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AN OVERALL EVALUATION OF THE
SPECIAL RURAL DEVELOPMENT PROGRAMME

1972

Carried out under the auspices of the
INSTITUTE FOR DEVELOPMENT STUDIES
University of Nairobi

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MINISTRY OF FINANCE AND PLANNING

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1973

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FOREWORD

This Report has been prepared by members of the University staff under the sponsorship of the Institute for Development Studies, as a result of a request from the Ministry of Finance and Planning to undertake a comprehensive evaluation of the Special Rural Development Programme for the period ending December, 1971. A draft of the main Report was made available to the Government in August, 1972, for a meeting of the officials involved with the SRDP. The Report has been revised as a result of the discussions at the meeting and in the light of comments received subsequently from University colleagues and Government officials.

It should be stressed that the Appendices form an integral part of the Report: those who read the main Report without its accompanying Appendices may find it somewhat abstract and pitched at a high level of generality. The Appendices provide not only a fuller analysis and supporting arguments for many of the points made in the main Report but they also capture the flavour and spirit of this pioneering effort in accelerated rural development.

The University through the Institute for Development Studies has been closely involved with the SRDP from the very beginning. It played a key role in the planning and organisation of the Kericho Conference which first stressed the need for an experimental, innovative effort at integrated rural development. The subsequent survey of rural areas on the basis of which the six SRDP areas were selected was also carried out by the University staff. They have continued their involvement in the Programme, as this Report shows, by direct participation in some of the strategies devised for rural development, and through their evaluative role, first as Area Evaluators and subsequently as a centre-based multi-disciplinary team of researchers and evaluators. At the same time, numerous papers have been written on various aspects of the SRDP and a number of workshops have been organised to discuss its principles, objectives and strategies.

It is appropriate, therefore, that the Institute should have been asked to undertake this important evaluation. The present Report is an outcome of a team effort, involving specialists in a wide range of social science disciplines and drawn from various departments in the University. The multi-disciplinary approach to research on development problems is an integral part of the basic philosophy of the Institute for Development Studies. It is hoped that the value of this approach will be fully demonstrated by the Report.

This Report has been prepared under an enormous pressure of time by individuals most of whom had already full-time teaching and research commitments.

The team consists of the following:

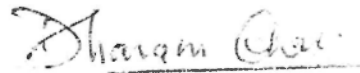
Dr. J. Ascroft	Dr. P. Mbithi	Mrs. M. Baily
Dr. N. Roling	Dr. J. Heyer	Mr. J. Kariuki
Dr. G. Gwyer	Mr. F. Hay	Dr. E. Baum
Dr. M. Mutiso	Miss S. Almy	Mr. G. Ruigu
Mr. W. Oyugi	Dr. M. Gachuhi	Miss C. Barnes

The Institute is greatly indebted to them, and in particular to Dr. J. Ascroft who was co-ordinator of the study, for the enormous amount of work they have put into this Report and for their persistence and dedication. In addition, the Institute acknowledges the assistance of Dr. J. Nellis and Mr. P. Mook in the initial stages of the evaluation project.

The main conclusions and findings of the evaluation are set out clearly in the Report and speak for themselves, but it may be in order to make a few points here. Perhaps the single most important conclusion that emerges from a reading of this Report is the need for better and more imaginative planning in all phases of the SRDP - in establishing objectives and targets, in selecting strategies and its individual components, in designing the pilot projects, in eliciting local participation, and in implementation and evaluation. Most of the faults and failures of the Programme can be traced to deficiencies in various phases of the planning process.

Some of the persons involved in the organisation and operation of SRDP may feel somewhat discouraged by the critical tone of the Report. It should, however, be remembered that one of the purposes of the evaluation was precisely to highlight the deficiencies in the objectives, strategies and implementation of SRDP, in order that these might be avoided in the future. A report which failed to do it would hardly have served that purpose. But more important, failures and drawbacks are inevitable in the early stages of an experimental programme like the SRDP. Any attempt to bring about dramatic improvement in the incomes and welfare of rural people through new approaches is by its very nature an extremely complex and arduous undertaking.

Not only is there need to think up new ideas, strategies and projects, but new organisational structures must be created, the bottlenecks caused by the ministerial structure and bureaucratic procedures overcome, and the energies and enthusiasm of the local people engaged in the development process. Judged by these exacting requirements, the SRDP has achieved a number of notable successes. Its basic principles and objectives continue to be valid. It is hoped that the present Report will make a valuable contribution to the improvement in the planning and operation of the SRDP in particular and the rural development programmes and policies in general.



Dharam Ghai
Director,
Institute for Development Studies,
University of Nairobi.

THE TERMS OF REFERENCE

The terms of reference of this evaluation are contained in a letter from the Director of the Institute for Development Studies to the Permanent Secretary Ministry of Finance and Planning, of which the following is an extract:

"The Permanent Secretary,
Ministry of Finance and Planning,
P.O. Box 30561,
NAIROBI.

For the attention of Mr. S.C. Mbindyo

Dear Sir,

Re: Overall Evaluation of S.R.D.P. - Period Ending
December, 1971.

We refer to your letter, EDP/SC 237/OI2, dated 22nd February, 1972, and subsequent series of discussions which we had with you.

We have already had a meeting during the course of which the terms of reference you gave us were thoroughly discussed. In principle we are satisfied with the terms but we believe that these may need slight modification as a result of the experience gained during the actual conduct of the evaluation. Accordingly, at the initial stage, we have slightly modified your terms of reference and the following suggested framework is presented:-

1. General Evaluation of SRDP Principles and Objectives

To evaluate the extent to which the principles and objectives have been so far achieved.

To determine whether the processes and procedures evolved and applied have been right or wrong, useful or not for planning and implementation and whether these processes can be improved or corrected for future planning and implementation.

To determine the degree to which the SRDP programmes are tending to reach their designated goals, and if not, what needs to be done to get them on target and to accelerate the process.

The above considerations might well lead to a re-statement of the SRDP principles and objectives along the following lines:-

To distinguish between principles and objectives and between levels of objectives.

To formulate more precise, less ambiguous definitions of principles and objectives, possibly making a plea for general acceptance of a standard set of definitions.

In defining objectives, to consider not only making them more detailed, but also to distinguish ultimate objectives, from intermediary or lower level objectives.

11. Specific Questions for Evaluation

Is the planning framework developed for SRDP adequate or effective to meet its principles and objectives?

In planning the SRDP, was the unexploited potential for development of each SRDP area adequately assessed?

Were the probable constraints preventing this potential from being maximally exploited adequately assessed?

To what extent are the strategies and approaches designed to accelerate rural development in SRDP area, newer and more effective than those which they replace or supersede?

Are the implementation stages effective enough to try out these new strategies and approaches?

Were the extra funds, staff, expertise, administrative costs, special training, equipment, etc., estimated for and provided to SRDP areas inadequate, adequate or more than adequate?

To what extent are the procedures, strategies and approaches devised for SRDP projects replicable in this country as a whole?

How effective has the role of the Area Co-ordinators, District Development Committees and the Ministry of Finance and Planning in its capacity of overall SRDP co-ordinator been?

To what extent have local communities been adequately involved in the planning and implementation of SRDP and to what extent has this involvement been premature, timely or too late?

To what extent are SRDP projects integrated or co-ordinated with on-going programmes and to what extent have on-going programmes been labelled SRDP?

In answering these questions, our evaluation will pay specific attention to the degree to which the procedures and processes utilized adhered to SRDP principles particularly with regard to SRDP goals. Recommendations for improvement will also be made.

III. Particular Projects for Evaluation

To evaluate the progress and strategies evolved for the following specific programmes:-

Migori Master Farmers and Roads Programme

The Mbere Cotton Programme

The Tetu Extension Pilot Project, Farm Management and 4K Club Programmes

The Vihiga Maize Credit Package

The Reporting System

In evaluating these specific programmes, we shall again pay particular attention to questions of adherence to SRDP principles and the achievement of SRDP goals. In addition, recommendations for improvement will be made.

IV. Overall Assessment and Summary of Recommendations

To provide an overview of the degree to which SRDP in general is adhering to the SRDP principles and objectives and how far these objectives are being achieved.

To provide general recommendations for improvement, giving some idea of priorities.

I look forward to hearing from you about this matter.

Yours sincerely,

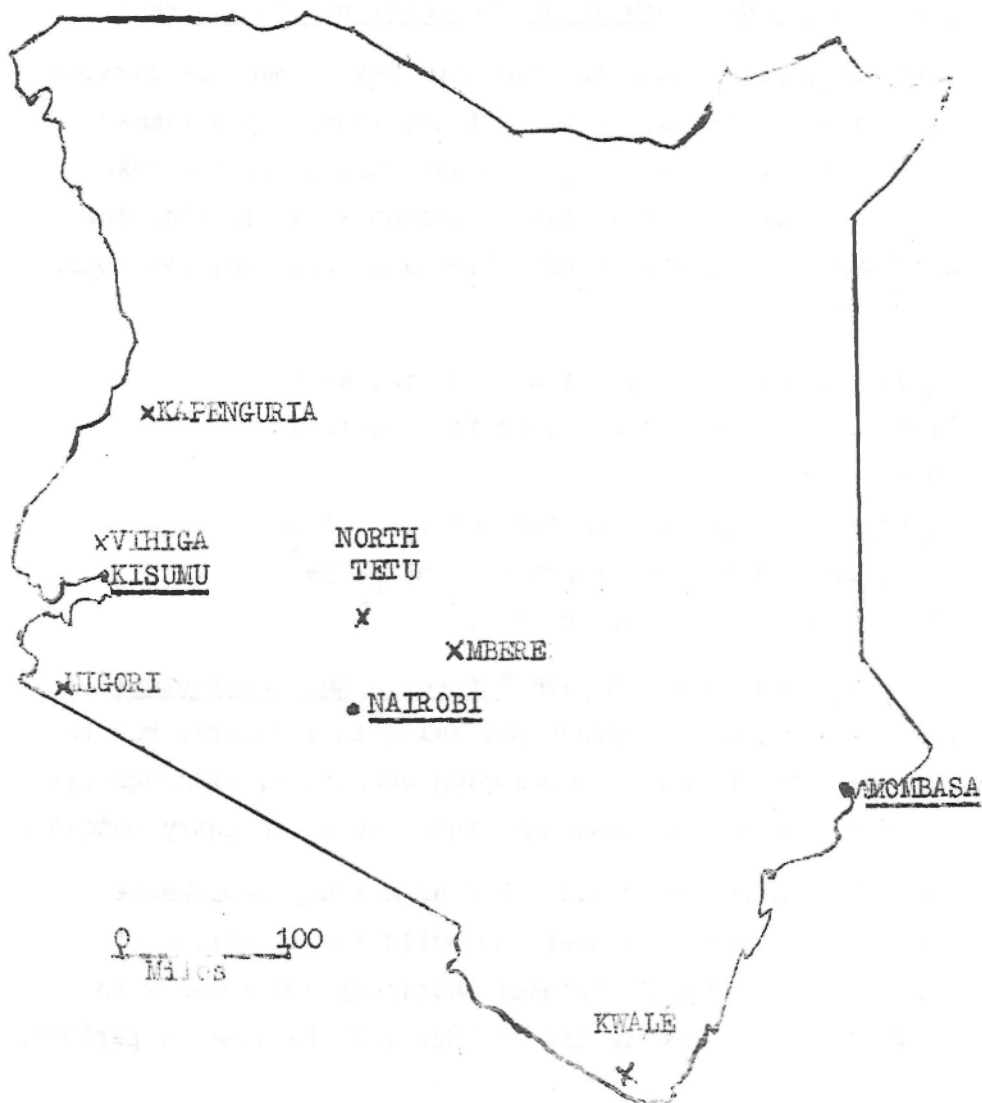
(Signed)

Dharam Ghai
Director."

Verbal agreement was reached between MFP and IDS on these terms of reference.

THE EVALUATION TEAM SUGGESTS THAT IN ORDER TO OBTAIN A QUICK OVERVIEW OF THE REPORT THE READER SHOULD PAY PARTICULAR ATTENTION TO THE FOLLOWING THREE BRIEF SECTIONS: IN THESE AN ATTEMPT IS MADE TO PLACE SRDP IN ITS WIDER SETTING, TO OUTLINE THE CONTENTS OF THE REPORT, AND TO PROVIDE A SHORT BUT THOROUGH RESUME OF ITS CONCLUSIONS AND RECOMMENDATIONS.

KENYA -- Location of Survey Areas



THE ROLE OF SRDP IN RURAL DEVELOPMENT

The terms of reference of the IDS SRDP evaluation team/request for an assessment of SRDP's achievement on the ground in terms of SRDP principles and objectives. They do not ask for an assessment of the role of SRDP in the Government's development machinery. Therefore, the main body of the report focuses on an evaluation of SRDP's achievements on the ground, and it is often critical of the achievements, not because it failed to take into account the short time SRDP has been in operation, but because SRDP has often lost sight of its own principles and objectives.

Nevertheless it would be a great mistake to conclude from our rather critical evaluation of SRDP achievements on the ground that we feel SRDP has failed. In fact, we share a firm belief that SRDP can make a very important contribution to the acceleration of rural development in Kenya. To explain the apparent contradiction between our sometimes critical attitude and our firm recommendation that SRDP is not only worthwhile but should be continued and strengthened, we have inserted this brief note to explain the crucial role of SRDP in Kenya's rural development machinery as we perceive it.

The main product of the development machinery is development.
The main product of SRDP is development of the development machinery.

The capacity of a government to stimulate development is limited by the availability of effective and efficient development programmes and projects. A development oriented government must therefore take active steps to increase their availability. Essential activities for enlarging and improving the arsenal of effective and efficient development programmes and projects are:

- (1) applied research: activities which increase scientific knowledge for a specific practical purpose, and
- (2) prototype testing: systematic development and small-scale testing of programmes and projects, prior to their wider application.

Together these activities comprise "Research and Development" (R&D). R&D absorbs a great deal of money and skill in industry, but is often neglected by the governments of developing countries, although its potential benefits for them are no less than those which industry obtains.

The authors of this report regard SRDP as a truly remarkable and innovative programme because it seeks to build the functions of Research and Development into the Government machinery concerned with promoting rural development. SRDP is indeed "Special" because it performs

R&D, not because it rapidly develops a few Divisions. Its funds are primarily designed to test the prototypes of promising programmes and projects and not to finance accelerated development of a few areas, although that may be an outcome of area-based prototype testing.

The main thrust of SRDP is to develop innovations in the administration of area-based programmes, in types of development projects, in methods of implementing them and so on. It seeks these innovations to develop projects, programmes and administrative capacity which are more effective and efficient in reaching the Government objective of raising the quality of human life than those hitherto in use. Once developed by SRDP these more effective and efficient programmes and projects can then be replicated on a wider basis, improving the development capacity of Government.

The R&D function of SRDP described above is not well understood. Some people believe, for instance, that the new District Planning exercise has replaced SRDP, while in reality SRDP is, of course, the prototype testing machinery for replicative District Planning. In fact, we recommend that mechanisms be developed for feeding SRDP results into the District Planning machinery.

The R&D function which SRDP performs is defined by the SRDP principles. If these are not respected, SRDP does not perform its R&D function. The first principle, experimentation, requires the conscious allocation of resources (experimental costs) to finding new or better programmes and projects for achieving desired objectives. These programmes and projects must be replicable in other parts of the country. Replication must be feasible, taking into account existing Kenya resources, and without vast infusion of external aid. Research and evaluation of each step in the planning and implementation process ensures that principles are adhered to, objectives are obtained and practical lessons are learned. Taken together these sound principles give specific content to the R&D function of SRDP. It is our conviction that adherence to these principles, and therefore, a sound performance of the R&D function by SRDP, can lead to accelerated rural development in Kenya.

Despite its short life to date, SRDP has already demonstrated the possibilities of area-based planning and development administration. It has therefore given a strong impetus to the recently initiated District Planning Policy, and has encouraged further decentralisation of development administration. SRDP has also initiated new systems:

for programming, monitoring and reporting on area programmes, systems which appear to have potential for country-wide replication. Much effort has also been devoted to developing prototype projects which promise more efficient and effective methods for achieving Government objectives, although, for reasons discussed at length in the Appendices, only a few of these projects have yet reached the replication stage. Nevertheless, lessons have been learned.

So far SRDP has concentrated narrowly on a small number of areas. However this is not a necessary component of SRDP except where the testing of programme prototypes (area co-ordination, area-based planning efforts, for example) is concerned. There is no reason why project prototype testing should not be distributed widely to different strategic parts of the country. Not all the benefits need accrue to a few areas. Making SRDP less concentrated on a few areas than it has hitherto been will allow it to focus less on a rapid comprehensive area development and more on developing and testing methods for overcoming specific problems encountered in rural development.

Specific recommendations have been made in the body of the report and it is not appropriate to repeat them here, but in examining SRDP in its wider setting we feel that it is important to note that the potential value of SRDP is diminished by its lack of authority. Therefore we make the following suggestions in order that SRDP might be strengthened, and its value more widely appreciated:

- (1) SRDP be administered by a top Kenyan of Deputy Secretary rank with the authority and credibility among field officers to make co-ordination of SRDP a realistic function;
- (2) SRDP appoint a Kenyan Programme Officer with high qualifications, field experience and a thorough understanding of SRDP principles, especially that of experimentation, who has the duty of
 - (a) ensuring that SRDP programmes and projects adhere to SRDP principles,
 - (b) identifying new approaches for prototype testing, and
 - (c) ensuring that SRDP optimally performs its

R&D function for accelerating Kenya's rural development.

- (3) SRDP seek assistance from an international organisation for the development of a multi-purpose proto-type testing unit to support the Programme Officer mentioned in (6). Such a unit would
 - (a) provide documentation and expert guidance for identifying and developing new approaches for proto-type testing,
 - (b) identify and give incentives to local entrepreneurs, who have pioneered agricultural and industrial enterprises which promise pay-off for rural development, to make their experience available,
 - (c) establish capacity and linkage to mobilise, make available and co-ordinate expertise for systematic experimentation and to assess the suitability of testing ventures such as crop/loan packages, methods of family planning extension, etc., and
 - (d) help disseminate SRDP results for replication and train Government officers in implementation of these programmes and projects.

In conclusion, we recommend that SRDP be judged on the usefulness of its R&D function, or its principles, and not as another form of area development. The substantial criticisms contained in this report should then be used to strengthen the programme by encouraging it to become the innovative arm of the Government's rural development machinery. Achievement of this promises to make a fundamental contribution to rural development in Kenya.

INTRODUCTION AND OUTLINE OF THE REPORT

This evaluation report differs from those which have preceded it. Earlier Special Rural Development Programme (SRDP) evaluation reports for the Ministry of Finance and Planning (MFP) have been of three main types:

1. The Chronicle of Events Report, such as the SRDP background reports from the Institute for Development Studies (IDS) detailing the sequence of events from the Kericho Conference onwards;
2. The Programme Progress Reports, such as the MFP and donor agency reports detailing the visible signs of SRDP projects and their rate of progress;
3. The Research Report, such as the IDS reports describing surveys undertaken, their findings and implications for strategy modification or development.

The reason for its exclusion from the above categories lies in the terms of reference of the present evaluation. These require the report to focus on those aspects of the SRDP which make it "Special", and to check whether, in the process of implementation, the Programme is continuing to be "Special". These unique features of SRDP emanate from the principles which are intended to guide the formulation and implementation of the Programme, influencing both what is attempted and how it is attempted. Only rarely have preceding evaluations systematically reviewed the extent to which the underlying principles of SRDP are being observed in the specification of its objectives and the choice of strategies of the Programme. The present report seeks to redress the balance by paying particular attention to evaluating the progress of SRDP in terms of its designated principles and objectives, and in so doing seeks to explain these principles and objective in as clear a way as possible. It is intended that this evaluation should remove any doubts as to the reason for distinguishing this rural development programme from all others, and give some measure of the considerable value to be attained from continuing to do so.

The report is divided initially into two separate parts: the "body" of the report, and the Appendices. The former contains the main evaluation in response to the terms of reference of the study, while the latter provides the greater part of the vast amount of information on which the main evaluation is based. In the interests of brevity these two have been kept separate, so that the discussion of SRDP principles and objectives could be considerably simplified. However, as a consequence, an unavoidable degree of abstraction characterises the former part. But abstraction has its uses, provided it clearly draws on field experience, and in turn provides conclusions which relate to that field experience; the Appendices are intended to show these

relationships in the form most relevant to field officers. Although each field officer will be most interested in the Appendix relating to his own area, it is strongly recommended that the Appendices be considered as a whole. Many lessons can be learned through the comparison of the experience in one area with that in another.

In turn the "body" of the report is divided into three sections. Part I contains a detailed elaboration of the principles of SRDP, a precise re-classification of the objectives of SRDP, and an attempt to associate the strategies of SRDP with the developmental bottlenecks they are intended to overcome. This centres around a functional model of SRDP, designed to aid discussion; the model is summarised in tabular form. In Part II are presented a number of case studies of important SRDP projects; these are intended to provide illustrative examples of the extent to which these projects are consistent with the principles of SRDP, and are attaining their designated objectives. In short they provide a first level of information on the field experience with particular strategies; the Appendices provide the second and more detailed level. Each summary contains abbreviated recommendations on the manner in which the project should be modified in the light of the relationship which it has attained with the principles and objectives of SRDP; these are developed in detail in the Appendices. Part III contains the general conclusions and recommendations. It should be stressed that these are of a general nature - i.e. they do not relate to specific aspects of individual projects, but instead seek to identify the common elements of all the projects. They are organised around specific questions contained in the terms of reference. The analysis in each of the Appendices has also been organised around these questions, though less explicitly so in the majority of the cases; the specific area and project conclusions are therefore contained in the Appendices.

It should therefore be apparent that considerable effort has been devoted to keeping strictly to the terms of reference of the evaluation, and to keeping the report as brief as possible. The Appendices exist as testimony to the impossibility of simultaneously achieving this and doing justice to the SRDP projects in the individual areas.

Several modifications have been introduced; for various reasons it has not been possible to provide appendices on the Tetu Farm Management Programme, or on the Reporting System, though a case study of the latter is included in Part II. However, appendices and case studies on Kapenguria and Kwale, and a further appendix on local participation, have been added, although these were not requested in the terms of reference.

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

This section attempts to provide a review of the main findings and recommendations which emerge from the evaluation. It must be stressed that these conclusions and recommendations relate to the terms of reference of the study, which set the broad limits of the evaluation, together with certain specific questions about the achievements of SRDP. Consequently it is not the function of this section to summarise all that has been achieved in SRDP, or to criticise or praise aspects of SRDP which are outside the terms of reference. Since the terms of reference concentrate on the adequacy of the specification of the principles underlying SRDP, and the formulation of the objectives of SRDP, the following conclusions and recommendations are similarly specific.

THE PRINCIPLES

The evaluation concludes that the principles of SRDP are not being faithfully observed because they are not well enough known or understood.

The four principles of SRDP - experimentation, replication, use of existing resources, and research and evaluation - are both necessary to distinguish SRDP from other rural development programmes, and sufficient to guide all types of planning within SRDP; they also appear to be operational. However, there are varying extents of understanding, and varying interpretations of these principles: some projects observe some of the principles, while others observe hardly any of the principles. Where the principles are ignored there is a tendency to concentrate on developing SRDP areas to their maximum, destroying the uniqueness of SRDP, at the expense of developing replicable programmes to benefit the country as a whole through the process of experimentation.

The prevailing approach in many sectors of SRDP is strongly reminiscent of a sports club which states its principle as "sportsmanship" and its objective as "the development of healthy minds and bodies", then assumes that all its activities adhere to its principle and promote its objective in some vague yet incontrovertible way, seldom if ever stopping to check the validity of this assumption critically and objectively.

It is strongly recommended that the four principles of SRDP be explained clearly to SRDP personnel at every level of Government from the top officials down to the lowliest junior field assistant and also to the rural folk themselves in SRDP areas.

Knowing the "rules of the game", the principles of SRDP, is the essential first step towards generating widespread involvement in

SRDP, whether as active participants or interested spectators. The following simple definitions of the principles are suggested as a starting-point for developing the necessary knowledge; they are developed at greater length in Part I, pages 3 to 10 .

Experimentation means trying out alternative strategies for attaining particular objectives, the trials being organised in ways which clearly show if the strategies can work (their feasibility), and, if they can, how well they work (the extent of their pay-off).

Replication means the extension or reproduction of successfully tested strategies elsewhere, under similar conditions; it follows the development of blueprints and prototypes of the successful strategy.

Use of Existing Resources means employing additional resources to meet only the extra experimental needs, scaled down progressively during subsequent replications to the level of normally-available on-going resources.

Research means, in this context, gathering and interpreting information relevant to pinpointing experimental objectives and strategies, while evaluation means gathering and interpreting relevant information about how well the strategies have worked to attain their objectives.

THE OBJECTIVES

The evaluation concludes that the objectives of SRDP as presently formulated ("ultimate" and "primary") do not provide clear-cut direction for SRDP projects. Some are too vague and general, some are wrongly classified as "ultimate" or "primary", and the present list has some notable omissions. It is recommended that the following reclassification and elaboration of the SRDP objectives be adopted:

Immediate Project Objectives

1. To increase agricultural, industrial and commercial output in SRDP areas.
2. To reduce unemployment in SRDP areas by increasing wage employment in private enterprise and public works.
3. To improve the extension, education, health and social public services in SRDP areas.
4. To increase decentralization of decision-making authority and responsibility in the SRDP areas.

Ultimate Programme Objectives

1. To generate incomes through agriculture, commerce and industry.
2. To generate physical, mental and social welfare.
3. To increase self-generating development of rural people through increased self-determinism, self reliance and capacity to sustain continuing growth and development.

The above scheme appears to provide an adequate set of goals to provide clear-cut direction of SRDP projects. The scheme is developed in detail in Part I, pages 13 to 15 .

The evaluation has reached the following general conclusions on the extent to which SRDP projects are presently achieving the ultimate objectives of SRDP:

1. Achieving Income Generation. SRDP to date has concentrated heavily upon pulling together programmes of agricultural projects with immediate objectives of increasing agricultural output. The master farmers project, the extension pilot project, the maize credit package, the cotton projects, the 4E clubs, farm management projects, and the holding grounds are cases in point. None of these is anywhere near fulfilling its objectives on a self-generating basis but this is because none of them has reached maturity yet. The emphasis upon the agricultural sector seems appropriate in view of the fact that it includes the majority of rural inhabitants.

A few projects are aimed at increasing commercial output. The loans to input stockists in Migori is the most advanced and experimental of these. Also included, however, is the involvement of local input stockists in the maize credit package and the Partnership for Productivity efforts. The Tetu extension pilot project is only now proposing to involve input stockists along the lines of the Migori project.

Hardly any experimental activity appears to be aimed at increasing industrial output. Efforts are being made through Partnership for Productivity and the construction of Rural Industrial Development Centres (RIDC) at Nyeri, Kakamega, and Embu, but these are marginal to the SRDP and lack clear-cut experimental content.

The achievement of reduced unemployment appears to be lagging. Information is lacking on the extent to which wage employment has been generated in the course of implementing projects to increase agricultural output; there is no monitoring procedure to check on this. Similarly, although experimental labour intensive techniques were planned for the

purpose of infrastructure construction, in the implementation process changes were made so that only insignificant numbers of wage earners are involved. Still to be implemented is the Vihiga labour-intensive road construction programme which, on paper, appears to be a more determined drive to reduce unemployment through public works.

2. Achieving Welfare Generation. (That is, improving the physical, mental, and social well-being of the inhabitants in ways other than directly increasing money incomes). Hardly any SRDP activity of a clear-cut experimental nature is discernible in this area. There are projects concerned with building and expanding educational, training and health facilities, but none of these appears to be testing alternative strategies for generating welfare development, except in so far as construction of facilities constitutes a supportive or integral part of experiments to increase output. The extensions to the Wambugu ETC may be regarded as connected to the extension pilot project, and the RIDCs may be prelude to focussed experimental activity. On the whole, SRDP is responsible for only hastening the implementation of projects aimed at generating this type of welfare.

The major exception to this generalization is the sequential implementation project in Kwale which places priority on water development. Provision of clean water for human and animal consumption has greater implications, at least in the short run, for generating health and welfare than for generating incomes. Almost all SRDP areas have water development projects, some supported through UNICEF. On the whole, however, they lack a clearcut experimental design and are more appropriately regarded as on-going projects.

3. Achieving Self-generating Development. The evaluation concludes that despite limited efforts in this direction, the goal of achieving self-generating development has not been attained, and is absent from many of the projects.

It is fair to say that this ultimate objective, which seeks to ensure that those projects which are implemented enable or stimulate the spontaneous emergence of further development effort from the local societies, is the hardest of all to attain. At the moment the benefits of many of the projects will end with the completion of the project, rather than the project successfully eliminating the constraints to "natural" development by the local people. There appear to be at least three reasons for this: in the drive to show visible signs of SRDP on the ground projects were implemented with undue haste; in the process of designing programmes and projects very little attention was paid to the long-run development path of an area; local participation in the

planning process and implementation of the projects was not sought to the necessary extent.

Self-determinism, or the capacity of the local people to select the most satisfactory development path and combinations of projects, has been given some attention in Tetu (the planning and implementation of the extension pilot project) and in Migori (the project advisory committee), but generally there has been a small degree of local participation. Even the DDCs are still largely instruments of Government. Self-reliance, or the ability of local people to find the necessary resources - apart from those to overcome bottlenecks - has not been encouraged, even although building up the local ability to plan could relieve the pressure on planning experts and avoid the mistakes of centralised selection and design of development projects. In general it appears to be the case that local abilities and ideas have been ignored, not to mention their misunderstanding and complaints.

On-going growth and development is the target of successful bottleneck identification and elimination; once the obstacles have been removed the special effort is withdrawn as the area should now be able to develop spontaneously. However, the very short planning horizon which has been adopted in most cases - related to the cursory assessments of both potential and constraints - does not extend beyond the life of the component projects. The lack of a long run view, and in particular the absence of an attempt to view the areas in a national context has contributed to an over-emphasis of agriculture, despite its relevance in a rural area. For example, without considering whether there was a need for a permanent general credit-providing institution in Vihiga, and experimenting with alternative forms, a narrowly specific and temporary credit scheme was instituted. Little effort has been put into the development of commercial, industrial, and other non-farm employment opportunities, although these might have been better integrated into a national policy to lessen the pressure of urban migration. If no effort is put into the attempt to bring about on-going growth and development, the only alternative to the status quo is prolonged welfare dependence on the central government.

It is recommended that efforts should be made to tap the considerable local resources for development through the training of leaders of local interest groups, and experimenting with different types of local responsibility in projects.

Finally it is recommended that attention should be distributed equitably across all objectives, since SRDP essentially involves the creation of an integrated programme of projects designed so that together they will achieve the overall ultimate goal of SRDP.

THE STRATEGIES

The evaluation concludes that the SRDP strategies which are being tried are confused partly because of the confusion among objectives of SRDP but also because no systematic attempt has been made to categorise the potential bottlenecks to development which the strategies are intended to overcome. In general the majority of strategies so far developed and currently being tested are familiar more-of-the-same old strategies rather than tailor-made strategies to fit the requirements of specific perceived bottlenecks.

What are the possible areas of bottlenecks? This question has often been asked in SRDP, but so far not answered with a systematic classification of bottleneck areas, which would make it evident to all where the search for likely strategies to overcome the bottlenecks would be most fruitful. It is recommended that the following classification of bottlenecks be adopted as a means of ensuring that strategies are selected in relation to an assessment of the obstacles to the greater attainment of objectives through existing strategies:

Project Bottlenecks: Searching for alternative area based strategies for overcoming:

1. Lack of knowledge and skills through education, training and extension, and research.
2. Lack of financial and material inputs of money, supplies and equipment.
3. Lack of internal and external markets to absorb surplus output.
4. Lack of infrastructural facilities and amenities.
5. Lack of people-involvement in project planning, design and execution.
6. Lack of employment opportunities through labour-intensive work schemes.

Programme Bottlenecks: Searching for administrative strategies for overcoming:

1. Lack of organization through co-ordination and integration.
2. Lack of control through intercommunication, monitoring and reporting systems.
3. Lack of planning resources through increasing problem solving capacities of area planning teams.
4. Lack of implementation resources through extra funds, equipment, staff, and a stable team of experts and technicians needed for experimentation.

These bottleneck areas should assist planners to identify those bottlenecks which are present in a particular area, and to concentrate on searching for strategies which can overcome them, and in so doing attain the SRDP objectives. This search must be distributed equitably across all the bottleneck sectors, and not just those associated with agricultural output or administrative organisation and control, as is the present work in SRDP. An elaboration of this classification will be found in Part I, pages 18 to 22 .

GENERAL CONCLUSION

The general recommendations outlined above have emerged from the development on a "Functional Model" of SRDP; this is discussed in detail in Part I. It is intended as a compact, handy summary of the principles, objectives, and strategies of SRDP, a ready reference for planners interested to know what SRDP is all about. But it can only be useful if skills are acquired through training in how best to use the model, and through practice in actually using it. It is therefore recommended that area teams take time to study the model carefully, to explain it to interested parties in the SRDP areas themselves, and to hold brain-storming seminars to elicit and develop feasible high pay-off strategies for overcoming development bottlenecks, to implement them in ways consistent with the principles of SRDP, so as to benefit the country as a whole.

In Part II of the evaluation a number of case studies of individual projects are listed. In reading them the reader should ask himself, in the light of the above conclusions and recommendations: Were the SRDP principles observed? Were the objectives stated clearly? Were all the likely bottlenecks taken into account? Are the strategies useful and replicable on a larger scale?

PART I
PRINCIPLES, OBJECTIVES, AND STRATEGIES
GENERAL COMMENTS

Short term wonders are rare events, miracles even rarer. It would have taken nothing short of a miracle to render SRDP a roaring, unqualified success after barely one year of full operation. Therefore, only the most unmitigated optimist could possibly have hoped for an SRDP unfolding on the ground in ideal form. On the contrary, it is only natural that its early days may be fraught with scepticism and controversy, for seldom is the birth of a new idea easy and effortless. But consider that five donor governments and many other international agencies have seen fit to support SRDP, and that so much unprecedented activity and change have been generated by SRDP, and that formerly half-hearted and uncommitted ministries are now being galvanized into SRDP action, and one gains some appreciation of just how far SRDP has come.

1.2 Let us suppose now that SRDP as a whole was divided into two phases, as indeed it originally was. Suppose further that the express and unavoidably necessary function of the first phase was to set up and test the SRDP administrative machinery, to see how well the methods and procedures envisaged for SRDP operated in practice, to determine whether unanticipated gaps and bottlenecks still remained. Then finally suppose an SRDP having systematically evaluated itself, corrected its errors and focussed itself more clearly upon attaining its objectives in a business-like way. Given these suppositions, then it cannot be denied that the SRDP has been remarkably successful in revealing its own shortcomings and now stands ready to move forward into its second and potentially most profitable phase with renewed zeal and confidence. We therefore recommend in all sincerity that this be the view adopted by all parties concerned in the development and promotion of an SRDP which promises to become a unique and valuable contribution in the world today, rather than merely a unique funding system.

1.3 To be a useful constructive exercise, however, the present evaluation must be unreservedly critical when necessary while also paying due credit where deserved. We learn both from failure and success and we would be remiss in our duty if we glossed over either result.

1.4 By its very name SRDP is in some way "Special", that is different from other rural development activities. What makes it different? Not its ultimate aims, which are the same as any other development effort, nor the means which will be employed, as these may duplicate the measures adopted in other schemes. The essential contrast with other efforts lies in the motives behind the Programme which may be summarised as finding

planning and implementation procedures of general relevance throughout Kenya for hastening development. These motives are given substance by the principles of SRDP, the related objectives, and the strategies which emanate from them.

1.5 In this largely methodological section an attempt is made to explain the principles, objectives, and strategies of SRDP as clearly and concisely as possible. Because this is a complicated issue the evaluators have developed a functional model of SRDP, to systematise the discussion and analysis. It is also hoped that the model forms a framework to provide clear guidelines for planning and implementing SRDP **projects and programmes**. It has been called functional because it **emphasises** the different roles of principles, objectives, and strategies in the operation of SRDP, and examines the relationships between one and the other. Normally such a model should be prepared before the event, as would the plans for the construction of a house. This one, however, is an ex post ^{facto} blueprint, prepared to evaluate on-going "construction". Since SRDP is still young enough to change this is not a considerable drawback; it is hoped that the model will prove useful in indicating the modifications required to ensure that SRDP has a more disciplined up-bringing. The model, in tabular form, is presented on page 11 and it is suggested that during the following discussion reference be continually made to it.

THE RELEVANCE OF PRINCIPLES, OBJECTIVES, AND STRATEGIES

1.6 At this stage in the discussion it is appropriate to insert a few words on the general relevance of principles, objectives, and strategies to the issue of hastening rural development. The most useful way may be by analogy with various sporting activities. Any sporting activity, if it is not to degenerate into chaos, requires rules. These perform two functions: they impose discipline, indicating specifically what kind of behaviour on the part of the participants is permitted, and they differentiate one game from the other - football and hockey are quite different because their rules are different. The counterpart here is the principles of SRDP; at one and the same time they indicate the kinds of activities which will be permitted within SRDP, and show how different, or "special", it is compared with other development programmes. Hence a lot of stress is laid on acquiring a knowledge of the principles of SRDP, in order that the "game" may be played well.

1.7 Participants in sporting activities usually have a variety of aims: the footballer may seek to win the game in which he is playing at the moment, and, less immediately, he may seek to keep fit through playing football. He is only liable to attain the second aim if he participates in

many games of football. It should also be noted that he puts effort into winning the game, because it is an objective of the rules of football - the winner is the one who scores more goals. The aims of the sporting activity find their counterpart in the objectives of SRDP - these have to be consistent with the "rules" or principles of SRDP, and two different levels of objectives may be distinguished, corresponding to winning the individual game (the immediate project objectives of SRDP,) and keeping fit (the ultimate programme objectives of SRDP).

1.8 Finally the participant in a sporting activity is always trying out new strategies which will help him to win the game. For example, the long distance runner may choose from setting the pace for the other runners, bunching with his competitors, or trailing behind the field with the intention of sprinting past near the end of the race. But he will not indulge in strategies which are inconsistent with his aim of winning flat out at the beginning of the race, or in strategies which though they might permit him to finish the race first will lead to his disqualification under the rules of the game, such as striking his opponents or taking a short cut. So, too, in SRDP the selected strategies have to be both consistent with the objectives, and permitted by the principles.

1.9 But the runner's choice of strategy depends very much on what he considers to be the principal obstacles to his winning a particular race, as repetition of the same old strategies may not always be successful. So he selects his strategy in response to what he considers to be the main threat - a particular competitor, or the condition of the track. In the same way the SRDP strategies should be selected in relation to perceived difficulties, or bottlenecks, in order to overcome them.

1.10 The ensuing discussion attempts to set out precisely the rules of SRDP, the kinds of targets it has, and the kinds of strategies which may be employed in SRDP to get round the typical obstacles to rural development.

THE SRDP PRINCIPLES

1.11 The Development Plan 1970-74 states three guiding principles of SRDP experimentation, replication, and the use of existing resources; a fourth, research and evaluation is implicit in these. Regarding experimentation, the Development Plan notes that SRDP

"is an experimental programme, that it is intended to provide experience in conception, design and execution of comprehensive rural development."

Of replication, the plan states that one of the

"fundamental principles of the whole programme is that projects and methods that are proved successful in the pilot areas can be reproduced in other similar areas subsequently."

On using existing resources, the Plan contends that a

"fundamental principle is to utilise existing resources of staff and finance as far as possible, and to seek external assistance to support what will, in effect, be a large scale self-help effort."

The fourth principle, research and evaluation, is implicit in the preceding three because they necessarily involve research and evaluation if they are to become operational. It was also given explicit emphasis by the National Rural Development Council, an emphasis which led to the IDS being allocated the task of research and evaluation.

1.12 If these four principles are to effectively guide the development of SRDP they must be clearly known and understood by all those involved in the control of SRDP. The following discussion is provided to ensure that this is so.

The Principle of Experimentation

1.13 Experimentation is the most important of the SRDP principles; if it is not fully understood the importance of adherence to the others cannot be adequately grasped. Furthermore, the "special" quality of SRDP may be seen to hinge on the principle of experimentation: if there is no experimentation in SRDP, then it is no different from other programmes which seek to maximise the development of particular rural localities. Experimentation involves testing alternative strategies for the attainment of particular objectives, in order to show if the strategies can work (their feasibility), and, if they can, how well they work (the extent of their pay-off). Thus far it is an innocuous concept. Nevertheless, it appears to be little known in SRDP circles, and those who know of it are uncertain or sceptical of its applicability in field situations. This appears to be because feasibility-testing and measurement of pay-offs involves more planning and systematisation of experimental procedures than at first appears to be necessary. Experimental testing involves comparison of one strategy with another to find out which works best under specific conditions. New, different, or improved strategies may be compared with existing ones, or compared with each other; labour-intensive construction methods may be compared with machine-intensive methods, or sequential implementation with integrated implementation, or the provision of credit with the provision of extension advice. But the essence of comparison of such processes requires the following three preconditions:

- (1) it must be possible to distinguish between the strategies being assessed, and to attribute outcomes to separate strategies;
- (2) the strategies must have clearly defined objectives, to give meaning to "success" and "failure";
- (3) if possible the objectives should be stated in forms which are measurable, so that the extent of their success may be assessed.

1.14 If these three preconditions are not met, the principle of experimentation has been neglected; it will be impossible to carry out any effective comparison of strategies, and a choice from amongst them would virtually be a random selection. If the effectiveness of a new fertiliser were being tested the planning procedures to ensure that objective results could be attained would be obvious; there does not appear to be any reason why planning procedures to attain the same objective assessment cannot be devised for field testing of more elaborate strategies, such as the effectiveness of a particular method of introducing credit, or a particular method of encouraging the adoption of a new technique. The only factor which makes this task more difficult is that human response to the strategy is the focus of attention, rather than the merely technical response of a crop to a fertiliser.

1.15 Attempts to meet these three preconditions encounter varying degrees of difficulty, depending on the nature of the objectives and the strategies being tested. For example, the level of success attained by a strategy (or combination of strategies) to introduce a new agricultural crop may be more easily ascertained than the success of one seeking to increase the adoption or output of an existing crop, already being actively encouraged through a variety of measures. In the latter case it is considerably more difficult to attribute results specifically to the newly-introduced strategy (or combination of strategies). A case in point is the Vihiga Maize Credit Package: there it is not possible to attribute increases in hybrid maize output specifically to the strategy being tested (the provision of a combination of tied credit and extension supervision), rather than to the factors which were already contributing to increased output, such as the demonstration effect from already-successful innovators, of local fertiliser trials.

1.16 Targets or objectives must be stated clearly and unambiguously; it is poor experimentation if either too many objectives are stated, or if they are stated in too general or idealistic terms. The Mberu Cotton Blocks Project was guilty of committing the former fault -

it was difficult to see which objective of several was being aimed at, while the Tetu 4K Club Project fell into latter trap.

The Principle of Replication

1.17 Replication is the extension or reproduction of successfully tested strategies elsewhere, under similar conditions; it follows the development of blueprints, and prototypes of the successful strategy. The blueprint is the documentation of the procedures used to attain the selected objective, while the prototype of the strategy is the final improved form, implemented and in operation, the teething troubles having been overcome. Possession of the blueprint, and the ability to observe the operation of the prototype, strengthen the likelihood of successful replication. Replication may involve increasing participation within the pilot area, as well as extending the strategy to other areas.

1.18 The ease with which replication may be achieved can be exaggerated, for the following reasons:

- (a) it is not always easy to know at which point an experiment becomes ready for replication, i.e. a successful prototype has been developed. This is particularly true where several strategies have been combined in a single project, and it may be necessary to delay replication until it becomes possible to test the effects of each element of the package;
- (b) it is not always easy to ensure that the area for replication possesses the same conditions as those of the experimental area;
- (c) it is not always easy to separate the direct experimental input from the successful prototype: it is only the latter which is to be replicated, and not the trial and error processes and specialised inputs necessary for the creation of a successful prototype. However, there may be confusion between them, as, for example, in the case of wide publicity accorded a project: has it materially contributed to its success - and therefore should be replicated as part of the prototype - or is it just one of the special experimental inputs? Indeed, replications immediately succeeding experimentation may have to employ some of the specialised experimental inputs, and only after successive replications will the experimental costs come down to manageable levels.

THE MAIZE CREDIT PACKAGE.

There are two distinct parts of the maize credit package which are discussed separately: (1) the encouragement of hybrid maize production ; (2) the use of tied credit provision as a means of encouragement. It is felt that the appropriateness of the emphasis on hybrid maize is quite separate from the issue of whether or not the provision of tied credit was the right way to encourage it. Before examining these two separate issues, the objectives of the maize credit package are considered.

The Objectives:

The immediate objectives of the maize credit package have been variously stated as:

1. "Promotion of.. intensification of smallholder production of..... hybrid maize (through improved availability of seeds and fertiliser and demonstration of proper planting techniques) to raise yields and reduce total maize acreage" (2, p.2);
2. "To achieve self sufficiency in maize through increased yields; to reduce acreage for transfer to cattle and pig production" (2, p.8);
3. "... maize should be encouraged only to the point of self sufficiency for the family. This would require about 15 bags per year (per farm)" (6. p.3);
4. "Its primary purpose (is) to make Vihiga Division self-supporting in maize" (15, p.1);
5. "... self sufficiency of the area in the production of maize!.. (12, p.5);

These objectives need further clarification. The question of self-sufficiency is confused: is it envisaged that each family will be self-sufficient, or that the Division as a whole will achieve self-sufficiency through specialisation within the Division, or is self-sufficiency envisaged on a wider or narrower basis than the Division, the 'area'? Secondly, there is the question of the reduced acreage of maize: is it intended to reduce the maize acreage because it is not profitable to produce a surplus beyond that required for self-sufficiency however defined? This is related to the question of which alternative products are to accompany maize: that is the rest of the programme which so far has been insufficiently developed.

The instrumental objective of the package has been stated as:

To create "... an experimental small-holder credit scheme...(the) loans to be secured by the harvest of the borrowers" (13, p.5), backed up by an intensive extension effort.

It has already been pointed out that the practical problems of initiating such a scheme have led to the emergence of a marked divergence between the intended form of the package and its actual achievement. The experimental features of the package have been lost, partly due to a failure to spell out the implications of the instrumental objective at an early stage. Had this been done, it would have become clear that there was a conflict between an experimental package, and a package that could be justified on grounds acceptable to the agencies chosen to implement the scheme. These points are discussed further below.

The ultimate objective is also worthy of consideration:

"optimising the level of income received by the average farmer in Vihiga" (14).

The link between attaining self-sufficiency in maize requirements and improving the level of income in Vihiga is not elaborated upon explicitly in any of the documents. Nor is any attention devoted to the distributional aspects of the package. The stated objective of attaining self-sufficiency for each and every individual farmer has a clear distribution association, but there is no analysis of the likely outcomes of the programme and whether they are consistent with the distributional intentions of the package. The alternative formulation - self-sufficiency through the specialisation of the few - evidently has a very different implication with regard to the distribution of the gains from the package, though in the long run it is not necessarily less equitable than the other approach.

It is evident that the objectives of the maize credit scheme have been imprecisely specified, a deficiency stemming in part from the poor factual basis available to the planners, but also from their apparent disinclination to examine the wider implications of the project in terms of individual and overall behaviour. The micro aspects of the project have been poorly bonded to the macro dimensions of the objectives.

The Choice of Maize:

Three reasons appear to underlie the choice of maize: Vihiga is considered to be a deficit area; it is considered to possess a physical environment suitable for hybrid maize; and it is felt that a densely populated area should feed itself. In the first place, the basis for considering Vihiga a deficit area has not been stated in any of the documents.

The most satisfactory way of establishing whether a deficit exists is through the collection of simple market information. Possibly the Division imports maize from other areas to make up for a shortfall in its domestic production, but there is insufficient information to establish this. Sources, quantities, prices, and the market mechanisms which affect this are not mentioned. It is possible that maize is sold at one time of the year and bought at another, and there would be no deficit at all if adequate maize storage facilities were available in Vihiga. The alternative way to calculate the deficit is from estimates of the consumption requirements of the population and actual production in the Division, but this approach raised serious problems. It involves a strong assumption regarding the desirable proportion of maize in the diet of Vihigans, and it is critically affected by the accuracy of the estimates of maize acreages and yields. In section II it was suggested that there may be a deficit estimated in this way, but the weaknesses of this method of estimation were also stressed. The collection of appropriate market information is recommended to establish whether or not there is a maize deficit.

Vihiga does appear to possess a physical environment that is well suited to the production of hybrid maize. What is questionable, though, is the desirability of focussing so heavily on maize at the expense of other alternatives.

The question of self-sufficiency is most perplexing: should a densely populated area feed itself? It has been argued that because Vihiga is a 'bedroom' community, and Vihigans are interested in farming to satisfy only their food requirements, it is logical to devise a programme to encourage food production, enabling Vihigans to produce their food instead of purchasing it. However this confuses the desire to increase the availability of maize or other foods in the Division with the **objective of achieving this through** increased maize production. Apart from the question of whether it is additional maize or additional foods of other kinds that are needed, there is the question of whether it might be cheaper to import maize in exchange for other farm produce than to produce it directly. It is not always worthwhile to produce all of one's food supply locally. The alternative of producing more of other products that can be exchanged on the market for maize, is generally open, and may increase the availability of maize more than by increased maize production. It is possible that there already is a substantial trade in maize between Vihiga and other Divisions and Districts; this may be the most economic way of obtaining maize for consumption. If it is to be worthwhile for Vihiga farmers to produce more maize, returns to both land and labour must be attractive relative to other alternatives. Simple comparative return figures for alternative possible products do not appear to have been estimated at any stage, although they are crucial to farmers' desires to expand maize rather than other lines of production. Unless it can be established that maize offers one of the most attractive labour and land returns, it should not be encouraged.

If it is worthwhile to produce maize for domestic consumption, it may also be worthwhile to produce for other markets in Kenya or elsewhere, rather than drawing the line at local self-sufficiency. However, once the local consumption market is satisfied it is to be expected that the price will fall to take account of transport and other costs involved. If export is involved then the price would fall to the export parity price; if the utilisation of maize for stock feed is contemplated then the price would be even lower. What level of production of maize - and therefore supplying which markets - will provide a sufficiently high return to land and labour? The prices vary considerably over time and between markets. At the moment local prices are said to range between Shs: 70.00 and Shs: 30.00; the buying price of the Maize and Produce Board is at present about Shs: 35.00; the export parity price might be about Shs: 20.00; the value as stock feed could be as low as Shs: 15.00. The range is sufficiently wide to suggest that at the same price level within the range alternative products will become more profitable.

There is also the question of whether all farmers should be encouraged to grow hybrid maize or only some; the objectives of the maize credit package are not sufficiently explicit as to whether Vihiga is expected to become self-sufficient through specialisation or individual self-sufficiency on each farm. At present an average of one acre of maize per farm is grown, but the productivity increases were envisaged as sufficiently high to allow self-sufficiency to be achieved on a smaller acreage than at present. The loan for the recommended inputs for one acre of maize amounts to shs: 105.00. The price of maize at the time when the loan has to be repaid is apparently shs: 30.00 or less. Thus, at least 3.5 bags of maize are required to repay the loan. If self-sufficiency is to be achieved, at 15 bags per family, 18.5 bags per acre need to be produced on the present acreage, more if the acreage is to be reduced. This represents an increase of 10-12 bags per acre over the present mean of 6-8 bags, without reducing the acreage. This requirement is reduced to the extent that maize requirements per family are overestimated at 15 bags, and to the extent that a second crop makes some contribution to the maize supply. However, it is clear that very much improved husbandry techniques would be required to achieve individual self-sufficiency, and this requires a level of labour and skills which not all farmers have.

The second formulation of the objective requires rather different responses. Self-sufficiency for the Division could be achieved through a higher degree of specialisation (though not the creation of a monoculture) of some farmers in the production of maize for sale in addition to home consumption. It is quite likely that some farmers in Vihiga are already doing this. The 600-

farmer survey show that a minority of farmers have very high maize yields (10 per cent had yields over 16 bags per acre in the 1970 long rains), and a minority grow relatively large acreages of maize (11 per cent grew more than 2 acres in the 1970 long rains), (1, Tables 34 and 37). If these two groups coincided, and if the means for this group were 3 acres of maize and a yield of 18 bags per acre, a farm belonging to this group could provide sufficient maize to meet the subsistence requirements of 6 families (at 15 bags per family per year) including the farm family itself. If 16 per cent of the farms fell into this group, Vihiga could be self-sufficient with no maize at all on other farms, provided that the surplus maize could be purchased by those not growing maize on their own farms. In practice of course some maize would probably continue to be produced on most farms, for some time, reducing the required degree of specialisation. The implications of this approach might include the need to devote more acreage on the specialising farms to the production of maize instead of reducing the acreage; it might also involve the encouragement of the specialising farms, i.e. possibly an acceleration of a process which is already going on. Unfortunately, there is very little information on the existing pattern of grain movements in the Division, consequently it is not possible to assess the extent to which there **are already incentives** towards specialisation in maize production. However, **it is evident** that the approach to meeting the maize deficit through the specialisation of a minority of farmers is a distinct alternative that would require very different policies on the part of the Government.

Finally, there is the choice of hybrid rather than local or synthetic maize. Hybrid is not necessarily superior to local or synthetic maize varieties for all farmers. Hybrid maize needs a high standard of husbandry and an intensive use of complementary inputs to be a successful competitor to local maize. It may be a suitable product for skilled entrepreneurs and for those with ample resources. It may not be suitable for others. In 1970, 47 per cent of all farmers in Vihiga grew hybrid maize, and 59 per cent had tried it at one time or another (1, Table 23, 24). It could be that 47 per cent is about the proportion for whom it is worthwhile, (although there may still be some room for expansion). Perhaps the remaining 53 per cent would do better to continue with the local maize variety or take up synthetic maize. Synthetic maize, which is less demanding than hybrid maize in terms of husbandry and complementary inputs, and which has the advantage of meeting its own subsequent seed requirements appears not to have been seriously considered recently (33). The possibility that for quite a large number of farmers local maize might be superior to hybrid maize appears not to have been considered in Vihiga SRDP discussions. It may be that hybrid maize has now reached most of the farms on which it is worthwhile, and that it would be a more productive use of resources to turn to something else

now that the hybrid maize "plateau" has been reached. This possibility should be seriously considered.

In summary, it is recommended that hybrid maize continue to be encouraged in Vihiga, but not for all farmers and not exclusively. The extent to which the production of hybrid maize is to be encouraged should be reconsidered, and several other products should be added quickly to accompany maize. Promotion of hybrid maize alone is unlikely to benefit all farmers, and even for those who are encouraged to grow hybrid maize it may be appropriate to combine it with other products; these are also in need of encouragement. It is strongly recommended that the active promotion of additional products of relevance to large numbers of farmers in Vihiga should become a central component of the agricultural programme. These additional products could be identified initially through the collection of farm profitability estimates, and through consultations with agriculturalists familiar with Vihiga conditions, a point developed below.

The Recommended Input Package:

The husbandry and input practices recommended in the maize credit package appear to be satisfactory, apart from the fact that the rates of application of fertiliser are substantially lower than those recommended by Kitale. The overestimation of acreages compensated in part for the use of the lower rate in the first year, but in the second year acreages were more accurately measured and the error may have been more serious. The Kitale recommendation was 60 lbs. P_2O_5 and 75 lbs. N per acre; the loan was for approximately 46 lbs. of each per acre. This meant that low application rates were achieved, but it also meant that farmers may have been seriously misinstructed over ~~the~~ use of fertiliser, and this could be regarded as a very damaging criticism, although it is possible that the economically efficient package does indeed involve lower rates of application than the technically efficient package that might emerge in recommendations from an agricultural research station.† This possibility should be actively considered.

† Technically efficient recommendations are often geared to maximising yields per acre whereas economically efficient recommendations involve maximising returns to other factors as well as land.

Questions should also be raised as to the extent to which the recommended inputs are already being applied by farmers, and the extent to which further encouragement is needed. In the 1970 long rains, 47 per cent of Vihiga farmers were growing hybrid maize as already mentioned; 41 per cent were using chemical fertilisers, not necessarily both the recommended ones and not necessarily the recommended rates; and 20 per cent were using insecticides, (1, Tables 23, 24, 29 and 31). Thus, both fertilisers and insecticides were already used by substantial numbers of farmers. The advisability of encouraging the extension of their use is not open to question, but this has been overemphasised in some of the Vihiga documents, and relatively little attention has been paid to the fact that substantial numbers of farmers already use these inputs. Therefore it is recommended that the emphasis be shifted away from the most progressive farmers who already use the inputs, to the less progressive farmers who do not.

The Mechanism for Getting the Package Adopted:

The second major issue is the use of tied supervised credit provision as a means of encouraging the adoption of hybrid maize and the recommended inputs. Assuming that it is important to get more people growing hybrid maize and using the recommended package of inputs (which is questionable), there are alternative methods of achieving this. Should the emphasis be on extension (what kind of extension?), farmer training, demonstrations, subsidised inputs, or credit (what kind of credit?) provision, or on a combination of these and other alternatives? The Vihiga programme relies heavily on tied - credit provision and intensive extension contact for the few. There are also fertiliser demonstrations which are part of a larger programme organised by FAO. Most of the discussion relates to the credit programme as there has been no opportunity to look into the extension programme at all fully.

Is the provision of credit the most appropriate method of encouraging the further adoption of hybrid maize? It always seems to be popular with those who want a tangible agricultural development programme, and it seems to be a favourite with donors who want to spend funds. But it is rarely made clear what credit is, or under what conditions a lack of credit constitutes a constraint. The essence of credit is that it provides an opportunity to defer payment for goods and services, an opportunity which is attractive because the incurring of costs has to precede the receipt of revenue by the duration of the production and marketing processes (in agriculture a relatively long period). It is a cash-flow problem, a problem of timely availability of funds which gives rise to the need for credit, and since this is common to virtually all agricultural

processes, it may be inferred from the active pursuit of existing enterprises in Vilhga that many cash-flow problems are somehow surmounted. Possibly the producer retains a larger cash balance between sale of one crop and purchase of the inputs for the subsequent ones; possibly he may ensure that remittances of non-farm income coincide with these expenditures; possibly he borrows; possibly he reduces consumption. However, it is invalid to infer from the mere fact that an innovation has not been adopted, or that a higher level of output has not been attained that the cash-flow problem, and therefore lack of credit, is the operative constraint. The further information has to be provided that the farmer is sufficiently confident that additional resources will yield a positive net return in a particular use, taking due account of the risk and uncertainty, and that lower-cost or more attractive internal solutions to the cash-flow problem are not available. One reason for the non-provision of credit may be the lack of demand for it due to the producer's perception of the non-profitability of an innovation, or of the non-profitability of an expanded level of output of a particular product.

There are other reasons for the non-provision of credit: one is the absence of effective security. (It has to be effective; a land title may not be effective security if it is unlikely that the creditor will be permitted to **dispossess** the owner in the event of non-repayment). Generally credit of the **"seed-time to harvest"** type - i.e. to meet current outgoings, not capital **expenses - requires little in** the way of security, but much in the way of **efficient administration**. Security is confidence, and reputation is the **conventional** guide to confidence where there is no history of credit repayment. But this can only be put to effective use if there is an intricate network of credit agencies capable of assessing credit-worthiness.

Another explanation of the apparent absence of credit-provision is that there is no market for it - not simply that there is no demand for it, but that there is no demand at commercial rates, and therefore no incentive for the creation of the network of outlets necessary to establish the optimal allocation of available funds. This brings the argument back to the profitability of the enterprises which could potentially be users of credit. Due to the many alternative uses of funds the provision of credit to a particular use is not without its costs; the concept of free or subsidised credit is a distortion of reality, and is certainly not replicable on a national level. It is a moot point that where a network of credit agencies has not become established the subsidisation of credit provision may be an appropriate measure, but such a subsidy should be directed towards the lender, not the borrower, if a replicable scheme is to be developed. From the above discussion the following conclusion

emerges; the provision of credit in Vihiga is justified if it is directed to those producers for whom the cash-flow problem is the principal reason for not taking up hybrid maize and for whom hybrid maize production is sufficiently profitable after allowing for the cost of the credit. It goes without saying that if the immediate objective is the increased adoption of hybrid maize then it should go to the producers in this category who have not yet grown hybrid maize. This may not be necessary if the objective is simply to increase the production of maize.

There is a second justification of the provision of credit: if the constraint is the lack of appropriate husbandry skills, and the strategy to make good this deficiency is intensive extension supervision, it may improve the impact of this input if credit is also offered. It is argued that credit provides the excuse to concentrate on a few farms, that it gives an entree into the farms and a means of putting pressure on the farmers, and that it raises the morale of the extension officials and farmers involved. These may be sufficient grounds for ignoring the requirements of the preceding justification, and giving credit where there is in fact no credit constraint. In addition to the increased impact of the extension services achieved in this way, there are also benefits to be derived from the fact that the credit provided probably displaces other funds and permits their allocation to other uses. So the second conclusion is that the provision of credit in Vihiga is justified if it is directed to those producers selected as being likely to benefit most from intensive extension supervision, i.e. those for whom the principal constraint in the production of hybrid maize is the lack of the appropriate knowledge, and who are likely to respond to the "bribe".

There is no evidence to show that either justification of the provision of credit guided action in Vihiga. The absence of any profitability estimates regarding the adoption or increased production of hybrid maize has been **remarked** upon already, so those for whom the lack of credit was a constraint could **not** be identified. Credit was obtained by some who would not be regarded as experiencing a shortage of internal funds - though that in itself is not positive proof that they do not "need" the credit, since it is in the nature of things that when individual's command over resources is limited the offer of more, particularly when it is free, is rarely refused. However, it is quite clear that some of those qualifying for credit had already adopted hybrid maize and were already applying the recommended practices; their inclusion in the scheme is certainly not justified on the grounds of their need to obtain the extension supervision.

The inevitability of this outcome is discussed below, in the course of examining the details of the scheme.

The type of credit chosen for Vihiga is short-term "seed-time to harvest", and it is tied to the purchase of specified inputs. The implications of this choice should be considered. Firstly there is the assumption that the constraint is the absence of funds to meet current outgoings, and not to purchase capital assets (storage facilities, for example). The implication is that such an injection would have to be repeated annually, but in fact this issue was never discussed. Indeed it may be that the rationale underlying the project was to permit the producer to raise his productivity to a new higher level which would permit him to be self-sufficient after the first injection. If this were the case it may well justify the provision of credit at less than commercial rates, and this arrangement might be replicable over the whole country, a small area at a time. It is strongly recommended that this issue be given consideration, in order to establish whether the credit should be provided on non-commercial terms (as in the first year when no charge was made) or commercial ⁺ terms (as in the second year).

Secondly, it is tied to material inputs of specified types (as well as to intensive supervision), and is not available to finance other current expenses such as the hiring of labour. These complementary inputs have to be found and paid for by the farmer himself. This reveals the implicit objective of the project, and the particular interpretation of the resource endowment of the area:

its purpose is to "benefit farmers with a surplus of family labour but with insufficient funds at planting time to purchase..... seed, fertiliser, and insecticide" (16, p.1).

It should be pointed out that the original proposal by Harmon (US AID) included labour as eligible for credit; this was later ignored or dropped.

Thirdly, the loan is in kind but repayment has to be in cash implying that at least part of the crop must be sold for cash, or cash must be diverted from other uses to repay the loan. This conflicts with the idea of individual self-sufficiency and nil dependence on a local maize market, but not with the idea of self-sufficiency for the Division through individual specialisation.

⁺ Strictly speaking, less than commercial terms; there were apparently no attempts to cost the exercise or to compare interest rates with those determined under commercial conditions.

Fourthly, the concept of a growing crop as security for a loan is self-contradictory: the crop must be consumed or sold, and either way the security can disappear while the obligation to repay remains. Only if the crop is marketed through a parastatal authority is control retained when the crop is disposed of on the market, and only then can the crop be employed as security against a loan. Under these conditions a broadly-based credit scheme is possible, paying little attention to selection criteria, but even then there are problems of black markets, and what to do if output fails. However, in the Vihiga case no control is maintained over the marketing of the crop; consequently alternative means of enforcing or encouraging repayment are required. To this mistaken view of the security offered by a growing crop may be attributed the restriction of the credit scheme to producers who satisfied fairly stringent and restrictive criteria, and the emergence of a group of recipients for a proportion of whom the provision of credit appeared to be justified on neither of the grounds discussed above. The minimum maize acreage requirement of two acres eliminated a large proportion of Vihiga farmers from the scheme: only 61 per cent of the farms have a total acreage of two or more acres, and only 13 per cent grew two acres or more of maize in the 1970 rains (1, Tables 13, 34). Some farmers may have been able to increase their maize acreages and therefore qualify for inclusion, but for the vast majority the two acre minimum must have been either uneconomic or physically impossible. P. Mook pointed out that "The average self-declared farm size of loan recipients is nearly seven acres...." (32, p.5). Among the 22 farmers selected in the first year from outside the 500-farmer sample were one chief, two sub-chiefs, three AAs, and several teachers and traders. In the second year both the selection procedures and the outcome of the selection process were criticised by P. Mook. The sub-chiefs and the AA's were supposed to publicise the fact that loan applications would be received from anyone wishing to apply, and to make known the days on which loan applications would be accepted at the locational or divisional offices, but according to Mook few farmers knew of the year's programme or the opportunity to apply for loans, let alone the particular days on which applications could be made. Among those selected were several "farmers who clearly do not suffer from any financial constraint in the purchase of maize inputs, (and who are not) in our opinion,..... in most need of the intensive supervision extended to credit recipients" (19, p.1). The Mook's impression was that a number of sub-chiefs, and some AAs as well, exercised their discretion about who should be informed. Considerable screening also apparently took place at an informal level before applications were presented to the formal committees.

As would be expected from the great selectivity of the scheme as it was implemented a high proportion of the loan recipients had already adopted many of the hybrid maize recommendations.

"Of the 56 farmers who signed loan agreements and (were among the 600 initially surveyed):

- (i) .. 79 per cent had already adopted hybrid maize
 - (ii) .. 61 per cent grew hybrid maize in the 1970 Long Rains
 - (iii) .. 50 per cent were already using chemical fertilisers on hybrid maize
 - (iv) .. 18 per cent were already using D.D.T. on hybrid maize"
- (16, p.2)

Fifthly, in the first year of the scheme no attempt was made to recoup any part of the cost of the provision of credit, but in the second year this was amended to an interest charge of 12 per cent per annum (16, p.2). Possibly this reflected the conflict of views on subsidised credit noted above:

"The provision of loans ... must be recognised as necessarily containing a large element of Government subsidy. (Steps should be taken to ensure that it) does not amount to a waste of public funds" (16, p.2)

"Subsidisation of credit is not recommended ~~because it tends to~~ produce an enterprise that may not be able to stand on its own feet" (17, p.40 A donor report!)

The earlier discussion suggested that subsidisation of credit was a wrong strategy where annually repeated injections were envisaged, on the grounds that such a strategy was not replicable on a national level, but that there might be a place for it if a once-and-for-all injection could lift the producer permanently onto a sounder economic footing, having implemented the other part of the package. However, just as the question of whether the injection should be repeated or not was never thoroughly examined, neither was the issue of the subsidy element in the loan - ignoring for the moment the even greater subsidy involved in the intensive supervision. This issue is directly related to the concept of credit-worthiness, which, as one of the selection criteria, has taken on considerable significance. Ideally it should mean "worthy of receiving credit", that is, being rated a low risk of non-payment. In deciding who qualify there is obviously an inherent bias in favour of the already-successful, and against the potentially-successful producer if creditworthiness is the test. However,

the choice of the "non-progressive" and the low productivity producer as the target of the scheme does not necessarily imply that non-creditworthiness (i.e. the likelihood that the producer will default) should become the criterion; instead it requires the introduction of a procedure which will identify the potentially - creditworthy among the present "non-progressive" and low productivity producers. So again the critical issue is the producer's view of the profitability in use of the inputs and the husbandry skills provided by the package. However, if the credit is subsidised then there will be a distortion of the profitability of the crop and more will be encouraged to grow it than market cost/return relationships allow. As pointed out already, if the credit is a one-shot "funds for take-off" type which will not be repeated in subsequent years then the distortion will not be considered and those who are on the margin of profitability will presumably revert to traditional crops and practices in the subsequent season. But if the provision of subsidised credit is to be a permanent feature of the production system the distortion may become considerable, and the production of high-cost hybrid maize become a problem to be encountered in the future. It has also been pointed that the continuous provision of subsidised credit is a non-replicable strategy, and therefore inconsistent with the principles of SRDP.

A final comment is due on the failure to see credit as only one of a number of alternative ways of encouraging the adoption of a hybrid maize package. It would appear that the alternatives, such as different types of extension, demonstrations, farmer training, production grants, have not been considered, still less subjected to experimentation. A discussion of alternatives was initiated by Harmon, but appears not to have been taken seriously by anyone else responsible for the development of the Vihiga programme. The exclusive concentration on credit provision may explain the reluctance to amend the scheme in the light of the results of the performance in the first year, despite signs of apparent ineffectiveness of credit of the type provided. Of the 76 farmers whose applications to receive credit were approved, 63 used the credit - two refused the loan after signing, six received inputs but invoices were not submitted by the stockists for repayment, and for the remaining five the reason was not known. The repayment rate as of May 1972 was 72 per cent (31, p.1), a low figure despite the fact that the loan was interest free; in October 1971, after the harvest when the loan was to have been repaid, the repayment rate was only 26 per cent (15, p.6). To this may be linked the fact that the actual increase in yields attributable to the application of the package may not have been very large, though it is difficult to be conclusive in this respect. Yields of first year recipients ranged from 11 to 33 bags per acre, averaging 21 bags; yields achieved without credit by an admittedly non-representative group of "progressive" farmers

surveyed by P. Mook, the Area Evaluator, averaged 18 bags per acre using the two fertilisers recommended, and 16 bags using only one of them. It is significant that five of this group used local seed plus nitrogen, top-dressing and achieved an average of 19 bags per acre (32, p.5). Of course, it may be appropriate to argue that the poor improvement in yields which can be attributed to the credit package was a direct result of the selection criteria picking out producers who were already growing hybrid maize fairly well. However, that does not then permit the conclusion that had the "non-progressive" producers been selected their yields would have reached these levels. It is likely that producers already involved in hybrid maize found it profitable, and had no serious difficulty in finding the appropriate complementary inputs; it has yet to be established that this is true of the producers who are not involved in the credit scheme at the moment, or of the so-called "non-progressives". The lack of success of the maize credit scheme to date underlines the need to develop the experimental nature of the programme, and, if hybrid maize has still to be encouraged, to test other strategies for encouraging its adoption. The fact that there is some evidence that neighbours of farmers in the credit scheme have adopted the whole of the package without credit suggests that, apart from the obvious point that for them the constraint was not credit, there may be a role for simple demonstrations as a means of encouraging those who feel that hybrid maize is profitable to commence production. In addition it is also questionable whether the distribution of extension advice was the optimal one: the considerable extra burden which the extension staff has to bear in servicing the loan recipients, many of whom patently do not need their services, must have been at the expense of applying their skills elsewhere. It has been said that the Vihiga extension services were so under-utilised before that the other farmers are not losing anything, and the introduction of the credit scheme has mobilised this resource; however, the opportunity cost of this particular allocation of their time should be assessed not in relation to what they once did, but what they could now be doing instead.

A principal conclusion is that considerable lessons can be learned from the experience since the inception of the maize credit package. It is vitally important that the lack of success in terms of the objective of the project is not made a justification for writing off this experience, even if the project itself is discontinued. It is better to learn from experience than to discard the project and pick up another in which the same errors are made, once more to no avail. The following are suggested as topics for carefully considered reflection on the Vihiga experience:

- (1) No strategy can be blamed for wrong selection of the objective of a project - the profitability of maize production has to be examined, the appropriate level of production of maize for Vihiga selected, the group of producers considered to be the target identified, and the availability of complementary inputs, in particular labour, within that group verified.
- (2) Much of the experimental nature of SRDP stems from the willingness to consider a number of strategies, and combinations of strategies, rather than to depend on a single change agent. Though much of the foregoing discussion has centred on credit - since this was the chosen strategy - the possibility of using various strategies simultaneously within a particular area in a way designed to establish which are the most suitable for replication should not be overlooked. The use of a variety of measures necessitates careful experimental design in order to be able to ascribe results to particular strategies. In the project as it is currently implemented it is not possible to establish whether credit or the extension advice which is given to credit recipients is the more effective.
- (3) The choice of the provision of financial assistance should be seen to emerge from the identification of a short-run or long-run cash-flow problem, which in turn necessitates an examination of the present "internal" sources of funds for the purchase of inputs, and principal expenditure flows which might compete with agricultural uses. It may be necessary to reconsider lending money to enable producers to hire labour.
- (4) The need for loaned funds having been established and the potential recipients identified, the next consideration is the choice whether to create what might ultimately become a permanent facility through which credit or other types of loans would be offered, or provide one-shot "take-off" injections of finance. This would include a review of the most appropriate repayment schedules, in the light also of (3) above.
- (5) The final area of choice concerns the alternative ways of introducing the loaned funds into the production system, bearing in mind that if the ultimate requirement is a fairly permanent credit structure adequate effective security, not to mention administrative competence, is required. Should it be funnelled directly to the producers over whom, in the case of maize, there are no sanctions in the event of non-repayment, or should it be provided via the marketing or input supply commercial channels, over whom there may be a greater degree

of control? Even if credit extended to input stockists was not passed on to the producer the availability of supplies of inputs might well be improved. Indeed the improvement of commercial services complementary to agricultural production would have important consequences in that sector.

OTHER COMPONENTS OF THE AGRICULTURAL PRODUCTION PROGRAMME.

One of the serious problems with the Vihiga agricultural production programme is its emphasis on a single product, hybrid maize. It has certainly been the intention throughout that other products will be added, but in the third year of the programme, 1972/73, the only product that is being added to maize as an SRDP activity is tea. Other products under discussion or somewhere in the process of planning include cattle, vegetables, poultry and pigs, but none of these has yet reached the final planning stage. The failure to develop additional production programmes, and the limited range of alternatives presently under discussion are sources of considerable concern. In 1970 Harmon stressed the need for simple farm profitability estimates to enable the development of a broader programme. At that time it was understandable that these estimates did not exist, but now, two years later, there is less excuse for these figures still not being available. Given the crucial importance of farm profitability calculations to assist in the selection of additional products for the agricultural programme, it is disturbing to note that no attempt has been made to start collecting this information. Substantial quantities of survey data have been collected in the 600 farmer survey, but no parallel exercise has been undertaken to provide farm management information. It is recommended as a matter of urgency that attempts be made to start collecting simple farm management information, perhaps with the assistance of the Farm Management Unit in the Ministry of Agriculture, which is just starting a national recording system for similar purposes.

In addition to farm profitability estimates, there is a need for further discussion with agricultural scientists familiar with the Vihiga environment to see if there are any additional products that might be worth developing. The current discussion is confined to the products listed early in the planning of the Vihiga programme. There is a need to widen the range of alternative products under discussion. This should be done with the assistance of agricultural scientists and those involved in the collection of farm management information.

Among the products under discussion at present, none looks promising for more than a small group of farmers with above average entrepreneurial skills, and above average resources of other kinds. There are the farmers also eligible for the maize credit package. There is little indication that any of the production programmes currently under discussion will help the majority of Vihigans. Unless the majority is consciously planned for, it does not look as if SRDP will be significantly different from what has gone before in emphasising the small minority of well-endowed farms and leaving the majority alone.

There are some problems with the proposals for tea and dairy cattle, and with those for other products that are at earlier stages of planning. However, the main criticisms are those given above; many others are similar to those already spelled out for the maize credit package: for example, to encourage the development of tea through the provision of credit again ignores the labour problem. It is not intended to pursue any further evaluation of the other individual production projects in this paper.

EVALUATION OF THE INSTITUTIONAL ARRANGEMENTS
FOR MARKETING AND CREDIT

The following comments are directed at the institutional arrangements chosen to be the vehicle for the provision of credit to selected maize farmers. Earlier in the report it was pointed out that the information available on the institutional framework of the Vihiga economy is limited, and this is now discussed in relation to the marketing arrangements. The central theme of this section is that the maize credit package has not been grafted onto the existing market structure; instead it forms an over-lay largely independent of the local marketing system. For this reason it may be a less efficient system than one which uses existing marketing resources to the full.

OUTLINE OF THE INSTITUTIONAL ELEMENTS OF THE PACKAGE

The institutional arrangements chosen for the provision of credit to maize producers in Vihiga involve selected existing stockists of agricultural inputs as agents of the Government rather than as profit-maximising enterprises in their own right. This results from the nature of the credit instrument, or "Authority to Incur Expenditure", issued to successful loan applicants, which entitles them to specified quantities of hybrid maize seed, fertiliser, and insecticide up to maximum monetary value free of charge. On being presented with this document the stockist is expected to supply these inputs to the farmer. He then submits signed invoices for the inputs supplied to A.F.C. Kakamega for verification, and repayment is subsequently made through the **A.F.C. office** in Nairobi. The administrative timelag which results from this procedure means that the stockist is obliged to provide free credit to the producer (or to A.F.C., depending on how one looks at it) between supplying the inputs and receiving payment from the A.F.C. In the first year of the scheme, 1970/71, the producer was not required to pay interest on this credit, but in the second year a charge of one per cent per month was introduced. But although the credit is provided by the stockist until he is paid for the inputs - at which time the A.F.C. effectively makes a loan to the producer - none of this interest payment accrues to the stockist, even though it is charged for the entire period between the producer accepting the conditions of the scheme and receiving the authority to incur expenditure, and repaying to the A.F.C. It is little wonder that some stockists refused to honour the authority, and complained that the time taken to effect payment (apparently 30 to 60 days) tied up their limited capital for an excessively long period of time (15, p.6).

The selection process, and the means whereby the stockists obtained supplies do not appear to have been discussed at all. The incentive to encourage stockists to take part in the scheme is presumably the potentially higher level of sales of the inputs which they could realise, though this can^{only} be achieved through the carrying of a higher level of stocks; it is not clear whether these are obtained on cash or credit terms. If they were responsible for obtaining these additional stocks on cash terms then their availability of capital would be an important factor influencing both their willingness to participate and their degree of co-operation. Presumably proximity to the participants in the scheme was also an important consideration, rather than other characteristics of the stockists such as efficiency or size. It appears, however, that their co-operation involves a modification of their normal commercial behaviour: in the first year of the scheme the total value of the loan was calculated at standard input prices, but as there are apparently no list prices for fertiliser supplied in small lots up-country, there was substantial variation in the prices charged by different stockists. Although this may be a normal characteristic of the inputs market, it was considered to be a deficiency of the scheme since it meant that lower application rates resulted for those producers who were obliged to purchase inputs at higher prices than those at which the credit requirement had been calculated. (The fact that input price variation alters the economically-optimal package appears to have been overlooked). Therefore in the second year stockists were expected to supply inputs at specified prices, irrespective of cost differences and variation in profit rates among different types of fertiliser.

However, there appears to be room for improvement in the service provided by the stockists. Some appear to have little knowledge of the appropriate fertiliser application rates (15, p.9), and the apparently wide range of bag sizes and fertiliser analyses is probably an inefficient mix. Nevertheless, where co-operation is sought it is inappropriate to endeavour to make good these deficiencies by edict rather than through the creation of the necessary incentives. It is understandable that stockists were not happy about participation in a scheme which showed such disregard for their interests.

THE EXISTING MARKETING STRUCTURE.

In suggesting fuller participation by the existing marketing institutions, it is recognised that planners are handicapped by the limited amount of information which appears to be available on these institutions. There are apparently several different types of participants in the Vihiga marketing structure for agricultural inputs and outputs; (1) agents of the Maize and Produce Board; (2) shopkeepers who buy maize, store it, and sell it in Vihiga again; (3) input stockists; (4) coffee cooperatives.

(1) The agents of the Maize and Produce Board are supposed to step into the maize market to purchase at the Board buying price (the floor price) when there is a surplus of maize. However, it is frequently stated that Vihiga is a maize-deficit area, and that the role of the Board is therefore very limited in this respect. In 1971 no maize was delivered to the Board and according to the Board this is the normal position. If the area is a deficit area, the Maize and Produce Board might be expected to meet the deficit by selling maize in Vihiga once a ceiling price is reached. There is little evidence of the Maize and Produce Board's activities in this respect, although one would not normally expect them to use their buying agents for the sales.

(2) The shopkeepers who buy maize, store it, and sell it again perform two functions. They provide a ready cash market for the crop at harvest, when cash requirements are apparently high, and they store the maize crop until it is required for consumption, at which time it commands a premium reflecting the producer's desire for ready cash, the cost of storage, losses during storage, and the cost (including transport) of obtaining supplies from elsewhere when necessary. Apart from that there is little information on their functions. It is not clear whether all farmers sell at harvest time, whether those who sell buy back later, or how the flows go. Nor is it clear whether the price differential would be reduced by the provision of more storage, either at shops or on farms. Furthermore, it is not clear whether they would benefit or suffer from a substantial increase in maize output. These questions require investigation.

(3) As has been pointed out above the role of the input stockists is an important one but very little analytical work appears to have been carried out; indeed there is a paucity of information even of a descriptive kind - how many stockists are there, how big are they in terms of turnover, how many customers does each have, what are the capital requirements of their businesses, with which other activities in the agricultural or commercial sector are they integrated? Few of these questions can be answered, and therefore little can be said about the determinants of their performance. It would appear that since their function is to derive a living at least partially from the sale of agricultural inputs they are potentially in a position to both estimate the probable extent of the market for fertiliser, and identify those producers who are considered to be worthy of credit. Indeed they may already provide inputs on credit, but it is open to question whether they can adopt a more risky policy of identifying the potentially creditworthy, rather than those who are already successful, and therefore good risks.

(4) An existing marketing channel which provides some of the envisaged functions such as credit and input provision is the coffee co-operatives, which should be mentioned as an alternative form of institution which may have a role to play in the development of the maize package. There are four such co-operatives, concentrated, naturally, in the coffee producing part of the Division. At least one of them already provides hybrid maize inputs as an alternative to cash for coffee deliveries. However, in relation to the large indebtedness of members to the co-operatives and in turn the indebtedness of the co-operatives to the co-operative union, and the very low sales per member, the following comments were made:

"... it would appear the existing co-operatives are not financially capable and do not have satisfactory management to handle the business of making and collecting loans now or in the near future. The societies have a bad reputation of losing the members' money, something most undesirable for a society making loans or accepting deposits." (15, p.16).

Both their location and their own internal problems make them dubious channels for the maize project, but there are lessons to be learned from their experiences.

It would be extremely useful to have a more detailed knowledge of how the Vihiga agricultural marketing structure operates. To what extent is the provision of inputs an integral part of the crop marketing arrangements? Are inputs already financed by credit against the maize crop? The Division is said to be a deficit area: as we pointed out in Section II additional marketing information would establish whether this is so. Are additional supplies channelled into the area? At what prices? When and where from? How are fertilisers supplied to the area at present? And so on.

THE ENVISAGED MARKETING STRUCTURE.

The eventual enlargement of the scheme to include very many more farmers (600 in 1972/73 and 6,000 eventually) is intended to be accompanied by the development of new cooperative societies (15, p.12). This proposal implicitly rejects the present marketing structure for this purpose, without seriously considering the reasons for which it is inadequate. The only justification for new cooperatives seems to be the usual textbook argument which presumes the instantaneous and cost-less creation of an efficiently managed and versatile structure providing credit, inputs, savings bank functions, crop storage and marketing services - all the services 'necessary' for the up-take of the production scheme which the farmers are unable to provide themselves. No attempt has been made to cost this proposal. It is

interesting to note that the principal comments made about the inadequacies of the present market structure relate to its poor performance as an instrument for the provision of the inputs under the maize production scheme, but as has been pointed out there is no evidence that the functions the marketing system was required to perform in this respect were commercially oriented in the first place.

In the absence of any critical evaluation of the existing marketing system it is not possible to assess the merits of the proposed new cooperative structure. The functions which it is expected to perform are comprehensive (15, p.14), but there is no indication of the steps necessary for the creation of such a structure, the resources that are required, and the management organisation necessary for its efficient operation. The proposal appears not to have benefitted from the experience of the coffee societies in Vihiga, and others elsewhere attempting to organise marketing and provision of credit and inputs on a cooperative basis. There is an implicit assumption that the injection of funds, and a small amount of supervision, from the A.F.C., is sufficient to engender a strong spirit of cooperation, and an unlimited supply of managerial talent from among the farmers themselves. The words of caution in an earlier donor report appear to have gone unheeded:

"For some reason developing countries are always excited by the idea (of cooperatives). Theoretically, they appear to be such a simple and practical solution to their problems. It is enough to look at their record. Even in countries where qualified managers are available and where farmers are sophisticated, it has not been good. ... The Vihiga Program makes reference to 'organising farmers' to do various things, but current evidence is that they resist this. Their past experience with such organisations as the Coffee Societies provide ample reason for them to be wary. The F.A.O. Fertiliser Program has had no success in organising groups in the Division to purchase fertiliser and maize seed. The reason for this needs further study before attempting to create marketing or purchasing cooperatives". (17, pp.37,38).

It is not, of course, assumed on an a priori basis that cooperatives are the wrong form of marketing organisation. The principal point of the argument is that too little attention has been devoted to the mechanisms involved in the creation of a completely new organisation, and that too little consideration has been given to the possibility that the development of the existing marketing structure, possibly including existing co-operatives, might provide a cheaper and more efficient alternative to the creation of a new one.

EXPERIMENTATION IN MARKETING.

Although the approach adopted to problems of marketing inputs and outputs has displayed certain novel features, none can be attributed directly to a desire to experiment. Indeed, the novel features appear to emanate from a reluctance to devote effort to the analysis of the existing institutional arrangements, and a reluctance to design the package in such a way as to involve the intricate system of suppliers and marketing intermediaries which appear to exist in Vihiga. Far from attempting to employ appropriate incentives to encourage the desired conduct and performance of these institutions, the adopted approach has been to regard them either as an adjunct of the extension services, to behave in accordance with Government direction (or, more correctly, expectation), or as redundant institutions, to be replaced at the earliest convenience by totally new structures to perform their functions.

(1) Inputs: It has already been pointed out that stockists of inputs were obliged to carry the burden of part of the credit extended to the producer, due to the administrative organisation of loan financing. They were also expected to stock the appropriate inputs, and charge uniform prices. They were expected to bear the risk of financial loss if the increase in demand for inputs did not materialise. The "experimentation" may therefore be identified as the dependence on the goodwill, rather than the commercial judgement, of the stockists in question. The economics of supplying inputs is nowhere analysed.

(2) Outputs: The lack of attention devoted to any analysis of the maize marketing system in Vihiga is regrettable as this could have firstly, quantified flows and prices necessary for planning purposes; and secondly, identified functions and performance of different types of intermediaries, and the kinds of obstacles which they encounter. In turn this could have led to the package being directed to a more appropriate group of producers, and to incentives being built into it to guarantee the supply of supporting services in the marketing field. Analysis of this area could have provided clear evidence as to the overall desirability of a maize programme in the first instance.

An explicit form of experimentation would of course be involved in the replacement of the existing marketing framework with some new cooperative body performing its functions. The trouble with this proposal is that it lacks any evaluation of its likely success on the basis of available managerial resources and expected levels of member discipline. It is an experiment insufficiently checked as to likely success or failure in the first place.

The adoption of a more experimental approach with regard to the use of the existing market structure is recommended. This could have two functions: firstly to indicate the most appropriate type of production programme required in Vihiga, and secondly to act as a commercial vehicle for bringing innovative packages to the producer. It has already been pointed out that the understanding of the present structure of the market in Vihiga is very limited. However, if this were to be improved, and the various intermediaries in marketing and input provision employed as a source of the requisite information on product and input flows - instead of relying, as so often happens, on the producer to provide all the necessary information - then it might become possible to talk more meaningfully about the "maize market" in Vihiga, and to identify opportunities to be exploited (such as marked differences in supply and demand conditions between areas within Vihiga leading to different recommendations regarding increased and decreased production of maize), or bottlenecks to be removed. A lack of storage facilities may be an important issue, and one in which existing intermediaries have a vested interest; possibly there is scope for longer-term loans to them for the provision of storage, the organisation of which could incorporate a producer credit scheme, if such were to be necessary following the emergence of a more rational price profile during the year.

In the same way as the maize credit scheme encourages producers to respond to the incentive of credit by adopting hybrid maize, the improvement of the various services offered by the intermediaries could be effected by the introduction of a system of incentives operating in their part of the market. The provision of credit to input stockists through the fertiliser market or the hybrid seed market could be a welcome development; its effects could be various: extension of credit to producers, improvement in the stocks of inputs available to the farmer, or cost reductions and improved efficiency in the distribution of these requisites are some of the possibilities. Indeed there may even be scope for trying out subsidised inputs to test the effects of the existing overall marketing organisation for fertilisers and seeds. It is also likely that any measures which heighten the degree of competition in the local market between intermediaries are likely to benefit the producer; on the other hand it might be possible to devise measures to bring about a reduction in the number of participants in this part of the market, and the amalgamation of particular functions (such as maize buying and input provision) in order to foster the development of normal trade credit, and in turn a more prosperous commercial component of the area which would be attractive to financial institutions. It may also be possible to explore experimental ways of bringing these functions closer to those of the Maize and Produce Board, whose involvement in Vihiga appears to be of peripheral importance at the moment.

A particularly simple development might be the organisation of the provision of market information to the producers and to the intermediaries; that a system of sorts exists is undeniable: reports of considerable amounts of maize being sold green from the field, and much early mature maize being taken to markets at some distance by taxi in 1971 suggests that there is already a fair flow of market information. The question concerns its adequacy.

The idea of involving the marketing and the input-supplying intermediaries is not altogether new; the local maize speculators have already been proposed as a group which could become the channel for credit offered by the K.F.A. (18). However, as long as the objective remains to increase the output of maize, it may be necessary to seriously question the compatibility of the three functions they are envisaged as performing - maize speculation, supplying fertiliser, and supplying credit. A substantial increase in the output of maize, brought about through increased adoption of hybrid maize and increased utilisation of fertiliser bought on credit, could upset the balance struck at the moment between the level of output and the speculative function. If there were no floor in the market, both the post-harvest price and the end-of-season price would fall - the former more than the latter if there was a shortage of storage facilities - and the speculative earnings would remain the same. But since there is a floor in the market made effective by the Maize and Produce Board purchasing maize when the price reaches the intervention level, the outcome might be a very much reduced turnover for the speculators, and a narrower price range throughout the season as the Board would be required to perform the storage and resale function provided by the speculators. Therefore if the Maize and Produce Board were to become of more importance in the maize market in Vihiga, it would be at the expense of the present maize speculators - they would therefore oppose this trend by refusing to encourage a substantial increase in maize output. The alternative would be that they would be forced to keep the price above the floor by competing with the Board for supplies, but this could lead them into an overbought position, the end-of-season price would reflect this (due to the need to find other markets at that time) and a drop in price would lead to a diminished economic performance by the speculators.

A further sensible experiment would be to identify the principal local and more distant markets for agricultural produce, to collect price information on a range of crops, those already grown in Vihiga and those not, and ascertain the extent to which there is an untapped market for Vihiga produce at these prices. This in turn implies an ability to evaluate the profitability to both the producer and the merchant of a particular line. There may well be opportunities to rationalise the organisation of these markets, even providing existing intermediaries with incentives to extend their functions beyond their present range.

RECOMMENDATIONS

There are many recommendations implicit in this report; only the most important are listed here. As far as Vihiga is concerned it would appear that those involved in the planning process are either out of touch with the principles and objectives of S.R.D.P., or too willing to relinquish control over the design of a project, leaving it to the donor. The need for outside financial assistance may well be pressing, but there is a clear divergence of interest between the Kenya Government in S.R.D.P. and the normal objectives of donors. As has been shown in the main body of the evaluation report, the essence of S.R.D.P. is to discover effective development strategies of wide application and minimal dependence on external resources through a process of experimentation. Donors, on the other hand, usually wish a project to be a successful development in its own right. A successful experiment may not be a successful development: the criteria of success are quite different. The former is judged by the amount which is learned about a given situation: the resources involved in it, the way in which it works, and, above all, the ways in which it can be changed in a given direction. The latter is not concerned with this knowledge per se but with the attainment of immediate goals such as increased output or incomes. It is vitally important that this distinction is borne in mind when considering the recommendations which follow.

1. It is recommended that the Vihiga experimental maize credit package be substantially modified in the light of the experience of the last two seasons before it is extended to more producers.

It is evident from the preceding sections of this report that at the moment the experimental design of the maize credit package leaves a lot to be desired; nevertheless the experience of the last two seasons can be made to yield much of value for the future. The components of a well-organised experiment should now be much clearer:

- (1) an understanding of the principal inter-relationships affecting the selected area - not simply the collection of a voluminous quantity of data, but an assessment of the resource base sufficient to suggest possible objectives and strategies for specific projects;
- (2) careful and precise specification of the ultimate and immediate objectives appropriate to the needs of the area;
- (3) careful and precise specification of the most appropriate strategy or strategies that can be expected to lead to the attainment of these objectives;

- (4) the formulation of the strategies as consistent experimental projects from which lessons can be learned;
- (5) a monitoring procedure to check on the experiment to:
 - (a) check during implementation that the understanding of the resource base, production and marketing processes is correct;
 - (b) check that the perception of the needs of the area is correct;
 - (c) check that the strategy is not modified in the course of implementation to the extent that it loses value as an experiment or becomes divorced from its original objectives;
 - (d) identify and effect the necessary "running repairs" to the project, in the light of the information collected under (a), (b), and (c).
- (6) collect and analyse the results of the experiment, and draw conclusions regarding the success or failure of the project in terms of the S.R.D.P. principles and objectives. (See Recommendation 5 below).

One of the most obvious practical problems is the extent to which the donor can be expected to co-operate in the modification of the project now that it has become apparent that the project is deficient in terms of the S.R.D.P. principles and objectives. It would be understandable if a donor resisted modification on the grounds that the project is already successful according to its own criteria (which might include criteria such as numbers of farmers receiving credit) and that a proposed change is likely to lead to a deterioration in performance according to its own criteria. If it were not possible to count on the willingness of the donor to co-operate in extensive revision of the project in line with the principles and objectives of S.R.D.P., then its future as an integral part of S.R.D.P. would be in jeopardy. It is not anticipated that this difficulty will arise with regard to the maize credit package, though detailed discussion will be required as to the specific manner in which the package is brought in line with S.R.D.P. aims. Specific recommendations need to emerge from deliberations involving the Government and the donor; here it is appropriate to elaborate upon the ways in which the project could be modified to make it more consistent with the objectives and principles of S.R.D.P.

A. The Objectives:

The maize package requires a more specific production objective, to replace the ill-defined "self-sufficiency in maize". For example the original spirit of the objective of the maize package was to increase the incomes of the existing low-income producers through improved maize husbandry and increased maize production. If the attempt is made to recapture this spirit and develop a specific objective for the project, the relationships between farm and non-farm income, between maize and other enterprises, and between production and marketing of the crop will all need to be considered. All of these affect resource availability and resource allocation decision-making. Resource use, production, and sale of output must all be facets of the objective.

B. The Strategy:

It follows from the above comments on the characteristics required in the objective that the chosen strategy (or strategies) should relate to the perceptions of resource bottlenecks among those producers to whom the project is directed. Doubt has been cast on the general validity of the "labour surplus" interpretation of the resource endowment of Vihiga; consequently a strategy of providing assistance for the purchase of material inputs may be frustrated by the lack of complementary labour. In the absence of more precise information on the nature of the bottlenecks it may be fruitful to experiment with various strategies representing different interpretations of producer resource constraints.

Either the strategy should remain as it is in broad outline, but attempts be made to identify those producers for whom credit and extension supervision are bottlenecks to hybrid maize production, i.e. producers for whom hybrid maize would be profitable and who have surplus labour resources coupled with a cash-flow problem and a lack of hybrid maize knowledge. At this moment it is not possible to tell how big this group might be (it might be quite small), but further analysis of the 600-farmer survey may assist here. If solutions were to be found to such problems as lack of security and ineffective distribution of material inputs, solutions which still satisfied the requirements of replicability on a larger scale, this would constitute an important breakthrough in the provision of producer credit.

1.19 Part of the reason for this principle not being widely understood is that the foregoing principle of experimentation is not well understood. A true experiment must pay attention to the replicability of its results; otherwise costly experimentation will be a never-ending exercise, failing to provide successful strategies. Therefore the introduction of non-replicable strategies, such as continuous intensive extension supervision, or annual interest-free credit, is not consistent with the principle of experimentation. In the absence of comparison of different strategies - which is the essence of experimentation - a non-replicable course of using SRDP funds to finance on-going development has often been adopted, and the "special" nature of SRDP has been permitted to disappear.

The Principle of Using Existing Resources

1.20 Using existing resources involves employing additional resources to meet only the extra experimental needs, scaled down progressively during subsequent replications to the level of normally available on-going resources. Additional resources include trial and error expenses, additional supportive staff and expertise, extra vehicles, equipment, and supplies to sustain the experimental phase of SRDP. Blue print and prototype development are usually very expensive undertakings and cannot be managed entirely out of normally available resources. It should be stressed that these additional resources are needed in addition to, not instead of normal on-going resources. Otherwise, the ceiling for incurring experimental expenditure is limited only by the availability of those additional resources.

1.21 The only justification for additional resources in experimentation however is to facilitate the development of more effective, productive and profitable strategies for reproduction elsewhere. Therefore, these experimental costs must be progressively scaled down to fit normally available resources during subsequent replications. Thus, if SRDP resources are being used to hasten on-going projects rather than to develop replicable strategies, then this may be an inappropriate use since the projects may not be replicable on a wider scale. It therefore serves little useful purpose to relabel anything developmental in an area as SRDP unless it forms a clearly specified (not merely self-evident) integral part of an SRDP experiment. For instance, renaming a water project "SRDP" merely because it is an existing project is misleading unless it is also an integral part of an experiment such as testing more effective ways. Similarly, a self-help dip construction project may be taken over by SRDP only if it is part of an experiment to test more effective strategies for upgrading cattle, but not if it is a normal on-going development.

1.22 External experts have a special role to play in filling gaps in existing resources. Local staff and people may have useful development ideas, but lack knowledge and skills of experimental planning, design and execution to turn their ideas into viable experiments. Due to the rapid turn-over of external experts problems can emerge: the proposals of one set of experts may often be followed by conflicting proposals from the succeeding set. Furthermore it is vital to ensure that such experts are conversant with the principles and objectives of SRDP, and that their advice reflects this; otherwise they may tend to concentrate on developing the area for which they are responsible.

1.23 Vihiga is a good example of an instance where the involvement of foreign experts both materially influenced the design of the project and created certain conflicts with its experimental content. Some areas - Kwale, Migori, and Kapenguria - currently have little access to experts; others - Tetu, Mbere, and Vihiga - do, but the teams are not always sufficiently interdisciplinary. Frequently there is no time for counterpart training, and, when there is, there are no counterparts to be trained. As a result, the experts tend to take over the management of the programme, rather than contributing only in their specialised field.

The Principle of Research and Evaluation

1.24 Research in this context involves gathering and interpreting information relevant to pinpointing experimental objectives and strategies, while evaluation means gathering and interpreting relevant information about how well the strategies have worked to attain their objectives in order to derive more suitable strategies for future use. Experimental design incorporates research and evaluation. Since experimentation is not well understood in SRDP, confusion exists about the functions of research and evaluation. These may be clearly identified if an experiment is first broken down into three component phases:

1.25 The Project Planning Phase, ^{specifies} ~~specifies~~ objectives and appropriate strategies ~~also specified~~. A likely objective might be increase agricultural output. But from what present state to what future state? To answer this question "baseline" information is required to show and if possible measure the extent to which the objective has already been attained and the further extent which could be expected to be reached through existing strategies. If increased adoption of a new technique is the target, the current level of adoption has to be known, and the probable future level of adoption in the absence of the intended strategy. Establishing this present state or baseline of goal-attainment permits an estimation of the potential remaining for attainment, and an assessment, through subsequent evaluation, of the degree of progress as a result of using the intended strategy.

1.26 But strategy selection depends on an interpretation of which factors are at present holding back more full attainment of the objective in question. For example, why is it that the new technique has not been adopted to the extent which appears to be possible? What obstacles are there to its adoption? In other words the bottlenecks hindering the uptake of the new technique have to be identified; once the bottlenecks have been identified it is then possible to select strategies with the express aim of eliminating the bottlenecks. Consequently, the information which is gathered must be of a kind which will assist in the identification of likely bottlenecks.

1.27 Gathering these kinds of information can range from being very simple to inordinately complex. Many people, however, presume research must be complex, probably because of familiarity with the term "survey research". Surveys are indeed often very complex, involving large-scale sampling, structured questionnaires, computer processing and voluminous statistics, all of which demand high expertise which is rarely readily available. They also take time, delaying projects so much that many are inclined to view them as unnecessary luxuries. All too frequently, they become wasteful luxuries either because they are inexpertly or unreliably conducted, or because too much irrelevant information is gathered, or because interpretive skills are lacking. Frequently, information is gathered and never used because of undue haste to get on with the project. The maize credit package, for instance was implemented before already-gathered survey information could be analysed. Nevertheless, many projects need survey information. Some, like the extension pilot project, profit from them, basing project planning and design upon the survey results.

1.28 More often than not only simple fact finding research is required, but even so elementary research can be overlooked, with disastrous results. A critical assumption for the success of the Mbere cotton blocks project, that local people would be willing to make land available for the blocks, was not tested, and contributed to the failure of the project. It is not always easy to know when simple research suffices or when a survey is indicated. This is an area where expert advice and guidance is probably needed.

1.29 The Strategy Testing Phase is addressed to the trial implementation of the selected strategies, to check that they can attain the designated objectives. The research component of implementation is monitoring, continuously watching progress to ensure that the project remains on target. It involves issues of timing, phasing and pacing, and of introducing modifications to account for unforeseen developments.

At present the function of monitoring is largely performed by the reporting system.

1.30 The Effects Evaluation Phase in which it is determined how well the selected strategies are overcoming bottlenecks and attaining designated objectives. While the research and evaluation embodied in the preceding two phases are no less integral parts of the experiment, evaluation of the outcome of the strategies being tested is essential if the principle of experimentation is to be respected. If there is no objective assessment of results it cannot honestly be said that there has been an experiment. For instance, if the 4K Club project's objective is to influence ^{less} progressive parents to adopt agricultural innovations by following the example of their children (the strategy), then sooner or later information has to be gathered to see how far the strategy has worked.

1.31 One perennial problem is to find sufficiently unbiased evaluators with an expert grasp of the guiding principles and objectives so that their pronouncements regarding the validity and effectiveness of strategies being used are credible and meet with general acceptance.

Conclusion

1.32 The "rules of the game"; the SRDP principles, should be understood by all participants, not only a few officials at the top. The evaluation has come to the conclusion that at present this not so, hence the above elaboration on the principles of SRDP. These need to be carefully and clearly explained from the top down the line to the lowliest JAA, and to the rural people themselves. Gaining a knowledge of the rules of the game is the first step to generating widespread involvement in SRDP, if not as active participants then at least as interested spectators hoping for a successful outcome.

THE OBJECTIVES OF SRDP

1.33 An objective is a goal which strategies are designed to reach. In view of the idealism and vagueness which may be observed in the stated objectives of the SRDP projects at present, this simplicity must be deceptive. There appear to be two reasons for the difficulties which are being experienced in expressing clear-cut objectives: firstly, there are really two sets of objectives each of different levels of generality, and secondly, the official SRDP objectives are confusing.

1.34 Of the two sets of objectives one is addressed to individual projects, the other to the programme as a whole. This distinction is held to be important. A project objective is the direct outcome of experimentation with strategies designed to attain them more effectively. A programme objective is the indirect outcome of the prior attainment of

A FUNCTIONAL MODEL OF THE SPECIAL RURAL DEVELOPMENT PROGRAMME

THE PRINCIPLES	THE OBJECTIVES		THE STRATEGIES	
	ULTIMATE PROGRAMME OBJECTIVES	IMMEDIATE PROJECT OBJECTIVES	PROJECT BOTTLENECKS	PROGRAMME BOTTLENECKS
<p>"SPECIAL" RURAL DEVELOPMENT THROUGH:</p> <p>1. <u>EXPERIMENTATION</u> Trying out alternative strategies for achieving desired objectives to see if they work (feasibility) and how well they work (extent of pay-off) in pilot areas.</p> <p>2. <u>REPLICABILITY</u> Developing blue prints and prototypes of successfully tested strategies for wider-scale reproduction elsewhere.</p> <p>3. <u>USING EXISTING RESOURCES</u> Utilizing additional resources only to meet extra experimental needs, scaled down progressively to available on-going resources during subsequent replications.</p> <p>4. <u>RESEARCH & EVALUATION</u> Information-gathering research before; progress monitoring during; and effects evaluation after project and programme implementation.</p>	<p>RAISING QUALITY OF RURAL LIFE THROUGH ACHIEVING:</p> <p>1. <u>INCOME GENERATION</u> Raising incomes from sources within the rural areas in: a. Agriculture b. Commerce c. Industry d. Wage Employment</p> <p>2. <u>WELFARE GENERATION</u> Raising levels of: a. Physical Well-being b. Mental Well-being c. Social Well-being</p> <p>3. <u>SELF-GENERATING DEVELOPMENT</u> Increasing local staff and people capacities for: a. Self-determinism b. Self-reliance c. On-going Growth and Development</p>	<p>FILLING PRODUCTIVITY & EQUITY GAPS THROUGH ACHIEVING:</p> <p>1. <u>INCREASING OUTPUT</u> Raising levels of surplus marketable or re-investment output in: a. Agricultural Enterprises b. Commercial Enterprises c. Industrial Enterprises</p> <p>2. <u>REDUCING UNEMPLOYMENT</u> Increasing wage employment in: a. Public Works Projects b. Private Enterprises</p> <p>3. <u>IMPROVING PUBLIC SERVICES</u> Increasing impact of the: a. Extension Services b. Training Services c. Social Services d. Health Services e. Education Services</p> <p>4. <u>INCREASING DECENTRALIZATION</u> Increasing field staff and local people participation in: a. Decision-making b. Project Development</p>	<p>SEARCHING FOR AREA-BASED STRATEGIES FOR OVERCOMING:</p> <p>1. <u>LACK OF KNOWLEDGE AND SKILLS</u> By testing alternatives of providing: a. Mass and Interpersonal Extension b. Formal and Informal Training c. Formal and Informal Education</p> <p>2. <u>LACK OF FINANCIAL, MATERIAL INPUTS</u> By testing alternatives of providing: a. Loans, Credit, Bursaries, Grants b. Supplies, Tools and Equipment</p> <p>3. <u>LACK OF EMPLOYMENT OPPORTUNITIES</u> By testing alternatives of providing: a. Labour-intensive Work Schemes b. Under or Unemployment Relief Work</p> <p>4. <u>INADEQUATE MARKET DEVELOPMENT</u> By testing alternatives of providing: a. Internal Markets, Holding Grounds b. External Markets, Policy Adjustment</p> <p>5. <u>INFRASTRUCTURAL UNDERDEVELOPMENT</u> By testing alternatives of providing: a. Roads, Transportation, Water, Dips b. Electrification, Communications c. Education, Health, Social Amenities e. Land Adjudication, Re-settlement</p> <p>6. <u>LACK OF PEOPLE-INVOLVEMENT</u> By testing alternatives of providing: a. Information-gathering participation b. Project, Strategy Planning, Design</p>	<p>SEARCHING FOR ADMINISTRATIVE STRATEGIES FOR OVERCOMING:</p> <p>1. <u>LACK OF ORGANISATION</u> By testing alternatives of providing: a. Area, Central, Donor Coordination b. Project Integration into Programme c. Staff Assignment, Deployment d. Local Development Committees e. General Administration</p> <p>2. <u>LACK OF CONTROL</u> By testing alternatives of providing: a. Monitoring, Reporting Systems b. Exchange of Ideas, Information</p> <p>3. <u>LACK OF PLANNING RESOURCES</u> By testing alternatives of providing: a. Problem-solving Skills, Expertise b. Training and Training Skills c. Interpretation of Principles, Goals</p> <p>4. <u>LACK OF IMPLEMENTATION RESOURCES</u> By testing alternatives of providing: a. Extra Experimental Funds, Staff, Equipment and Special Training b. A Stable Multidisciplinary team of Experts and Technicians</p>

several project objectives, the latter being the preconditions for the former. For example, increased agricultural incomes is stated to be a programme objective because it may be "once removed" from the attainment of a project objective, such as increasing output. While increased output is a necessary step towards higher incomes, a second project may be required to ensure that the increased output becomes increased incomes. Increased output of a cash crop could lead to a reduction in incomes, due to a consequential decline in the market price of the crop. To prevent this, a second project with the objective of maintaining or raising the market price is required. Hence the income-increasing programme constitutes two projects, neither of which is sufficient of itself to produce the desired outcome. The objective of an output-raising project may be mis-specified if it is claimed to be income-raising and yet the necessary complementary parts of the programme to ensure that increased output becomes increased income are absent.

1.35 Bearing this distinction in mind, an examination of the official SRDP objectives reveals that they are somewhat confused. At the moment the SRDP objective are divided into "primary" and "ultimate", corresponding closely to the distinction between project and programme objectives. Since the word "primary" implies that others are secondary, it is suggested that a more useful term is "immediate", which relates more closely to the project objective. However, although there is agreement as to the names of the boxes, there is disagreement as to their content. SRDP objectives as currently formulated are:

Ultimate Objectives of SRDP:

- Increased rural production and productivity;
- Increased rural incomes, hence higher standards of living;
- Increased rural employment opportunities and better rural life.

Immediate ("primary") Project Objectives of SRDP:

- To identify and concentrate on critical development gaps and bottlenecks;
- To establish procedure and techniques for **self-generating** rural development which can be repeated elsewhere in the **country**;
- To improve the development and training capacity of government staff;
- To generate active participation in the planning and execution of SRDP.

These appear to be inadequate for the following reasons:

1. Some objectives appear to be in the wrong categories;
2. Some important objectives are not mentioned at all;
3. The immediate objectives are too vague and general for practical purposes;
4. Some immediate objectives are actually long-term objectives.

1.36 In the following discussion an attempt is made to reclassify and clarify the SRDP objectives. It is summarised in the "Functional Model of the SRDP" on page 11 and reference should be made to this during the course of the discussion.

Ultimate Programme Objectives

1.37 Present SRDP ultimate objectives tend to cause confusion because some are misclassified, and because the list is incomplete.

- (a) it is confusing to relate increased incomes to higher standards of living, and increased employment opportunities to better rural life, ignoring the contribution of higher incomes to better rural life, and increased employment to higher standards of living.
- (b) increased incomes result from increased production and employment, and is therefore an ultimate objective, while the others are immediate objectives.
- (c) not specifically mentioned, though probably implied in "better rural life" is an ultimate objective addressed to increasing non-economic welfare.
- (d) one of the immediate objectives - self-generating development - should be among the ultimate objectives.

1.38 To get round these problems, a general and overall ultimate objective has been introduced - Raising the Quality of Rural Life. This permits the combination of higher standards of living and better rural life, and in turn is sub-divided into three ultimate objectives. Firstly, income generation, which has a sense of on-going dynamism; the main sources are self-employment and wage employment in the agricultural, commercial, and industrial sectors of the economy, and wage employment in public works. Secondly, welfare generation, adds the need to improve physical, mental, and social health and well-being of rural folk to the need for higher incomes. Thirdly, self-generating development, indicating that instead of providing poor relief and free welfare services (which may in themselves have a role to play as strategies), stresses the development of a capacity for self-determinism, self-reliance, and self-directed

promotion of growth and development.

1.39 In short, improvement of the quality of rural life involves achieving income generation, welfare generation, and self-generating development. Each of these is just as important as the other, and, accordingly, they should be given equal attention in planning.

Immediate Project Objectives

1.40 Experimentation without immediate objectives is pointless; it makes little sense to test a strategy intended to achieve an objective more effectively when that objective is either not specified, or stated in such vague terms as to remain unspecified for all practical purposes. Yet, as far as the present immediate project objectives of SRDP are concerned (see above), this appears to be the case.

1.41 The main problem is that these objectives are less concrete than the ultimate objectives. It is easier to know what is meant by increasing incomes than what is meant by "development gaps," "self-generating development," or "active participation." Yet it is through achievement of these rather general immediate objectives that it is hoped to meet the ultimate ones. They need, therefore, to be reformulated more clearly and simply.

1.42 First, the notion of development gaps and bottlenecks appears to apply to all possible project objectives, since they are all intended to fill some "gaps" in rural development by overcoming bottlenecks currently preventing those gaps from being filled. Productivity, for instance, may be deemed to be too low in a given area, that is a gap exists between the existing productivity and the potential productivity of that area. Similarly, an equity gap may exist, meaning that the benefits of rural development are presently not being spread to as many rural people as possible; they need to be equitably distributed. Thus, filling productivity and equity gaps is the overall immediate objective of projects.

1.43 Second, none of the present SRDP immediate objectives is specifically addressed to increasing output in agriculture, commerce and industry. This objective was included under ultimate objectives. Yet the bulk of the effort in the SRDP areas has been towards increasing output, especially in the agricultural sector. This emphasis is because increasing output is seen as a major way of ultimately increasing incomes. Therefore, increasing output is considered as an immediate project objective, which serves also to increase self-employment.

1.44 Third, increasing employment opportunities was also included under ultimate objectives. But this is a more immediate project objective since it too leads ultimately to increasing incomes. The term "reduced unemployment" is used, as it tends to focus attention squarely upon the problem rather than "opportunities" which may be created only to lie vacant. Note, however, that reduced unemployment through wage employment either in public works or as a function of increased output in private enterprise is involved.

1.45 Fourth, no mention is made of improved public services perhaps because welfare generation was not specifically mentioned. Nevertheless, increasing the effectiveness and impact of such services to the public as extension, health education, community development and social services also increases the likelihood of achieving all three programme objectives, especially the generation of physical, mental and social welfare.

1.46 Fifth, the present immediate SRDP objective of generating active participation in planning and executing SRDP appears to be addressed more to seeking strategies for increased decentralization of rural development decision-making. The objective is to increasingly shift decision-making responsibility from central government to both area-level staff and rural people through their leaders and local organizations. Increasing decentralization is a major way of producing self-generating rural development.

1.47 Finally, the present SRDP immediate objective of "improving the development and training capacity of government staff" is more addressed to administrative strategies for overcoming bottlenecks, and is therefore included under programme strategies.

1.48 The main ways of achieving the overall project objective of filling productivity and equity gaps and, hence, of achieving the ultimate programme objectives are through the achievement of increased productivity, reduced unemployment, improved public services and increased decentralization. Note again that all four immediate objectives are of equal relevance to planning.

Conclusion

1.49 The classification system outlined above and summarised in the chart should ensure that each development project has a clearly defined focus, and is therefore provided with the necessary measure by which its pay-off might be assessed.

POSSIBLE STRATEGIES BY PROJECT OBJECTIVES AND PROJECT BOTTLENECKS

PROJECT OBJECTIVES	PROJECT BOTTLENECKS					
	LACK OF KNOWLEDGE AND SKILLS	LACK OF FINANCIAL AND MATERIAL INPUTS	INADEQUATE MARKET DEVELOPMENT	INFRASTRUCTURAL UNDERDEVELOPMENT	PEOPLE INVOLVEMENT	LACK OF EMPLOYMENT OPPORTUNITIES
I INCREASED OUTPUT IN AGRICULTURE, COMMERCE AND INDUSTRY	<ol style="list-style-type: none"> 1. Intensive Extension Efforts 2. FTC and 4-K Club Training 3. Demonstrations and Displays 4. Farm management and Planning 5. Mass Media and Publicity 6. Mass Media Farm Forums 7. School Radio, TV and Movies 8. Apprenticeship, On-job Training 9. Handbooks, Handouts, Manuals 10. RIDC, Polytechnics, PFP 11. Agri-Service Station Training 	<ol style="list-style-type: none"> 1. Input loans and credit 2. FTC Farmer Bursaries 3. Premises, equipment and tools, capital grants 	<ol style="list-style-type: none"> 1. Provide Market Information 2. Price adjustments 3. Market Structure Policy 4. Holding Grounds 5. Womens Marketing Groups 	<ol style="list-style-type: none"> 1. Access and Feeder Roads 2. Irrigation, Livestock Water, Cattle Dips 3. Electricity and Communications 4. Land Adjudication 5. Agri-service Stations 	<ol style="list-style-type: none"> 1. Research and Evaluation 2. Master Farmer Demonstrations 	<ol style="list-style-type: none"> 1. Regular, Seasonal or Part-time Wage Employment
II REDUCED UNEMPLOYMENT IN PUBLIC WORKS AND PRIVATE ENTERPRISES	<ol style="list-style-type: none"> 1. Trade Training, Polytechnics, RIDC 2. Labor for Increasing Output 	<ol style="list-style-type: none"> 1. Loans to hire labour 	<ol style="list-style-type: none"> 1. Market Middlemen and Information Brokers 	<ol style="list-style-type: none"> 1. Labour-intensive Construction methods 2. Block system of Farming 	<ol style="list-style-type: none"> 1. Wage employment for under- or unemployed 	<ol style="list-style-type: none"> 1. 4-K clubs for school-leavers
III IMPROVED PUBLIC SERVICES IN EXTENSION, HEALTH AND SOCIAL WELFARE	<ol style="list-style-type: none"> 1. Staff Training in Technical and Communication Know-how 2. Training Manuals, Teaching Aids 3. Curriculum Development 4. Client Selection, Classification 5. Follow-up procedures 6. Family Planning, Child Care 7. Public Health, Nutrition 8. Functional Literacy Classes 	<ol style="list-style-type: none"> 1. Revolving Funds and Credit Unions 2. AFC, IDA, FAO, IODC, Commercial Credit 	<ol style="list-style-type: none"> 1. Market Research 2. Localisation of Sales Points 3. Commodity Transportation 4. Repackaging and Relabelling of Inputs 5. Amalgamation of Cooperatives 	<ol style="list-style-type: none"> 1. FTC's, RIDC's, Polytechnics 2. Nurseries and other Schools 3. Clinics and Health Centers 4. Social Sports Venues 5. Clean Water Supplies 6. Agri-Service Stations 	<ol style="list-style-type: none"> 1. Participation in the Management of Services. 	<ol style="list-style-type: none"> 1. Record of Unemployed Labour force
IV INCREASED DECENTRALISATION TO AREA STAFF AND AREA PEOPLE	<ol style="list-style-type: none"> 1. Training in SRDP Principles and Objectives 2. Master Farmers as Trainers 	<ol style="list-style-type: none"> 1. Processing of Applications 2. Credit Union Management 3. Repayments collection 	<ol style="list-style-type: none"> 1. Commodity Trading Rights 	<ol style="list-style-type: none"> 1. Adjudication Committees 2. Self-help Construction and maintenance 	<ol style="list-style-type: none"> 1. Integration into Project planning 2. Self-help Systems 3. Project Strategy Selection 	<ol style="list-style-type: none"> 1. Consultative Committee's on Unemployment

HYBRID MAIZE PROJECT CROSS-TABULATION PROJECT STRATEGY CATEGORIES

	PROVISION OF KNOWLEDGE AND SKILLS	PROVISION OF FINANCIAL AND MATERIAL INPUTS	MARKET DEVELOPMENT	INFRASTRUCTURAL DEVELOPMENT	PEOPLE INVOLVEMENT	UNEMPLOYMENT RELIEF
INCREASED OUTPUT	<ol style="list-style-type: none"> 1. FTC Training of Farmers 2. On-the-job Training in Field Follow-up 3. Demonstration Plots 	<ol style="list-style-type: none"> 1. Input Loans to Farmers 2. FTC Farmer Bursaries 3. Input Loans to Stockists 	<ol style="list-style-type: none"> 1. Localized buying points 	<ol style="list-style-type: none"> 1. Land Adjudication 	<ol style="list-style-type: none"> 1. Research and Evaluation 	<ol style="list-style-type: none"> 1. Seasonal Labour
REDUCED UNEMPLOYMENT	<ol style="list-style-type: none"> 1. Block Systems of Farming 	<ol style="list-style-type: none"> 1. Loans to Hire Labourers 	<ol style="list-style-type: none"> 1. Inter-market Information Brokers and Middlemen 	<ol style="list-style-type: none"> 1. Labour-intensive Construction of FTC Extensions 	<ol style="list-style-type: none"> 1. Wage Employment 	<ol style="list-style-type: none"> 1. 4K Club Hybrid Maize Scheme for School Leavers
IMPROVED PUBLIC SERVICES	<ol style="list-style-type: none"> 1. FTC and Field Staff Training in Community Extension Techniques 2. Curriculum Development 3. Client Classification and Selection Systems 4. Follow-up Procedures 	<ol style="list-style-type: none"> 1. Farmers' Revolving Loan Fund 2. Commercial Bank Loans to Input Stockists 	<ol style="list-style-type: none"> 1. Marketing Research Services 2. Input Package Size and Labeling Testing 3. Local Availability of Inputs 	<ol style="list-style-type: none"> 1. FTC Building Extensions 	<ol style="list-style-type: none"> 1. Revolving Fund Management 	<ol style="list-style-type: none"> 1. Records of Unemployed Labour Force
INCREASED DECENTRALIZATION	<ol style="list-style-type: none"> 1. Training in SRDP Principles and Objectives 	<ol style="list-style-type: none"> 1. Revolving Fund Management 2. Repayments Collection 	<ol style="list-style-type: none"> 1. Maize Trading Rights 	<ol style="list-style-type: none"> 1. Adjudication Committees 	<ol style="list-style-type: none"> 1. Project Strategy Selection and Rationification 2. Self-help Cultivation 	<ol style="list-style-type: none"> 1. Consultative Committees on Employment Opportunities in Hybrid Maize Cultivation

STRATEGIES TO OVERCOME BOTTLENECKS

1.50 The foregoing objectives are generally already attained to some extent by existing rural activities, and the task of development is to achieve the objective to a greater extent. The existence of some bottleneck hindering the attainment of the objective to a greater extent is therefore implied, and the task of SRDP is to experiment with new, different, or improved strategies (or combinations of strategies) designed to overcome bottlenecks. Unlike principles and objectives, which are limited in number, strategies for overcoming bottlenecks are very numerous, and, in the long run allowing for technological developments at present unforeseen, probably without number. Therefore it is easier to provide a listing of potential bottlenecks than it is to provide a listing of possible strategies for overcoming the bottlenecks. The value of such a list is that it systematises the search for viable strategies to overcome the bottlenecks, and at the same time ensures that a comprehensive view is taken of the likely problems to be encountered by development projects.

Two main types of bottlenecks are listed:

Project Bottlenecks -- area based constraints on the achievement of objectives;

Programme Bottlenecks - administrative constraints on the achievement of ultimate programme objectives.

Project Bottlenecks

1.51 Project bottlenecks are constraints likely to be preventing immediate objectives from being achieved to a greater extent. For instance, what is preventing agricultural output from being increased? Is it because people do not know about more productive seed varieties or husbandry techniques? Do they lack resources to acquire necessary supplies and inputs? Are there no markets to absorb surplus output?

1.52 If there were a list of the main bottleneck areas which might in one way or another be acting as a constraint on goal achievement, planners could check each one in order to find those which are critical. Only then does it become possible to design strategies specifically addressed to overcoming the critical bottlenecks. An experimental project to test the feasibility and extent of pay-off of these specifically designed strategies can then be carried out. To this end, therefore, the following list of potential bottlenecks relevant to the SRDP areas is presented.

- (1) Lack of knowledge and skills of agricultural, commercial and industrial techniques and technologies, suggesting strategies associated with formal and informal education, training and extension of all kinds, and further technical research.

- (2) Lack of financial and material inputs to exploit the unexploited potential, suggesting strategies associated with loans, credit, bursaries, capital grants, input supplies and equipment, aimed at producers and suppliers.
- (3) Inadequate Market Development to absorb surplus output, suggesting strategies associated with generating internal consumer markets and adjusting price and market structure policies to create external markets.
- (4) Underdeveloped infrastructure suggesting strategies associated with roads, transportation, water schemes, dips, electricity, communications, land adjudication and education, health and welfare amenities.
- (5) Lack of people-involvement in planning, designing and executing development projects, suggesting strategies associated with organizing and integrating people and area staff into the project and programme planning machinery.
- (6) Lack of gainful employment opportunities in the private and public sectors, suggesting strategies associated with labour-intensive methods of construction, "make work" schemes and block systems of farming.

1.53 Doubtless, this list will be added to as time goes on. It is important to note, however, that one strategy by itself is not usually sufficient to overcome any one bottleneck and so achieve the designated objective. To focus, for instance, only on credit as a means of overcoming financial bottlenecks is to imply that none of the other bottlenecks is important. The truth of this must be verified through research. Usually, it is a combination of bottlenecks which forms the obstacle to goal achievement, though the mix may differ from one area to another.

1.54 A cross-tabulation of project bottlenecks against project objectives is provided on page 16. Its function is to ensure that planners give due consideration to all possible sources of bottlenecks constraining achievement of a particular objective or sets of objectives. This approach prompts the planner to search for possible strategies to fill each of the squares under every type of bottleneck. In the first table the cells are filled with those SRDP activities which are currently being tried, and in the second table hybrid maize promotion has been used as an example to illustrate the use of cross-tabulation for an individual project.

Tables such as these invite planners to choose relevant strategies from among those indicated in the various cells, although the tables are not intended to be exhaustive lists of all possible strategies. Effort is required to devise altogether new strategies, possibly based on some

technical innovation. Choice of strategy is nevertheless a serious operational problem, and one on which some comment should be made. First of all, once the objective has been selected, the range of choice may be much less than would appear from the table; there the objectives and the bottlenecks are stated in very general form, and any of the strategies in each of the cells looks like an alternative to any of the others. However, careful specification of the objectives and the bottlenecks restricts the choice to those strategies which are genuine alternatives for each other, in that they fill the same specific gaps. Normally choice between genuine alternatives would be based on some kind of cost-benefit analysis, relating the expected benefit over some future time period to the costs of introducing the strategy. But the necessary information is rarely available for this kind of calculation. This highlights the role of SRDP, and in particular its principle of experimentation: the comparison of alternative strategies through the organisation of different types of pilot trials is what SRDP is all about. It therefore offers a unique means of obtaining, under field conditions, the kind of information on which cost-benefit analyses for the future replicability of the strategies can be based. This very important function of providing the rationale for the application of a particular strategy (or combination of strategies) on a national level can only be performed if SRDP adheres to the principle of experimentation.

1.55 As a training exercise area planners could attempt to make similar cross-tabulations of all the SRDP projects in their areas to check on the extent to which development gaps may have been overlooked. Already it is evident from these tables that SRDP has been concentrating more on overcoming output bottlenecks, especially agricultural bottlenecks, and improving public services, especially extension services, than it has on reducing unemployment and increasing decentralization. If each project were planned with this cross-tabulation in mind, planners would find themselves forced to take more factors into account than they are presently doing. Suppose, for instance, that increasing hybrid maize output is intended as an immediate project objective. Clearly, planners are forced to consider what knowledge and skills, what financial and material inputs, what market and infrastructural development, what people-involvement appears to be required, and how unemployment relief is likely to result from increasing hybrid maize output.

1.56 In addition, the cross-tabulations require the planner to consider the implications for all four objectives of any one strategy which he selects. For example, in what ways can providing knowledge and skills in order to increase output also involve improving the public services,

increasing decentralization and reducing unemployment?

Programme Bottlenecks.

1.57 Programme bottlenecks are administrative constraints preventing the ultimate programme objectives from being attained to a greater extent. For instance, individual ministries may be simultaneously pursuing the same objective, but from different directions. Strategies therefore may be duplicated, or in conflict, or out of step with each other. Yet they may all be aimed at the same target groups. Thus, while many individual projects might have great merit, when looked at collectively, they may constitute a discordant, unconcerted confusion, serving only to disgruntle the rural people. What could the likely bottlenecks to achieving a streamlined, integrated rural development programme be? Here too, the attempt has been made to compile a list of the major administrative bottlenecks to focus attention upon finding and testing strategies to overcome them. These are:

- (1) Lack of organization for the conduct of the SRDP, suggesting strategies associated with co-ordination of policy and action within and between the area, the government ministries and the donor agencies.
- (2) Lack of control over project and programme development and execution, suggesting strategies associated with monitoring and reporting systems and intercommunications.
- (3) Lack of planning resources for designing experimental projects which are integrated into a programme of projects, suggesting strategies associated with increasing planning, training and problem-solving capacities.
- (4) Lack of implementation resources for executing a planned programme of experimental projects suggesting strategies associated with staff, financial, and material allocations and deployment.

1.58 Up till now, as overall co-ordinator of SRDP, MFP has necessarily spent much of its time providing an increasingly viable organisation and control system, through area co-ordinators, ministerial linkmen, district development committees, and the reporting system. It has also spent much time in providing many implementation resources, particularly with respect to facilitating release of funds. Still lacking are adequate planning resources, particularly specialist expertise, and a monitoring system which blows the whistle loudly and clearly when SRDP principles are violated or ignored.

Conclusions

1.59 The attempt has been made to categorize project and administrative bottlenecks that might be constraining the achievement of SRDP objectives, in order to facilitate and systematize the search for viable strategies to overcome the bottlenecks. It is recommended that these classifications be clearly explained to all parties involved in SRDP; knowing the rules and objectives of the game and having some idea of the bottlenecks to be overcome to gain the objectives to a greater extent constitutes a giant step towards attaining a significant break-through in achieving self-generating rural development.

PART II

CASE STUDIES OF INDIVIDUAL PROJECTS

2.1 The terms of reference request the evaluation of certain specific projects, for the most part the leading, most frequently mentioned, SRDP projects. Because it is impossible to do justice to these projects in a limited space, the greater part of the material is provided in the appendices to this report. In order to illustrate the way in which the planning and implementation of these SRDP projects have been related to the principles, objectives, and strategies of SRDP, the material for each project has been highly summarised and presented here as a case study. A standard format has been employed to facilitate comparison of one project with another, in terms of the essence of SRDP.

2.2 Two case studies additional to those requested in the terms of reference have been added, on the grounds that they illustrate points which do not arise under the other projects. These are the livestock marketing development project in Kapenguria, and the sequential implementation procedure used in Kwale. It has not proved possible to evaluate the Tetu Farm Management and Planning Project; there is therefore no case study on this.

THE MASTER FARMERS (SELECTIVE EXTENSION) PROJECT (MIGORI)

2.3 The Master Farmer Project aimed at increasing the output of selected above-average farmers via increased extension inputs, so as to make them models for other farmers. That project never reached the implementation stage but a similar project, the Selective Extension Project, currently exists.

Objective: To increase agricultural output of all types of farmers.

Perceived Bottlenecks: 1. Lack of knowledge and skills of agricultural techniques.

2. Lack of financial and material inputs.

Implementation: 1. Each of the 63 extension agents in the area selected the ten "best" farmers known to them in their sub-locations. But they have yet to be "highly trained" due to lack of information regarding agronomic suitability of agricultural enterprises.

2. Loans to farmers were not readily available. As an alternative measure, commercial bank cooperation was secured to provide 13 locally appointed stockists with loans to carry agricultural inputs. Hope was that stockists would extend credit to their customers, thereby substituting for the abortive loans programme.

Evaluation:

The original Master Farmers' Project was based on a classification system for dividing selected farmers into groups according to their level of progressiveness; the farmers in the scheme were to receive special attention from extension agents. There was no assessment of the likely response to the proposed reward system, or of other alternative criteria. Under the new Selective Extension Project the sub-strategies to train the model farmers are not adequately defined, due to the lack of agronomic research into crop possibilities for the area, or into the present state of crops and husbandry on the selected farms. Because of lack of information on the latter for either the selected group or their neighbours, evaluation of improvement in the agricultural skills of either will be difficult when implementation takes place. The Bank extended Sh 28,000 as loans to input stockists. With the entire amount now repaid, the bank is seeking to expand the base of stockists for repeated loaning. However, no information as yet has been gathered regarding the degree to which stockists extended credit to farmers. The Loans to Input Stockists sub-project seems to have potential for replication elsewhere.

Recommendation:

We are not convinced that, by themselves, selected farmers are likely to serve as effective models. We recommend that the selected group should include some less progressive farmers to serve as control and comparison groups. The Loans to Input Stockists appears to us to be a co-project, not a sub-project of the selective extension project. It should be carefully documented. We also recommend research to find out what effect extending bank loans to stockists is having upon agriculture in the area.

THE ROADS PROJECT (MIGORI)

2.4 The Migori SRDP emphasised road construction, as did all the other SRDPs. The project is more advanced in Migori, and incorporates many of the features of the other roads projects.

Objectives: 1. To increase agricultural output.
2. To reduce unemployment.
3. To improve public services.

Perceived Bottlenecks: 1. Lack of access to markets.
2. Lack of employment opportunities.

Strategies: 1. Build 215 miles of feeder roads, 8 ft. wide, to improve access.
2. Use labour-intensive means of clearing, earthmoving, and maintenance, employing 200 unskilled labourers at a time. Use machinery only for road finishing.

Implementation: 1. Over 50 miles of carriageway were constructed, to a width of 12 ft. to encourage MOW to take over maintenance.
2. The labour force was reduced to 10 persons from the sub-location through which the road was being constructed. This labour was used only for bush clearing; heavy machinery was used for the rest. Wages of Shs. 200.00 per month were paid.

Evaluation: The strategy to increase local employment was new to Kenya, and, had it been implemented, its costs could have been compared with those of normal road-building methods. The strategy to expand markets and improve public services through improved access is not new. Local officials claim improved access to markets for rice growers, and easier surveillance of cattle smuggling across the Tanzania border into Kenya. No significant employment has been generated in road work; a few people are employed for 3 month terms at reportedly high wages compared to MOA rates. External resources went beyond the point of experimentation: heavy equipment was used which MOW cannot afford to employ intensively under normal conditions. The method finally employed to build the roads is not an experimental new strategy; it is only a replication of an old prototype. The effectiveness of road-building as a strategy to increase agricultural output or improve public services will not be established until it has been evaluated over several

seasons.

Recommendation: Efforts should be made to assess increased output resulting from infrastructural construction. The feasibility of labour intensive road building remains untested since the strategy was changed during implementation. This strategy if followed could provide valuable results.

THE COTTON BLOCKS PROJECT (MBERE)

2.5 There was, at the time of planning the Mberé programme, a paucity of information about the agronomic performance of crops best suited to its different ecological zones. This paucity was recognized in the plan. Nevertheless, pressure to show visible signs of SRDP resulted in premature implementation of the Cotton Blocks Project, cotton being a crop for which experimental trial though not actual practice yields were available

Objectives: To increase cotton output and reduce unemployment.
(We have identified ten statements of objectives, reflecting the uncertainty of planning of this project. We have boiled them down to the two above)

Perceived Bottlenecks:

1. Lack of agronomic information about crop potential and performance.
2. Lack of cotton husbandry knowledge and skills.
3. Lack of gainful employment opportunities (even though the plan characterizes Mberé as a labour-scare-land-abundant area).

Strategies:

1. Carry out agronomic research trials to obtain information on suitable crops for the area.
2. Develop cotton blocks - centrally administered, locally managed, and using hired labour - on rented land, for demonstration purposes.
3. Improved extension coupled with training, and demonstration effects from cotton blocks.

Implementation:

1. Cotton blocks started in the absence of information on environmental suitability for cotton, and in face of expert advice against the project.
2. Target acreage reduced from 500 acres to 280 acres due to unwillingness of the clans to lease land for the project.
3. 178 acres cleared, 169 ploughed, and only about 48 acres planted. Despite lateness of the rains the "optimal" planting date was rigidly applied so (a) what was planted failed to germinate, and (b) clearing and

ploughing stopped before it was really necessary.

4. The project was declared a failure, and the land was left unused.

Evaluation: Research into the technical, economic, and social factors was insufficient. Indications of the economic infeasibility of the project were not followed up. Cost-benefit evaluation should have halted the project prior to initial implementation, as would have seeking the opinion of the local inhabitants as to their willingness to part with land for the blocks. There is strong probability that external inputs exceeded the experimental level, and could not be replaced satisfactorily by local resources. The agronomic research trials have high replicability potential.

Recommendation: We recommend experimentation to focus on agronomic research trials. The idea of cotton blocks should not be revived for the Division.

THE EXTENSION PILOT PROJECT (TETU)

2.6 The Tetu SRDP focussed on increased agricultural output, especially hybrid maize output, of all types of farmers via experimentation with extension techniques. Local planners commissioned IDS to carry out baseline research to identify extension-related bottlenecks. The extension pilot project is based on the survey findings.

Objectives: Starting with hybrid maize and less progressive small-holding farmers, to increase agricultural output of all types of farmers.

Perceived Bottlenecks: A. Farmers

1. Lack of knowledge and skills of husbandry techniques.
2. Lack of material inputs for hybrid maize cultivation.
3. Lack of finance to pay FTC fees.

B. The Extension Staff

1. Lack of knowledge and skills of communication, curriculum development.
2. Lack of differentiation procedures for selecting farmers as to progressiveness level.
3. Lack of functional linkage between FTC and Field Staff.

Strategies: A. Farmers

1. FTC training according to level of progressiveness and field follow-up initially, 225 farmers to be selected.
2. Loans by way of inputs for $\frac{1}{2}$ acre trial plots of hybrid maize, secured by the crop.
3. Bursaries to attend FTC for hybrid maize training.

B. The Extension Staff

1. Training in communication, curriculum development techniques.
2. Progressive index to differentiate farmers for FTC training selection.
3. Field staff to attend FTC with their clients, to act as resource men, and ensure adequate follow-up.

Implementation: A. Farmers

1. FTC training with follow-up for 217 farmers (about 25 from each of five sublocations) but not according to progressiveness level. Farmers make their own cost/benefit analyses of adopting hybrid maize.
2. Loan inputs provided through FTC, to be later changed to Vihiga-type voucher system. Farmers volunteered to supervise loan repayments. Related proposal to establish revolving fund for loan financing.
3. Bursaries and free transportation to FTC provided.

B. The Extension Staff

1. FTC staff received communication training. Hybrid maize curriculum developed and "stretched out" to cover 3 days of training.
2. Index developed but not used. Selection left in the hands of sublocational JAA and subchief.
3. Field staff attended courses with their clients, thus also being exposed to the new curriculum.

Evaluation: Perceived bottlenecks were identified through a process of formal research and informal discussion with extension staff and local officials, and a new set of strategies showing experimental promise was developed in relation to these bottlenecks. Since a large number of treatments were simultaneously implemented, it is impossible to identify which one(s) led to the successful recruitment of farmers and possible success in

reaching the project objectives. Replication of the inputs on credit will only be justifiable if loan repayment is good, permitting a revolving fund to be established. It appears that continued experimental inputs will be necessary to develop curricula for each new crop or livestock practice included in the project. All farmers except one accepted the loan and have planted $\frac{1}{2}$ acre trial plots of hybrid maize. Some used their own funds to increase the acreage. Diffusion effects are claimed to be about 3 additional farmers influenced per each participant who attended the FTC course.

Recommendation: It is recommended that further testing be carried out in order to determine which of the several strategies used are the most critical; those which are unnecessary could be eliminated. It is also recommended that further testing be done to establish methods of recruiting less progressive farmers.

THE SPECIAL 4K PROJECT (TETU)

2.7 The Tetu Special 4K Project apparently evolved separately from the other SRDP agricultural projects in the division, and made no use of the Tetu baseline survey. The objectives of the project as it has been implemented are increasingly divorced from its original objective.

Objectives:

1. To increase agricultural output by the next generation (the youths), and to attract them into farming.
2. To increase agricultural output of less progressive adults through the demonstration effect.
3. To increase the production of nutritious (high-protein) foods.

Perceived Bottlenecks:

1. Lack of knowledge and husbandry skills.
2. Lack of material inputs for new techniques.

Strategies:

1. FTC training for 300 youths between 14 and 18 years of age annually in hybrid maize and bean husbandry, and 4K JAA follow-up on each 4K club course participant.
2. Input loans in the form of seed, fertiliser, insecticide, and tools for one half-acre plot (to be supplied by the parent).
3. Demonstration effect of home plots on parents and neighbours of the youths.

Implementation:

1. FTC training for 3 weeks for 300 children of between 10 and 14 years of age annually, in hybrid maize only, plus 4K JAA follow-up.

2. Input loans as above, of which only 42 per cent were repaid 6 months after harvest. Apparently all grew hybrid maize, but an unknown number of the crops failed.

Evaluation: The project as implemented overlaps with the Extension Pilot Project, although the latter aims directly at the adults. The nutrition objective was forgotten during implementation. The Tetu baseline survey, had it been consulted, would have shown that 60 per cent of 4K members' families already grew hybrid maize; a different crop should have been chosen. The half-acre requirement tends to favour the children of the more progressive farmers, thus not involving those for whom the demonstration effect upon parents might have pay-off and for whom the project was originally intended. The desired effects on the children cannot be measured until they leave school some 4 to 10 years hence. Existing resources cannot cope with the 58 per cent default on the loans. No attempt at evaluation was made, beyond confirmation of the hybrid cultivation, and yet the project is being replicated. One can question the wisdom of allocating so much extension staff time and loan resources on small children, while neglecting real young farmers.

Recommendation: It is recommended that the project as presently conceived be changed, that efforts be made to determine the characteristics of 4K members and the problems of rural youth more clearly, and that the project be evolved to fit these.

THE MAIZE CREDIT PACKAGE (VIHIGA)

2.8 The Vihiga S.R.D.P. originally identified maize, fruit and vegetable, and dairying as the appropriate products for the main thrust of the agricultural programme, coupled with experimentation with extension aimed at reaching all types of farmers. With donor involvement, a credit package focussing on hybrid maize and backed up by intensive extension supervision evolved. Inadequate use was made of the available data on the resources and needs of the area, and the choice of both objective and strategy was strongly conditioned by an over-simplified interpretation of the resource endowment, and therefore of the development potential and the probable bottlenecks in the area, and by the donors concern for a project yielding immediate and visible results.

Objectives: To attain more widespread adoption of hybrid maize, and to release land for alternative uses.

Perceived Bottlenecks:

1. Lack of finance to hire labour and purchase material inputs for hybrid maize cultivation.
2. Lack of husbandry knowledge and skills appropriate to hybrid maize cultivation.

Strategies:

1. The provision of credit, secured by the crop and to be repaid in cash, to purchase material inputs (though not to hire labour) in quantities appropriate to attain recommended application rates, through a system of vouchers to be honoured by input stockists and redeemed by the A.F.C.
2. Intensive extension supervision.

Implementation:

1. Concern to achieve a high loan repayment rate led to creditworthiness of the borrower replacing the crop as security for the loan, and the introduction of a minimum maize acreage of two acres as a further criterion for entitlement to the loan.
2. Seventy-six farmers were selected from a total exceeding 50,000; sixty-three used the credit.
3. Frequent follow-up supervision was provided by extension personnel.

Evaluation: The initial fact-finding was not oriented towards identifying bottlenecks related to the project which was initiated; consequently the project bears little relationship to the resource availability of Vihiga. The project had little experimental content. There are doubts that the resource requirements of the intensive extension supervision are too great and the attention devoted to institutional aspects of the provision of credit and inputs too little to permit replicability. As a general means of offering credit against a crop not marketed by a parastatal body its replicability has not been established. The project changed substantially in the course of implementation, becoming highly selective in contrast to its more general initial objectives.

- Recommendations:
1. The future of the project should be clarified; although the number of participants is increasing the specific benefits which it has brought have not yet been identified. The project should be modified to permit this, and to re-align it to SRDP principles. Institutional problems have still to be solved before the project can be replicable, even if positive benefits are found.
 2. An alternative interpretation of the resource situation in Vihiga, pointing to the possible labour shortage, should be used to develop a wider range of products to be encouraged, with attention being paid the diversity of the resource base.
 3. Experimentation with methods of inducing methods of change should be pursued.
 4. Consideration should be given to the possibility of using the existing institutional structure in Vihiga to a greater extent.

THE SRDP REPORTING SYSTEM

2.9 The reporting system consists of an administrative procedure to programme (phase), monitor, control and report the implementation of individual SRDP projects. The officer responsible is the SRDP Area Co-ordinator who uses the system for "operations control". Large phasing charts on the wall in his office enable easy monitoring of the extent to which objectives agreed upon in monthly meetings with Divisional staff have been achieved and allow the AC to push operations which have lagged behind. The phasing charts form the basis of a monthly report. The system introduces network analysis and detailed action planning into field of rural development procedures.

Objectives: 1. To increase the capacity of the Divisional Government machinery to programme, control and report project implementation.

Perceived Bottlenecks:

1. Unsystematic implementation procedures, leading to delays because implementation plans have not been properly phased.
2. Absence of co-ordination and steering mechanisms in project implementation.
3. Lack of a systematic reporting system.

- Strategies:
1. Annual meeting of Divisional officers of different Ministries and Nairobi sectoral Ministry officials (the "linkmen") to break down budgeted projects into their component operations.
 2. Enter these operations into "Annual Phasing Form", together with officer responsible, resources required and starting and completion dates.
 3. Transfer data to "Programming Chart" which functions as wall time-planning calendar. Planned operations are marked in with black ink.
 4. The programming charts become management tools, transforming the Area Co-ordinators office into an operations control room. At a monthly meeting of Divisional staff, monthly targets are written on the chart. At the next meeting, the AC marks progress on the chart, projects which lag in red ink, projects which are ahead or on time in green. This procedure allows him to steer the operations, and to prod lagging operations without having to become commandeering.
 5. The monthly record provides the basis for the monthly report. This report keeps officers in the field and Nairobi informed and acts as a record of proceedings.

Implementation: Over 30 major SRDP projects have been phased and are being controlled and reported upon according to the system.

Evaluation: The reporting system has been hailed by all Area Co-ordinators as a useful tool for co-ordinating and guiding the implementation of projects in a situation where they have little formal control. It allows systematic network analysis procedures and greatly facilitates action planning and implementation but a weakness is the time taken in producing and distributing the monthly report. The breakdown of budgeted projects into component operations is a difficult task which might require continuous services of more qualified personnel than available in the Division (meanwhile a checklist of component operations of projects has been prepared). It is not always easy to choose measurable but relevant indicators of progress. Some, especially self-help projects, are difficult to control with the system. Moreover, it does not evaluate the effect of implementation, but the implementation itself. Efforts are now underway to develop an annual evaluation which tries to take account of effect.

The Reporting System seems eminently replicable, especially in view of the newly established District Development Officers who will play a major role in implementing the recent District Planning policy of the Kenya Government.

Recommendations: The present system concentrates especially on individual projects. Methods of expanding the system to allow co-ordination of a programme of projects for achieving ultimate programme objectives have been explored, but need to be evaluated. We further recommend that the system be modified to reflect the SRDP principles so as to monitor violations and infringements.

THE LIVESTOCK MARKETING PROJECT (KAPENGURIA)

2.10 This project encompasses more than the SRDP division; it was designed to serve the entire District, as well as to channel cattle coming from Turkana.

Objectives: To increase cattle trading and circulation of money in the range areas, as the prelude to gaining the acceptance by the cattle owners of organised ranches.

Perceived Bottlenecks:

1. Quarantines due to disease preventing regular livestock sales.
2. The rangeland people's dislike of organised ranches.
3. Lack of adequate infrastructure, e.g. roads, dips, etc.

Strategies:

1. Setting up a series of sale yards and holding grounds equipped with fencing, water supply, and dip/spray facilities.
2. Linking locational holding grounds with the main holding ground by fenced stock routes, with water points where necessary
3. Acquisition of Mwisho ADC farm, as the main holding ground, by the Veterinary Department.
4. Improvement of the roads to the sale yards, for use by cattle traders, veterinary staff, and produce traders.
5. Provision of water supplies, both for livestock and human consumption, in the range areas.
6. Intensification of disease control.

- Implementation:
1. Implementation was slowed down by delays in the release of funds, staff, and equipment.
 2. There were difficulties obtaining adequate amounts of land from the Country Council and or local inhabitants for some holding grounds.
 3. Control by the Country Council hinders properly equipped sale yards.
 4. Control of Mwisho farm was obtained in July, 1972.
 5. The burden of holding ground fees, paid by the cattle traders, is being passed back to the cattle owners through lower selling prices.
 6. The system was put into operation in July, 1972, although work was yet to be completed on all the holding grounds.

Evaluation: The system of holding grounds appears to be well organised, but there seems to be no basis for the assumption that improved marketing facilities will lead to a significant increase in cattle sales. Information on the consumption and spending patterns of the people is lacking, and therefore it is not known what would serve as an incentive to increased sale of cattle, where overstocking exists. At present the project does not strongly adhere to the SRDP principles, but if redesigned might turn out to be a "breakthrough" strategy for pastoral development.

Recommendation: A careful monitoring of the cattle owners' reactions to the newly devised system should take place with a view to learning what modifications might bring more beneficial returns to the owners, and which might in turn stimulate cattle sales. Secondly, fact-finding and consultation with the rangeland peoples need to be carried out to permit the re-design of the project in accordance with the SRDP principles, and moreover, to learn new ways to gain the support of the people in this and other projects.

THE SEQUENTIAL IMPLEMENTATION PROCEDURE (KWALE)

2.11 Kwale SRDP was launched a year later than other areas. Therefore it was able to learn some lessons, the most important being to avoid premature mobilization of people. Thus, mobilization was planned to be followed immediately by a project. This notion forms the cornerstone of the Sequential Implementation Procedure. The idea was locally born and bred from common sense. We merely came along, recognized it as

valuable, and gave it a name. Though not formally requested in our terms of reference, we are reporting the procedure because it has high potential for replication.

Objective: To generate widespread public support for, and involvement in SRDP.

Perceived Bottleneck: It was believed that existing public opinion was skeptical of Government programmes and thus might constrain acceptance of SRDP.

Strategy: Launching of SRDP to be followed by a popular, ready-to-go project which:

- (a) Meets with immediate widespread approval.
- (b) Visibly involves and benefits many people at once.
- (c) Has highly predictable short-run pay-off.

It is reasoned that a project with such qualities following immediately upon mobilization will generate public goodwill and increase Government credibility, thus facilitating introduction of later less popular projects.

Implementation: Projects were sequentially ordered for implementation according to the strategy criteria. Infrastructural facilities headed by water then roads satisfied the criteria well and were given priority of implementation. Agricultural activities, especially AI, fell at the bottom of the list. They will be implemented later.

Evaluation: An experiment was made in trying out new criteria for selecting and scheduling projects in SRDP. Greater use of existing resources was permitted through flexibility in phasing projects. The reception of the first project has indicated the feasibility and the high pay-off of the criteria: the self-help enthusiasm shown for the water project is unprecedented. Flexibility in phasing has been used to ensure maintenance of the momentum. The blueprint and the prototype are simple and potentially highly replicable.

Recommendation: Thorough documentation and continued testing of this procedure is recommended.

III. SPECIFIC QUESTIONS FOR EVALUATION

1. IS THE PLANNING FRAMEWORK DEVELOPED FOR SRDP ADEQUATE OR EFFECTIVE TO MEET ITS PRINCIPLES AND OBJECTIVES?

3.1 To assess whether the planning framework developed for the SRDP is adequate or effective to meet its principles and objectives, we must of necessity begin by outlining the planning framework thus far evolved for SRDP.

3.2 The current (1970/74) Development Plan states that the planning of SRDP will be jointly done by field and headquarters officers (pp 174-175). The planning framework developed immediately after the formation of the National Rural Development Secretariat (MRDP) seems to have taken account of this declaration. In 1969 the National Rural Development Secretariat circulated to the Provincial Planning Officers (P.P.Os) a memo entitled "Checklist of Procedures to be used in Preparing Area Projects for the Special Rural Development Programme".¹ This memo was supposed to be the blueprint for preparing area based plans. Below we identify its principal tenets.

3.3 In initial stage of the planning process a survey of the area was to be carried out to identify:

- (i) the potential of the area;
- (ii) constraints preventing the potential from being realised;
- (iii) the programmes and actions to be taken to overcome these constraints;
- (iv) the resources needed to carry out these programmes.

The survey was also intended to identify the existing programmes and to take account of the history of development in the area.

In Stage II, on the basis of information gathered in Stage I, the officer responsible for planning would draw up a draft strategy for the area. This draft was to be discussed with the District (technical) heads of department and their approval secured. Stage III was to consist of the P.P.O. preparing a draft plan, based on discussions with District heads, which he would forward to the NRDS (now the Regional and Physical Planning Unit).

¹ This memo was not dated, and had no reference number.

3.4 The NRDS had developed a method for assessing whether the procedures laid down for project identification had been adhered to; the process was explained in "Special Rural Development Programme: Procedures for Processing Proposals for Area Programmes" (EPD 237/01 of 11/8/69). According to the criteria specified in this document the Secretariat would check the draft plan during Stage IV. In addition, the draft plans would be circulated to the concerned Ministries as well as the "Sectoral Officers" in the Ministry of Planning for specific and general comments. On the basis of these comments, the Secretariat would prepare programme summaries (these came out as Outline Programmes) which were returned to the P.P.Os for clearance with the District and Provincial Development Committees. Stage V was to consist of working out the details of the programme such as work plan, estimates, etc. after clearances were secured. The programme details were to be forwarded to the Secretariat which would secure departmental approval at the headquarters. In Stage VI implementation was to commence after these processes had been successfully completed.

3.5 The planning framework described above was used mainly in the formative days to produce the 1st Draft Plans for five of the six phase 1 areas. There were however variations. In the first place, no surveys as called for in Stage 1 were made by the P.P.Os. Instead the P.P.Os made use of the 1968 data where available and/or relied heavily on the material provided by the departments.

3.6 Instead of actually planning the developments of the areas, some of the P.P.Os edited the departmental proposals in their respective areas which were ultimately forwarded in a single document to the NRDC Secretariat as the Draft Plan for the area. There were, of course, obvious limitations on the amount of time the P.P.Os could devote to this task since they also had to cater for routine development of the entire province: they could not give SRDP the kind of attention it demanded. In some areas (e.g. Migori, Vihiga, Mbere) the situation was further complicated by the presence of expatriates. In Mbere, for instance, the Government officers played only an informational role in the initial stages. The Norwegians did the bulk of the work. That was later true of Migori and Vihiga where the local level officers abdicated their planning functions as soon as the technical assistance teams from respectively FAO-SIDA and USAID arrived in the area. The use of technical assistance in SRDP planning is regretted because it decreased the value of the lessons learnt from this first effort at decentralized area-based planning about local capabilities to carry out such planning.

3.7 The Ministry of Planning specifically introduced new structures into the SRDP planning process: the NRDC Secretariat and the linkmen system in the various Ministries. The linkmen system did not work well at the beginning because of the delay in selling the SRDP principles to the operating Ministries. Even today a number of linkmen in the Ministries continue to function only nominally. And in some cases, they are both inexperienced and lack "political" strength in their respective Ministries to get resources firmly committed to the SRDP.

3.8 The role which the NRDC Secretariat has played since the start of SRDP is in many ways commendable. It deserves special mention for its probing role which made Ministries act even when initially reluctant. However, its planning role might have been better performed if the Secretariat had enough specialized manpower to allow it to release individuals on a routine basis to visit the programme areas, explain the principles and objectives of SRDP and advise on how to incorporate them in area plans. We have, in the main report, identified this to be a major bottleneck in the evolution of the SRDP.

3.9 The role which the existing structures, especially the District and Provincial Development Committees, have played varies from one area to another. In general however, the Development Committees have mainly played the "approval role" being relegated to an inferior position on SRDP affairs. Such areas now have their own Development Committees at the Project level; this development has come about, not as a directive from Nairobi, but mainly as a result of initiative taken by the newly appointed Area Coordinators. The Migori set-up is the most remarkable we have encountered. Compared to the D.D.C., it is more adequate and effective, in that most of the SRDP proposals are now being developed by the local committee. Although we do not believe that the basis for planning should be the Division, we wish to draw the attention of the MFP to the Migori set-up because we feel it could function as a model for an effective District Development Committee.

3.10 At this stage in the evolution of SRDP, a systematic planning framework for project planning and implementation could prove helpful. We feel it would be useful to provide a model which illustrates the step-wise procedures in project planning, design and execution based on the information contained in the Functional Model. To this end, we offer

the following problem-solving procedure for identifying and overcoming bottlenecks constraining the achievement of such objectives as increasing output, employment and decentralization.

THE PROBLEM SOLVING PROCEDURE OF PROJECT PLANNING AND IMPLEMENTATION

1. The Objective

- a. Determine through research the extent to which the objective has already been met as a result of existing strategies.
- b. Estimate the greater extent to which the objective can be potentially achieved.
- c. Formulate the objective on the basis of the gap needing to be filled between the present and the desired output, thereby specifying the magnitude of the problem to be solved.

2. The Diagnosis

- a. List all possible bottlenecks likely to be constraining the achievement of the objective to a greater extent.
- b. Determine through research which are the most critical bottlenecks, thereby formulating the diagnosis of the problem.

3. The Strategy

- a. Brainstorm to elicit ideas of strategies likely to overcome the critical bottlenecks.
- b. Check the feasibility and extent of pay-off of each idea on paper and by gathering opinion information from potential recipients.
- c. Formulate the strategy on the basis of ideas which can be shown in principle to have high feasibility and pay-off.

4. The Implementation

- a. Design an experiment to test the feasibility and pay-off of the selected strategy, thereby also creating a visible prototype.
- b. Execute the experiment using a step-by-step phasing, pacing and time planning framework, such as the reporting system.

5. The Evaluation

- a. Monitor and report progress to ensure that it remains on target, taking account of unforeseen developments.
- b. Evaluate the results of experimentation to determine the extent of success or failure in achieving the objective.
- c. If failure, review each step in the procedure one by one to see where you might have gone wrong before concluding that the strategy selected does not work.

6. The Replication

- a. If success, document step-by-step the strategy development and testing procedures in order to create a blueprint to aid replication.
- b. Repeat the strategy on the same group (if feasible) and on a wider scale within the experimental area to determine ease and extent of replicability.
- c. If failure, back to the drawing-board; if success, replicate elsewhere in the country.

We recommend that this problem-solving procedure be adapted and tested further in developing SRDP projects.

2. IN PLANNING SRDP, WAS THE UNEXPLOITED POTENTIAL FOR DEVELOPMENT OF EACH AREA ADEQUATELY ASSESSED?

3.11 "Potential" is an ambiguous term which refers to the possible resultant interaction between (1) natural resource endowment, (2) available technology, (3) available capital, (4) expected profitability, and (5) possible local acceptance. As such, the term "potential" does not provide a very useful concept for planners. For instance, to an Israeli, with his ability to produce juicy apples from the desert, the low lands in Kapenguria may be full of potential, while we usually call them low potential.

3.12 Given the ambiguity of the term, it would be unfair to castigate SRDP for not having systematically and thoroughly assessed the potential of each SRDP area. However, a few remarks can be made which might assist SRDP efforts in the future.

3.13 (1) It is not enough to assume that potential for development is vast and self-evident so that a cursory review can replace a thorough consideration of possibilities. Local people, who have to live off an area, are usually wise enough to optimally use existing resources. However, there are major new technologies, new and useful bodies of knowledge and sources of capital of which they are not aware or have no access to and which could be made available in a development effort.

3.14 (2) It is not enough to assess possibilities in view of technical feasibility. In Kenya the individual producer still retains primacy as decision-maker and it is unlikely that he will be convinced of the usefulness of a technical standard when it is not in his own interests: in relation to the resources currently at his disposal an externally selected technical target is quite likely to be uneconomic. But he may be open to being convinced that he should alter the existing allocation of his resources in a particular direction, or to learning a new technique provided it is to his benefit. Thus, feasibility should also take into account the relative advantage of an innovation for local people and acceptability of

an innovation in terms of local aspirations, values, and norms. In this connection, it may be stated that SRDP projects have given too little attention to profitability for the rural family (e.g. cotton blocks, Mbere) and too little attention to consultation with local people in the planning stage. Instead, attention was focussed in many project areas on technical targets. For example, in Vihiga, the "potential" for increasing hybrid maize yields appears to have been based on the difference between an average yield of, say, eight bags per acre, and what was considered to be technically feasible, say, thirty bags per acre.

3.15 (3) Although technical feasibility is, as said, not sufficient for potential assessment, it is necessary for it. Potential assessment of an area should be based on thorough knowledge of available technology. The attempt made in SRDP to identify available technologies has been insufficient. Especially in an experimental programme like SRDP, an effort should at least be made to identify methods, techniques, projects and programmes which have worked elsewhere. As it is, very few new technologies, except for such regulars as hybrid maize, have been identified. It is new technologies that determine the possibilities of an area over and above those which the local people are already exploiting. For example, the introduction of tea, pyrethrum and grade cattle gave value to the high and cold areas of the Aberdares and Mount Kenya.

3.16 (4) It is recommended that "potential" be broken up into its component parts of (a) technical potential, (b) profitability, and (c) acceptance by the people; and that future efforts to estimate potential take account of all three.

3.17 It is further recommended that SRDP make a major effort to identify new available technologies and incorporate them into projects. An example is the new high yielding cow pea which has been developed by Leakey at Makerere. It is for identifying such possibilities that expertise should be used, not for implementation of projects.

3. WERE THE PROBABLE CONSTRAINTS PREVENTING THIS POTENTIAL FROM BEING MAXIMALLY EXPLOITED ADEQUATELY ASSESSED?

3.18 The answer to this question is very closely related to the previous question. If assessment is conducted in accordance with the recommendations elicited by the previous question, then the assessment of the constraints goes on simultaneously with the assessment of the potential. Identification of perceived needs and identification of the perceived constraints are two aspects of one process.

3.19 There appear to be two aspects to the assessment of constraints: identification, and measurement. The former process can be assisted by a systematic classification of bottlenecks such as that provided in Part 1, pages 18 to 22. The absence of such a classification to date is one reason why the search for suitable strategies to overcome bottlenecks has lacked focus; perhaps the bottlenecks were considered to be self-evident, like the potential for development. The emphasis on the shortage of capital and lack of know-how - typical panaceas - would appear to bear this out. A systematic listing, however, forces planners to examine the relevance of other types of bottlenecks, and assists them to appraise each one critically before selecting those which are the most important to be overcome. In relation to encouraging local participation in planning, the best use for the cross-tabulation of objectives and bottlenecks is in searching for local interpretations of the bottlenecks to local development initiatives. The classification system should be used as a prompting device in the process of identifying local assessments of potential and constraints.

3.20 It is recommended, therefore, that SRDP personnel be made familiar with the bottleneck classification system, and become competent in the use of it for the purpose of identifying constraints on the attainment of the potential of an area, and selecting experimental strategies to be tested.

4. TO WHAT EXTENT ARE SRDP PROJECTS INTEGRATED OR COORDINATED WITH ON-GOING PROGRAMMES AND TO WHAT EXTENT HAVE ON-GOING PROGRAMMES BEEN LABELLED SRDP?

3.21 So-far, most SRDP programmes, and all of those included in the case studies in this report, except, perhaps, Mbera, are being treated as separate entities over and above on-going projects. They are squeezed in or added onto, rather than integrated with, on-going projects.

This becomes evident at the junior field staff level, with junior field assistants complaining, justifiably, that SRDP has simply been added onto their normal duties. This condition may be relieved by accepting some re-arrangements so that SRDP programmes replace other programmes which are cut down or eliminated. This calls for considerably more support from operating Ministries than SRDP currently appears to get, Ministries being prepared to consider reducing other activities in order to augment the resources put into SRDP. It also calls for SRDP programmes to be considered in conjunction with on-going programmes to see how they can best be integrated. Integrating SRDP projects with each other and SRDP projects with on-going programmes are both essential if the projects are to constitute a programme of project strategies designed to achieve ultimate objectives to the maximum. Not even within SRDP are individual projects always integrated. In Tetu, for example, the extension pilot project, the 4K Club project, and the farm management project operate quite independently of one another although they seem ideally suited to integration; all are SRDP.

3.22 The extent to which on-going programmes have been relabelled SRDP is another question. In nearly all SRDP areas all development activities are labelled SRDP. There is some justification for doing this: label everything SRDP to give an impression that SRDP is moving, to get more commitment to the total development effort, and so on. But it is important to resist this temptation for several reasons. If the "special" characteristics of SRDP programmes are not recognised they tend very quickly to disappear, and most of the value of SRDP is lost. The SRDP principles offer clear guidelines for determining what is and what is not SRDP. If a project or programme is labelled SRDP it should be made to adhere to SRDP principles and objectives. Relabelling is permissible if an on-going project is a supportive or integral part of an SRDP experiment.

3.23 There is a financial side to the argument: whether a project or programme is funded by SRDP or not. A project should only be eligible for SRDP funding if it adheres to the principles and objectives of SRDP or is a supportive project. But there is no reason why a project not funded by SRDP but adhering to its principles and objectives should not also be labelled SRDP.

3.24 We strongly recommend that the SRDP label be kept for projects that adhere to SRDP principles and objectives, and that greater effort be made to integrate SRDP projects with each other.

5. TO WHAT EXTENT ARE THE STRATEGIES AND APPROACHES TO ACCELERATE RURAL DEVELOPMENT IN SRDP AREAS NEWER OR MORE EFFECTIVE THAN THOSE WHICH THEY REPLACE OR SUPERSEDE?

3.25 Bottlenecks exist because existing strategies are proving inadequate to overcome them. SRDP came into being as a result of acknowledging this fact. It was intended to "identify and concentrate on critical development gaps and bottlenecks". This implies that SRDP should focus upon developing and testing alternative strategies for overcoming bottlenecks and filling gaps to determine which of them are more effective replacements of existing strategies. This is usually not an easy task. It has been made more difficult in SRDP because the SRDP principles and objectives have not been sufficiently understood and clarified.

3.26 Even so, SRDP has been responsible for a number of striking innovations in the development of completely new strategies and approaches to rural development. The introduction of Area Coordinators, linkmen, and the reporting system have filled important development gaps, and are acting to overcome a number of administrative bottlenecks. Several of the area-based agricultural extension schemes (Migori Selective Extension, Kwale Model Farmers, Tetu Extension Experiment); the Migori and Mbere schemes for credit to input stockists; the Vihiga maize credit programme; labour-intensive road building; sequential implementation in Kwale; and the Mbere agri-service station are all examples of strategies and approaches that are new. One of the problems is that some of the strategies that are new do not look very promising, as the appendix papers indicate. Yet, if most of the projects falling in this category are reassessed, by those concerned, in light of recommendations in this report, modifications, amendments, etc. in the strategies could put these projects on the path to effectively accelerating rural development.

3.27 Other strategies and approaches are not new, but they are made more effective than before by SRDP. Many of the cattle dip projects are likely to be more effective because of complementary

SRDP activities. The FAO fertiliser demonstration programme in Migori and Vihiga, the water development programmes, and many of the agricultural production programmes are examples of programmes likely to be more effective with SRDP, although none of them is new.

3.28 SRDP experience has shown that one of the most difficult problems is to get new, potentially successful strategies and approaches developed. This is a problem that still has to be faced. Although it is possible to list items that are new, the overwhelming impression is of programmes that are predominantly more of the same. We recommend more effort to try to get new approaches developed. One way of doing this is to have brainstorming sessions within and between areas, Ministries and donors to identify and develop viable strategies to replace those presently being used to try to overcome critical development bottlenecks. In this brainstorming, it would be crucial to involve the rural people in the SRDP areas for they, more than anyone else, know what they will and will not accept.

6. ARE THE IMPLEMENTATION STAGES EFFECTIVE ENOUGH TO TRY OUT THESE NEW STRATEGIES AND APPROACHES?

3.29 In the early days of SRDP, there were many implementation problems: delays in releasing resources, inadequate attention to sequencing and phasing, and the modification of programmes out of all recognition in the implementation process. The delays in releasing resources have already been mentioned and in some Ministries is is a problem that is still far from being solved. Inadequate attention to sequencing and phasing were particularly mentioned in the Mbere report. The influence of the implementation process on the whole character of a programme was illustrated in the Vihiga case where the consequences were particularly serious. The whole character of the Vihiga maize credit programme was altered beyond recognition in the implementation process. Changes in the implementation stages made in light of the field situation may be positive. The criterion must be, however, that modifications are made in adherence to SRDP principles and objectives. An example of some positive changes occurring in the implementation process appears in the Tetu Pilot Project (see Appendix E). We would still stress,

though, the need for carefully planning the implementation stages when designing a project.

3.30 Many of the initial problems have been rectified by the reporting system. Implementation stages are being defined, responsibilities are being specifically assigned, and timing and phasing are being more carefully planned. Many of the problems that have occurred through the inadequacy of implementation stages are being solved.

3.31 We recommend continued development and streamlining of the reporting system which hopefully could be modified to incorporate the problem solving procedures presented earlier. We further recommend that the system be modified to reflect the SRDP principles so as to monitor violations and infringements.

7. WERE THE FUNDS, STAFF, EXPERTISE, ADMINISTRATIVE COST, SPECIAL TRAINING, EQUIPMENT, ETC. ESTIMATED FOR AND PROVIDED TO SRDP AREAS INADEQUATE, ADEQUATE OR MORE THAN ADEQUATE?

3.32 In a sense one can never have enough of these resources: nothing ever seems adequate. A distinction between resources required to make the programme experimental and those required to operate the programme without its experimental content has already been recommended in this report. The use of local resources to operate the programme itself, and additional resources only in so far as they help to make the programme experimental has also been recommended. During experimentation, the ceiling for incurring expenditure to make the programme experimental is limited by the availability of resources and the extent to which the strategy being tested has a likelihood of success. For operating the programme on a continuing basis, more care is needed to ensure that resource demands are replicable.

3.33 In the early stages of SRDP there have been frequent delays and much red tape to cut to secure the release of funds, staff, equipment, etc. These delays have created a feeling of inadequacy of funds when they are most needed. Apart from complaints about delays and inflexibility of red tape, we believe that the resources so far budgeted and released have been adequate for the purposes of operating the SRDP projects and programmes, but not always adequate to make them experimental. More generous assistance may be required in the future as the experimental aspect of SRDP is more widely understood and implemented.

3.34 The use of expertise needs special mention. Tetu, Vihiga and Mbere have regular access to a variety of experts from outside, many of them resident in the areas concerned. Migori, Kapenguria and Kwale have to make do with locally available expertise, and occasional visits from outside experts who are not resident. The opinion of area-based local personnel leans to having an advisory team of centrally based multi-disciplinary experts to be on call to offer specific advice and assistance when requested. Many have voiced reservations about resident advisers, on the grounds that they take over rather than assist in programme and project planning, design and execution, and that they have a negative influence on local initiative and involvement. We concur with these views and recommend more use of centrally based teams of experts, and less reliance on experts resident locally or assigned exclusively to one particular area.

8. TO WHAT EXTENT ARE THE STRATEGIES AND APPROACHES DEvised FOR SRDP PROJECTS REPLICABLE IN THE COUNTRY AS A WHOLE?

3.35 This evaluation concludes that this question cannot be answered definitively at present, partly in view of the insufficient time for which projects have been in operation, and partly in view of the deficiencies of particular projects with respect to the other principles of SRDP.

In Part I it was stated that replicability was the hoped-for outcome of finding a successful strategy, developing a prototype, and forming blueprints of it. None of the strategies so far being tried has reached the stage where it can be said unambiguously that it is sufficiently successful for it to have achieved prototype status, with the exception of the sequential implementation procedure (Kwale). Nevertheless, there are several ideas and parts of projects which have been extended and other aspects proven effective enough to be replicated. The Tetu re-training project for FTC teachers has already been used for FTS teachers from other parts of the country; SRDP experience with Area Coordinators was partly responsible for the introduction of the DDO on a national basis; the idea of credit for input stockists which first developed in response to a local implementation problem in Migori is now being used in Mbere and Tetu as well; the maize credit package in Vihiga is being extended to large numbers of farmers within Vihiga Division. The inputs to stockists and Maize Credit Package are being extended before a successful prototype has been developed.

3.37 With respect to certain other projects, evidence that the principles and objectives of SRDP are being respected gives some guidance as to the likelihood of their eventually attaining replicability, once they reach the stage of prototype and blueprint development. The staff retraining and curriculum development strategies of the extension pilot project (Tetu), and the loans to input stockists (Migori and Mbere), may come into this category.

3.38 Other projects require substantial reassessment and modification in terms of the principles and objectives of SRDP before this stage can be reached: the 4K clubs (Tetu), the farm management project (Tetu), and the selective extension - formerly master farmers' - project (Migori), amongst others.

3.39 Certain strategies to overcome programme bottlenecks appear to have reached the point where limited testing of their replicability is appropriate, for example the notion of area co-ordination and the reporting system.

3.40 It is recommended that all project and programme strategies be reviewed and, where necessary, modified, in the light of the requirements for replicability discussed in Part 1; only then will it be possible to make clear statements about the feasibility and extent of replication. It is also recommended that mechanisms for replication, especially by DOC's, are developed.

9. HOW EFFECTIVE HAS THE ROLE OF THE AREA CO-ORDINATOR, DISTRICT DEVELOPMENT COMMITTEES, AND THE MFP IN ITS CAPACITY OF OVERALL CO-ORDINATOR BEEN?

3.41 The Area Co-ordinator seems to have become the executive officer for the SRDP areas in spite of formidable problems he has had to face. He co-ordinates without the powers of administrative authority; he is the co-ordinating arm of MFP, yet he is located in the Office of the President; his terms of reference are rather vague and ill-defined. Nevertheless he has managed to turn these weaknesses into strengths usually by the force of his own personality and diplomacy. The very indeterminateness of his position enables him to move fairly freely within the administration where others would be constrained by their positions. He has facilitated the speedy release of resources

many times because of this flexibility. In his hands the reporting system has been turned into a powerful instrument for overcoming administrative bottlenecks by spurring laggardly officials, both local and central, to more decisive SRDP action. These achievements have been interpreted by others as signs of his authority and importance in the government administration. He represents a successfully filled gap in the organization of SRDP.

3.42 The District Development Committees have not as yet lived up to their potential. Far from being instruments for involving local people in SRDP areas, they have served largely as a forum for district and provincial officials, and for local MPs. The DDCs do not adequately represent the local community. They might be able to achieve some degree of local representation by including leaders of harambee committees, school and church committees, local work groups, progressive farmer/trader associations, cooperatives, etc., which really are close to local community interests in a way which politicians are not. For local participation to be meaningful, local representatives who have close ties with the local community must be allowed the chance to influence decisions.

3.43 Discussions at DDCs are often guarded and formal, and frequently not associated with issues that are important to SRDP; the principles and objectives of SRDP are not well-known or salient to them, thereby failing to provide them with useful criteria for assessing SRDP projects and project proposals. One development is worthy of consideration in this context. The local project advisory committee being tried out in Migori appears to be fulfilling the role originally envisaged for the DDCs.

3.43 The Ministry of Finance and Planning as overall co-ordinator has been responsible for some considerable achievements despite lacking the administrative and political power to direct the operating Ministries, many of which have been lethargic in fulfilling the role envisaged for them as part of SRDP. One of the problems is the fact that the NRDC (which was set up to provide this authority) does not function very effectively; MFP is responsible for planning and implementation without having effective control over the policies or actions of the operating Ministries. It lacks the flexibility and freedom of movement within Government enjoyed by the Area Coordinators. Yet it has had considerable success in overcoming some of the main bottlenecks of SRDP organisation and control through

the area coordination system, the reporting system, the linkman system, and the maintenance of good donor relationships. It could have had much more success if the existing machinery for the direction of programme, in particular the NRDC, were used more fully.

3.44 So far, MFP has been more concerned with evolving a viable system of SRDP organisation and control than with enforcing SRDP principles and objectives. This has been no mean task since the system had to be developed from scratch, often in the face of outside scepticism. It is understandable, therefore, that MFP has often turned a blind eye to infringements of SRDP principles. This tendency receives additional impetus from constant outside pressure to show visible results on the ground.

3.45 As MFP overcomes the bottlenecks of organisation and control, new bottlenecks emerge. The SRDP areas are beginning to feel the pinch of inadequate planning and implementation resources, which seemed less important before. In particular, SRDP areas are beginning to feel the lack of adequate resources for experimentation rather than on-going operations. MFP is strong on administration, but weak on providing those extra resources crucial to making SRDP experimental.

10. TO WHAT EXTENT HAVE LOCAL COMMUNITIES BEEN ADEQUATELY INVOLVED IN THE PLANNING AND IMPLEMENTATION OF SRDP AND TO WHAT EXTENT HAS THIS INVOLVEMENT BEEN PREMATURE, TIMELY, OR TOO LATE?

3.50 The general conclusion of this evaluation is that local involvement in planning and implementation has been virtually absent. This area has suffered more than most from the over-riding problem of unclear principles, objectives and strategies. Local involvement appeared twice in the original primary objectives of SRDP (active participation, and self-generating rural development), both times vaguely. Little attention has been devoted to the creation of strategies to achieve involvement in the past, and in absence of pressure from the centre, area teams have tended to ignore the objective. Areas where the problem was tackled met with widely varying degrees of success.

3.51 A large part of the full report addresses itself to the problem of how to gain maximal level of involvement for an effective planning system and implementation process. Too often the question asked has been "what can be done to involve people meaningfully without making it impossible to proceed with development? rather than "how much involvement is wanted". An attempt is made in the following remarks to answer the former question.

3.52 Some local involvement is absolutely necessary, in order to avoid local ignorance and alienation, which may cause sabotage of the development work through:

- (a) miscomprehension of the use/maintenance of a new structure;
- (b) suspicion of the motives of the developers;
- (c) opposition to project aims or even minor aspects of them;
- (d) growth of dependent populations who expect that the government will always see what is needful and do it for them, thus defeating the possibility of achieving self-generating development.

A second objective of local involvement, achieved through the training of local leaders and their groups, is the elimination of government planning bottlenecks such as:

- (a) planning with insufficient data;
- (b) failure to anticipate local resistance or support;
- (c) failure to maximise the use of local resources.

3.53 In this context "local people" are defined as resident non-officials together with low-level indigenous field staff at locational and sublocational levels. After much consideration it was decided that the maximum achievement of involvement objectives, with the lowest level of interference with other development objectives occurs when the involvement effort concentrates on the "local interest group". This is a group of local residents or temporary emigrants organised around a common factor, e.g. Harambee committees, school and church committees, local work groups based on age or sex, progressive farmer/trader associations, co-operatives, regional city-based migrant societies, etc. It is believed that these purposeful grass-roots interest clusters have great potential for identification of needs, area-based bottlenecks, strategy feasibility, and even innovative strategy creation. Furthermore they can be identified fairly easily, and drawn into planning and implementation: local field staff (especially Community Development) can be asked to list the groups, and the leaders can be

trained briefly in planning techniques and SRDP principles and objectives, and then brought in for consultation thereafter.

3.54 The greatest effort to fulfil the involvement objective has centred everywhere on informing the people through gigantic introductory barazas in each SRDP area. Except in Kwale, the effects of this were gravely miscalculated; Kwale, beginning later, benefited from the failures of the others. Public announcements should not occur until at least one large project is through the planning phase, and then the conditions under which the local boom is to occur should be stressed, to avoid raising expectations unrealistically. But without publicity how is local involvement to occur in planning? The compromise, based on the frequent finding that informal communication is much less regarded as a commitment than formal communication, is unofficial consultation. As yet, it is only after local leaders have been recruited to training programmes that they are directly informed of the possibilities which may exist, given their hard work; during the preliminary stages the possibility of extraordinary development is not mentioned to them. Unofficial involvement and indirectly that of their groups in planning and allocating their own scarce resources among various semi-local projects should rapidly reduce their aspirations to a realistic level, a further benefit. Thus the malfunctioning of involvement attempts in the past in SRDP is to be remedied by more involvement, not less.

3.55 Self-help involvement in implementation opens both dangers and possibilities of accelerated (and locally generated) development. Self-help is ideally a grass-roots phenomenon, and when divisional-level and higher politicians take over it degenerates into a load of unofficial taxes which stultify local initiative and consume local resources for political ends. SRDP should work on strategies to solve this problem, and some have been suggested in the full report. There is also a tendency for SRDP planners who find a strong self-help movement (for dips, water, etc.) in their area to capitalize on it by taking it over, with or without providing additional support. Not enough attention is paid to whether:

- (i) that project is consonant with SRDP principles and objectives;
- (ii) the local effort is already sufficient to finish the job;
- (iii) the local initiative and enthusiasm to continue self-help efforts or ability to maintain the completed project might be destroyed by government involvement.

3.56 It is recommended that efforts be made to encourage greater involvement in the form of training and consultation of local interest group leaders, facilitated by greater de-centralisation of decision-making to the staff at the Divisional/District level; that only informal consultation should be pursued until the first implementation phase is ready, but thereafter full use of all possible media; and that special consideration should be given to the role of the self-help groups in both SRDP and on-going development.

KAPENGURIA SRDP : AN EVALUATION

by

CAROLYN BARNES

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BACKGROUND INFORMATION

The location of the people, the ethnic composition of the population and geographic factors all need to be accounted for and constantly kept in mind when evaluating SRDP plans and projects in Kapenguria Division.

GEOGRAPHIC FACTORS

Extremes of geographic conditions prevail in the Division: high-potential highlands and low-potential lowlands, divided by steep escarpments. Approximately one-fifth of the Division consists of the fertile highlands, altitude ranging as high as 11,000 feet, with rainfall averaging 50 inches. These higher areas comprise Lelan, Mnagei and to some extent Sook location, which is separated from the others by the lowlands. All of Mnagei and Lelan consists of steep, broken hills and valleys, some valleys lending themselves well for mixed farming. In the higher areas of Mnagei and Lelan, soil erosion and destruction of the water catchment present an ever dangerous possibility of reducing the farming and grazing potential.¹

The lower region, comprising Riwa, Kipkomo and part of Sook location receives approximately 30" of rainfall a year in some areas, but as in the highlands unpredictability of rainfall restricts development potential. In addition evaporation, run-off, and a sandy soil in most parts preclude the possibility of developing agriculture to any great extent. However, the Suam river running along the extreme edge of Riwa presents possibilities for agricultural development with the establishment of an irrigation system. Sook location presents good potential for both cattle and some agriculture² but its isolated position in addition to the general lack of information about the area hinders development of its potential.

The geographic factors impinge on the ultimate achievement of SRDP objectives. Firstly, the division represents two diverse geographic areas, each of which require different strategies. The isolated nature of the lowlands, with at least part of its population being migratory, presents difficulties in improving services and extending knowledge. Secondly, the isolation of the lowlanders has kept them in a state of parochialism, unreceptive to change. Thirdly, the rather harsh conditions mitigate against systematic collection of information, thus little factual information exists on which strategies can be based.

POPULATION

The people of the division number 46,075, according to the 1969 Census. One half of these reside in the two highland locations of Lelan and Mnagei, the latter containing slightly over one-third of the entire divisional population. In these two highlands locations it is estimated that about one-third of the population are non-Pokot immigrants.³

The inhabitants of the highlands (herein referring to Lelan and Mnagei) seem more inclined to accept changes than the lowlanders, and in the highlands the immigrants more ^{than the Pokot}. Care must be taken to make certain that the opportunity to derive benefits from the SRDP programme are distributed in an equitable matter among the ethnic groups in the highlands. Currently most officers are abiding by this, but with pressure to get projects on the ground they should never lose sight of this goal. Attention should also be given to ensure that the lowlanders, such as around Cheperaria and Kongelai, are given ample opportunity to be drawn into projects such as maize demonstration plots and women's clubs. Moreover, special projects must be designed to meet the needs of the pastoral lowlanders. If constant care does not occur, the programme will benefit only a certain portion of the peoples of Kapenguria Division; this would violate the objectives of SRDP which aim at a more equitable distribution of income and welfare generating activities.

PLANNING PROCEDURE ⁴

Kapenguria Division was selected in March 1969 as one of the six first-phase SRDP areas, representing a "pastoral" area. This decision was announced at a West Pokot District Development Committee meeting in late March by the Provincial Planning Officer. The following month the District staff were "asked to prepare detailed and costed proposals for each of the locations". They brought these forth in rather rough form at a meeting on 7th May.⁵ The presented proposals were then reviewed by the PPO, Provincial Rural Development Adviser, and an agricultural economist on loan from the Ministry of Agriculture.

In mid-July a draft plan providing an explanation of the proposed projects was submitted to Nairobi by the PPO and detailed appendices were sent in the following weeks. By September the Draft Programme was completed and during the next two months comments were forthcoming on the Draft

Programme, leading to its slight amendment. Then the Draft Programme was shortened into an Outline Programme by the NRDC Secretariat staff, and it was this brief Outline Programme which was approved by the NRDC in January 1970.⁶

The Outline Programme closely corresponds to the proposals set forth in the Draft Programme, with minor changes in sequencing. But the interrelationship between the crop production - trade programme slated for the highlands and the programme to develop cattle sales in the lowlands appears only in the Outline Programme. The description and evaluation herein refers to the Outline Programme since it was the one officially approved for the District, though the Draft Programme is regarded by Headquarters as of equal status and importance in providing the details for the Outline.

The involvement of the West Pokot District Development Committee in the effective planning process was marginal. As the PPO stated, "Original ideas for projects were put up by members of the West Pokot District Development Committee. In the process of preparation these ideas have been drastically cut short, reduced, amended, etc. until in some cases they no longer bear much resemblance to their original".⁷ But while the PPO was preparing various facets of the plan, a feedback system with members of the WPDDC was maintained. The key role played by the PPO and the secondary role of the WPPC must be assessed in light of the demands placed upon the District staff to produce detailed plans within a two week period. Given such little time for careful, well-thought-out ideas in the light of SRDP principles and objectives, their proposals were little more than a non-integrated list of projects to be pursued. This thrust the burden of the planning onto the PPO who was pressed by Headquarters for "quick action".⁸

LIVESTOCK MARKETING AND CROP PRODUCTION

THE PLAN ⁹

The plan for the Division rests primarily on increasing the sale of livestock from the lower areas, and increasing crop production, dairying and sheep keeping in the upper zone. It was hoped that increased sale of stock in the lowlands to a national market would lead to greater opportunity for marketing foodstuffs from the higher areas in the low areas. The

incentive for the lowlanders was to be the provision of better stock marketing facilities, viewed as allowing "a greater off-take of animals for the national market, if it is accompanied by a reliable inflow of foodstuffs from the higher areas, for many of the lowland people do not enjoy a surplus of stock and would fall below subsistence level if they sold stock in any quantity. The incentive to improved animal husbandry lies on successful stock sales and a reliable alternative food supply from the higher zone. In turn, the incentive to better agricultural production lies in a steady market in the lowlands".¹⁰ It was also pointed out it was important for traders to be located in the lowlands.

To help facilitate increased marketing of cattle the Programme calls for the acquisition of a large holding ground/sale yard (Mwisho Farm), reorganizing existing holding grounds and sale yards and improving facilities on each, and the establishment of new holding grounds. In addition an intensive effort to organize regular livestock markets in collaboration with KMC buying agents was to take place.

Increased crop production was to be encouraged by a concerted effort in establishing farm demonstration plots, promoting soil conservation, intensified extension work, and extending and improving the existing tractor hire services. These activities were phased so that the effort would be concentrated in one location at a time. The crop(s) to be promoted and the organization of the project were to vary according to the conditions prevailing in each location.

EVALUATION OF THE PLAN

The strategy is based on the strong assumption that better market facilities for cattle coupled with the availability of upland food products will automatically lead to the lowland Pokot selling more cattle. No systematically collected information exists to validate this assumption.

The problem is that very little factual information exists about the lowlanders, such as the average family size, the size of the herd a family needs for subsistence, the number of families entirely dependent upon cattle for their subsistence, the number who have land for arable cropping, consumer and food items desired, the existing informal marketing system of food products etc. It is generally known that cattle play very significant roles in Pokot society, e.g. ritual purposes, to create social support, and as legal tender,¹¹ which tend to mitigate against the selling of them.

The Programme calls for a survey to be conducted during the preparatory stages: "a sociological survey in the lower area of the social structure and values as a prelude to determining patterns of livestock husbandry for the future". But this was never undertaken. Until fact-finding is carried out in the lowlands and the people's views of needed projects are ascertained, the plans for the region and the projects implemented are based on assumed outcomes.

The basic minimum required research on which planning could be based is twofold. Firstly, information on the community leadership structure should be obtained so that a viable plan to introduce innovations through and by them can be devised. As shown in the Comilla Project in East Pakistan¹² and serving as a basis for proposed modern ranching in Sukumaland,¹³ in more traditional communities introduction of innovations can occur at an accelerated rate if community acceptance is gained. A primary explanation for this is that traditional structure usually does not sanction individual achievement unless the members of the group perceive that they can benefit.¹⁴ Secondly, the felt needs of the lowland Pokot must be learned, say from their formal and informal community leaders. That is, what do they perceive as the major problems of their area? Problems related to health, education, subsistence, inadequate infrastructure, social or economic conditions? Then the people must be involved in seeking solution(s) to their problems. (Here enters SRDP and a viable programme for the lowlands). There must be a felt need for the people to be motivated to adopt a new behavioural pattern and to accept a new infrastructure. If this procedure is followed, it holds great possibilities for designing a programme which could serve as a major breakthrough in reaching the lowland Pokot.

The possibility of increased selling of food crops on the national market is dismissed in the Programme. The justification given for focusing on increasing intra-district trade is that agricultural produce grown in neighbouring Trans Nzoia "enjoys lower opportunity costs in crop production. Thus there is limited scope for national marketing of agricultural produce from the higher areas of Kapenguria". This matter should have been investigated more thoroughly for although transport costs are higher still an adequate profit margin could make the growing of certain crops worthwhile.

LIVESTOCK MARKETING PROJECT

The details of the livestock marketing project based on a system of sale yards and holding grounds were worked out by the local officers. The new system was put into operation in June 1972, although some of the holding grounds were not yet completely equipped. Therefore at this time I can only report on the reasons for the system, its organization, and intended outcome in addition to the reasons for the delayed completion of the holding grounds.

Under the previous system inoculation and sale yards were under the control of the County Council. In the past, individuals wishing to sell cattle had to have their cattle inoculated 21 days prior to an auction. The owner paid a Shs:2/25 inoculation fee per animal. Then he was obliged to keep the inoculated cattle in isolation during the 21 day inoculation period, although this practice was seldom followed. The inoculation of cattle in time for sale rested on ample notice being given of auctions, and being able to get to the proper officer for the inoculation. When the cattle were brought forth at an auction, if the owner did not receive a bid which he regarded as a fair price, then he would withdraw his cattle from the sale. Thus there were many factors which led to insecurity in marketing one's cattle. The new system was devised to rectify these things and, moreover, to allow for continuous local selling of cattle. Formerly, livestock marketing has been hindered by closure of the market for as much as a year, due to foot and mouth disease.

Under the newly devised system, if a quarantine exists, auctions can still take place and the cattle will remain on the holding grounds. Currently a rotational procedure will ensure that sales are held at each yard at a 3-month interval.

The livestock marketing project covers more than just the SRDP area. The intention is to funnel livestock coming from the Turkana region as well as inside West Pokot District through a series of holding grounds. From the sale yards (a few of the holding grounds have their own sale yards) cattle are moved on hoof or lorry immediately to the nearest holding ground. As the cattle proceed through the series of holding grounds they are inoculated, dipped, sent through spray races and grazed. The holding ground fees are paid by the traders, Shs:3/- per head per month in addition to a Shs:2/25 inoculation fee per head.

Establishment of the newly devised livestock marketing system has been hindered in some instances by lack of support from the local people. At times requests from West Pokot District Development Committee to set aside land for extending the holding grounds system were not fully granted by the County Council. Another time the County Council allocation was rejected by the people in that region: for the Pkopoch holding ground the County Council agreed to grant 1700 acres but the local people would agree only to give 700 of these acres. When a fresh attempt was made ten months later to enlarge the same holding grounds, the request "sparked off sharp reaction from the local men who were politically motivated".¹⁵

The issue of control over sale yards and inoculation has also caused difficulty. In the past sale yards and inoculation fell under the control of the County Council which derived revenue from these activities. When the Livestock Marketing Officer approached the County Council about taking over some of these responsibilities, he "received a very insulting reply. The Agricultural Department complained that it had been blamed profusively by the County Council".¹⁶

The County Council continues to be responsible for running the sale yards and collects a cess of Shs:10/- per head of cattle. But, because of the poor financial state of the County Council almost none of this money is channelled into maintenance of or new building on sale yards. Overall, the sale yards appear in bad condition.

Completion of the holding grounds has also been hindered by delays in obtaining necessary staff, labourers, equipment, and a lorry. Requests for such were made early in 1971 but action on the requests was slow.

EVALUATION OF THE LIVESTOCK MARKETING PROJECT

The local staff has carried out the establishment of the new holding grounds system in a highly commendable fashion.

Although various difficulties have been encountered, none so far has been a major, insurmountable barrier. It would be hoped, though, that requests to Headquarters for approval of projects and issuance of AIFs would receive more immediate attention, or that the reasons for delay would be conveyed to the district officer in charge. The difficulties which have arisen from lack of support from some of the local people should be regarded

as expected since the project's request for control of two revenue-deriving County Council activities and for land conflicts with vested interests. It is understandable that the local people are unwilling to have large tracts of land taken away from their normal pattern of useage, especially if the people are not convinced that the proposed utilization of the land would bring them any benefits. But if the holding grounds are not large enough, and their carrying-capacity limited, they will not be fully effective if a quarantine exists for an extended period of time.

Under the newly initiated system the cattle owners reap minimal benefits from the holding grounds. That is, they are not required to have their cattle inoculated 21 days prior to the sale and to pay the Shs:2/50 inoculation fee; they can sell cattle in times of quarantine; and they can use the spray or dip facilities on the holding grounds at any time. On the other hand, during the past two auctions, the traders offered a lower price for the cattle arguing that they had to pay the holding ground fee,¹⁷ thus shifting the holding ground fees payment onto the cattle owners. From the viewpoint of the cattle owners, do the benefits outweigh the lower price and loss of land? Undoubtedly the newly devised system improves upon the former method but the degree to which it will facilitate substantial increase in sales is questionable.

As agreed by the PPO and Livestock Officer, the time may come when restructuring will be desired by the people: that the people pay the holding ground fees, fatten their cattle on the holding grounds and then are able to sell the cattle at a higher price. Or, as the D.C. and the former Project Advisor suggest, establishment of a meat buyers co-operative among the potential sellers could provide greater returns to the owners. At this stage, however, the principle of flexibility should be adhered to and alternatives kept in mind. It is recommended that the cattle owners views of the present system be monitored to learn what modifications or changes might bring more beneficial returns to the owner and which might stimulate increased selling of cattle.

Much attention has been given to the livestock marketing project but the Programme-proposed complementary project in the lowlands has received little consideration: no action has been taken nor do plans appear to have been made for the coming financial year to encourage produce traders to increase their activities in the lowlands. Although the results are unpredictable an effort should be made on a small scale to have a trader or traders around the sale yards on auction days and a record should be kept

of the items sold and the total amount of money spent. But the former Project Advisor reports that the local entrepreneurs are unwilling to take up trading activities in the lowlands because they feel that the County Council traders' fee is too high. It is recommended that an investigation be carried out on the constraints to produce trading activities in the lowlands and if possible these be remedied.

CROP PRODUCTION PROJECT

A maize demonstration/trial project was designed by the local agricultural staff. The SRDP Crop Officer's initial aim was to select the "poorer" farmers who had not adopted the practice as demonstration farmers. But he encountered an unwillingness on the part of these farmers to offer land for a plot. Twenty-eight farmers were eventually selected: 2 from Lelan; 8 from Mnagei; 5 from Riwa; 8 from Kipkomo; and 5 from Sook. Three Katumani demonstration plots were planned for Kongelai area (Riwa location) and hybrids were planted on the other plots. The project which began during this season includes the holding of field days.

Both the number of farmers and the acreage of each was determined by the amount of funds released from M.O.A. Launching of the project was hindered by MOA's initial lack of response to the proposal and then by a delay in the release of funds. Only because of the lateness of the rains was the maize planting able to occur this season.

EVALUATION OF CROP PRODUCTION PROJECT.

No control plots i.e. growing hybrid maize without fertilizer, were made because of the limited funds available for the entire project. This is a progressive step in the entire approach to demonstration plots since both agricultural staff and demonstration farmers frequently complain about the uselessness of attending to such control plots. Land, labour and time are needlessly spent on these control plots when the utility and benefits on the full-demonstration plot can be assessed in relation to the farmer's previous practices, and in relation to the results of his neighbours who have not adopted the recommended practice.

The Crops Officer is to be highly commended for allocating demonstration plots in all of the locations. It is regrettable that in Kongolei where three Katumani plots were planned, only on one was land prepared in time for planting and that on this plot rats and squirrels have destroyed most of the crop. Renewed efforts should be made for this area during the next season, and instructions should be given to farmers on protective measures against vermin.

At the end of this season the staff should ensure that all the farmers in each area, e.g. those attending field days, wanting to plant hybrid or Katumani maize will have easy access to the necessary input supplies. Moreover, it is advised that the extension staff should have a list of the farmers in his area planning to plant improved seed during the next season. These farmers could be called together for group instruction before each stage, e.g. planting, top dressing, to reinforce the proper procedures to be followed. A list of new adopters would also assist in evaluating the effectiveness of the demonstration plots.

Lessons should be learned from this first SRDP maize demonstration project and the project should be continued, with modifications where necessary, during another season. Although plans could be made for the introduction of demonstration plots for other types of crops, the strategy devised for the maize project should be proven successful before the efforts of the staff are diversified.

OTHER PROJECTS: COMMUNITY DEVELOPMENT,
LAND ADJUDICATION AND ROADS

Community Development: Women's Clubs and Cattle Dips

The Outline Programme stresses the need for the co-operation and support of the people: "at each stage, the Pokot people will be fully associated with and involved in the programme by discussion, education and training and by self-help assistance to suitable projects such as rural dairies dips ...". Stages 3, 4, and 5 call for establishment of cattle dips.

With the delay in the release of SRDP funds, community development work, needing little or no special input of funds, provided the initial thrust beginning in mid-1971. Construction of cattle dips and organizing women's groups, (which were never mentioned in the Programme) became the focal point of the SRDP community development program.

In July 1971 a course for women leaders was attended by twenty-eight. Follow-up visits were made to these women and club applications were received. When an evaluation seminar was held in January 1972, 16 women attended, revealing the declining interest which was currently evident in the number of women attending club meetings. However, at a Divisional Women's Seminar in August, 1972 renewed interest was displayed by the approximately seventy women attending.

These women's groups fall under the auspices of the Community Development Officer (SRDP) but the actual organization and co-ordination of their activities is the responsibility of a local woman paid by the County Council. Fifteen clubs exist, each having approximately twenty members. Except for the group in Chepararia, the others are located in the highlands - 11 in Mnagei and 3 in Lelan location. In addition to hearing lectures on hygiene, nutrition and agricultural matters, these clubs make traditional items to sell, e.g. baskets, necklaces. They are planning to erect a duka themselves on a market plot in Makutano (the largest market centre) which they have been allotted by the County Council. They intend to stock traditional items to sell to tourists; they wish to secure a sewing machine to make items to sell to the local people.

Their traditional items will find a limited market in the district and no attempt has been made at this time to find a steady market in a tourist centre, e.g. Nairobi. A most crucial aspect is that the enthusiasm of the women should be supported and directed by sound financial advice. If the activities of even a few women can be directed into profitable channels, it could provide an incentive for others to join the clubs and for new clubs to form for the degree of commitment to a group is based on the expected benefits derived from participation. Once membership is regarded as reaping a financial reward, the long term benefits, i.e. educative aspects, may be pursued without a substantial loss of participation.

The clubs organized by local initiative are providing, and can provide at a more rapid rate, a channel for answering and solving felt needs.¹⁸ Each club decides its own agenda: for example, if the women of a group want information on establishing vegetable gardens, they request the District Agricultural Officer to address their group. The women and district officers feel that development of their area will proceed at a rapid pace now that the women are determined to bring this about. This zeal, which should not be underestimated, should be supported by providing specialist advice when needed so that the activities can proceed along viable paths. Therefore, at this time, it is strongly recommended that a specialist be asked to provide the clubs with sound financial guidance.

Cattle Dips

The Programme calls for focusing dip construction, and accompanying water development where needed, on Mnagei location during Stage 3, then on Lelan and the two lowland locations of Riwa and Kipkomo in Stage 4, and continuation of dip construction in the lowland locations branching into Sook in Stage 5.

The activity on the ground focused on dips which had been already planned for the district rather than tackling an entirely new set under SRDP. Three dips which had been begun previous to SRDP but whose construction had lapsed were incorporated into the programme. CARE financing had been slated for these dips; this aid was extended to two other dips. Activity was suspended on those dips planned before SRDP which were to be entirely self-help financed but not eventually cited for CARE financing.

Effectiveness of the dips, the frequency of usage, and the extent to which more are needed are points debated by the local staff, indicating that these questions need further attention. In addition the extent of knowledge possessed by the people about the usefulness of effectively-run dips is unknown although it is known that a major concern of the people in the lowlands as well as the highlands is to keep their cattle free from disease. If the lowlanders indicate their desire for dips to be built, experimentation in restructuring of self-help funds, labour, dip fees etc. might eventually be entertained.

LAND ADJUDICATION

In the early 1960s when land adjudication originally began in the district, there was so much resistance by the Pokot, out of fear of the legal rights to land holding which would be gained by non-Pokot, that the project had to be abandoned. But when the Programme was being drawn up, land adjudication was viewed as a crucial element which needed to be tackled again as a "first prerequisite for organizing farming". In the phasing, land adjudication was to be planned and arranged for Lelan and Mnagei, both highland locations, in the first stage and to commence in the second stage. Later registration of group titles was to begin in the lower areas after a sociological survey was carried out.

However, land adjudication is considered as a supportive SRDP project since no SRDP funds are provided for staff, equipment, etc.

Land adjudication staff were posted to Kapenguria in July 1971. Since that time, sub-locational boundaries were marked and adjudication has been completed in two sub-locations of Mnagei - Kerenget and Siyoi; both of these regions have a large immigrant population. As of 1 June, 1972 approximately 1,000 plots had been adjudicated. Only 36 cases were taken before the Land Committee, of which 12 have gone on for appeal cases.

During the next financial year, adjudication will commence in Charlet and Kongalai. If more staff is provided, the adjudication will also begin in the sub-locations of Lelan. The Land Adjudication Officer reports many areas in the district are requesting adjudication but the rate of progress is hampered by shortage of survey equipment, number of staff and transport for staff.

Land adjudication exemplifies a project which when originally planned was viewed as a "problem project", i.e. one which would be difficult to implement, because of the difficulties in obtaining support from the people. But through a carefully initiated campaign of discussing the issue with the people and by using an argument found as reasonable by the people, support was gradually forthcoming. Thus, after an initial thrust, the project has proceeded well without any major hindrances and extra inputs.

ROADS

The need for a good road system to facilitate communication and transportation receives emphasis in the Draft Programme and is reiterated in the Outline Programme. Firstly, road reclassification needed to be carried out by MOW. Then improvement of primary and secondary road network was cited for MOW to carry out. Stage 5 called for MOW gradually taking over and improving the minor road system and Stage 6 designated subsequent classification, take over, and improvement of additional roads.

The road project was one of the first to begin in Kapenguria. With existing maintenance votes, the crew worked on lightly grading tracks. Much of the work so far has been on repair, grading and straightening of existing roads. Currently major work is being carried out on the Cheperaria - Chepkopegh - Ptoyo road (46 miles) which runs through the heart of lowland Kipkomo and Sook locations. Previously a "track", in the reclassification process this was listed as a secondary road.

Both self-help labour and hired labour have been used at various stages. Due to absence of machinery and the speed and successful work demonstrated by labourers on the Cheperaria-Chepkopegh-Ptoyo road, recommendations for expanding the hired labour force were made by the Sub-District Development Committee (SRDP).

This attention towards a hired labour force instead of machinery on the roads is commendable and should be expanded wherever possible. (See D-29 for information on the Migori roads project). Although this opportunity for income is of short duration, it is better than having machinery carry out all the work, and may provide work experience beneficial to finding employment elsewhere in the future. Much of the road work is being carried out in areas of low population density where organization of self-help labour would be almost impossible. When feasible, though, self-help labour should be used; otherwise the attitude that self-help should not be required on SRDP projects, since so much money is available from Government for development of Kapenguria Division, will become even stronger and more wide-spread.

From conversations in the district and written reports, at least twice news has reached district headquarters that the local Pokot were threatening to disrupt the work of the road crew. The April-May Monthly Report states that it was alleged that "a group in Sock had slaughtered goats on the road (Chepereria to Ptoyo) to impede its progress". There have also been rumours of Pokot planning to attack the road crew. The D.C. reports that the latter emanates from the D.O. and other staff members in the area not informing the people of the reasons for the machines commencing to clear the bush.

This failure to inform the people of forthcoming road building in their area only leads to confirming their suspicion; the people in the more extreme parts of the district believe that the roads are being built so that the APs or GSU can better patrol cattle raiding. They are not convinced that the roads will bring positive benefits to them, and this view may be justifiable.

It is highly recommended that plans for using the newly constructed roads should be made, e.g. mobile health units, traders, etc. to bring positive benefits to areas newly opened up. Implementation should occur soon after a new section of a road is completed. The purpose here is to help counter the fears of the lowlanders that the roads are being constructed to enable the police to better control cattle raiding, etc. Secondly, care must be taken by the officers to ensure that prior to commencing road construction in any given area the people of that area are informed of the purpose, benefits, etc.

COMMENTS IN REGARD TO SRDP PRINCIPLES AND SOME
EVALUATION TERMS OF REFERENCE

Experimental Nature

At this stage it is difficult to label any project in the division as experimental. If markets are established near the sale yards and if they perform their hoped-for function, then this could be experimental. Or, if the women's clubs are given additional assistance and their scope enlarged this would be experimental for such an area. It must be remembered that it is through fact-finding and monitoring that a project can be classified as experimental.

At this time, a positive aspect of the programme is showing the initiative of officers in such an area. As a key officer in the district pointed out, up to the point when support and attention were given by National Government to the launching of SRDP in Kapenguria, the officers were discouraged from making proposals to Headquarters since they were usually ignored or otherwise turned down. (After all Kapenguria was considered a second class area.) Now project proposals, requests for supplies, equipment etc are receiving attention in Nairobi and the officers most frequently receive positive replies since special funds are available for Kapenguria. Thus, SRDP has brought a moral uplift to the Officers who feel that their efforts are no longer being thwarted by Central Government. The programme is showing what local officers can do if given the proper backing, e.g. financial, from Government.

~~Progress on~~ SRDP project has not been impeded through lack of initiative by the staff but because of the "normal" bottlenecks in Central Government, e.g. approval of a project, receiving AIEs, receiving supplies. Yet the latter has not hampered the faith of the officers since they know that Kapenguria, being a SRDP area, is to receive special attention to enable the Division to develop.

Replicability

The Project with the greatest potential for replication is the women's clubs for these may prove to be a viable channel through which innovations - new ideas - are accepted and adopted in less developed regions of the country. If a strategy can be devised for a breakthrough in developing the pastoral area, it would ~~have great~~ have great potential for replication.

Unless projects receive careful documentation and monitoring none will be capable of replication.

Existing Machinery of Government

One of the SRDP principles is:

To utilise existing resources of staff
and finance as far as possible.

In an area like Kapenguria where the staff was sparse on the ground and where the ground is difficult to traverse, additional staff members, along with their supportive staff, were necessary to launch and direct SRDP projects. More staff meant the need for additional housing and offices; these are in the process of being built.

An expatriate Project Adviser working in the District has supported what is primarily a local effort and has provided links with people in high positions in Nairobi. The presence of a Project Adviser has not been detrimental to local initiative as in areas with advisory teams. It might be hoped that the Project Adviser and the Area Co-ordinator might assist the SRDP staff in learning the use of problem solving techniques (as outlined in Q1 Part 3 in our/overall report) and devising projects to meet SRDP principles and objectives.

Research and Evaluation

As has been pointed out elsewhere, no major systematic collection of information has occurred. Fact finding must be built into the preparation stages of planning projects and continuous recording of 'treatments' must be made by the local officers.

In carrying out this evaluation exercise, opinions on evaluation were expressed, with which I concur. The PFO expressed the view that evaluation and its emanating recommendations should be accompanied by persons who are willing to help and advise further on implementing the recommendations. Scepticism was expressed by the PFO, DC and DO (former Area Co-Ordinator) about the soundness of an evaluation exercise such as this if it is only to be carried out once a year by evaluators who spend such a short time in the district. Yet it must be remembered that local officers once trained in fact-finding and monitoring can be of great assistance to the evaluators.

In planning the SRDP, was the unexploited potential for development of each area adequately assessed? Were the probable constraints preventing this potential for being maximally exploited adequately assessed?

The answer to these has to be qualified: in some cases "yes". Examples of proper assessment of the development potential appearing in the Draft Programme are agricultural training in regard to a Farmer's Training Centre, irrigation, and the emphasis upon road construction.

The Draft Programme proposes that to increase cattle trading and circulation of money in the range areas the strategy to be adopted is a system of holding grounds, sale yards and stock routes. Pointing out previous difficulties in establishing group ranches the Draft Programme concludes this would be the inappropriate strategy. A system whereby cattle auctions may be held regularly even in times of quarantine will undoubtedly increase cattle trade. But, to what extent? The constraints preventing this increase in selling of cattle and the circulation of money in the lowlands were not adequately assessed due to a lack of facts regarding the cattle owners.

Another illustration of inadequate assessment appears in the assumption that increased crop production should be geared towards an intradistrict market. The possibilities for expanding the external marketing of crops was improperly dismissed.

To what extent are SRDP projects integrated or co-ordinated with ongoing programmes and to what extent have on-going programmes been labelled SRDP?

All SRDP projects are well integrated and co-ordinated with ongoing programmes, primarily because they focus on development per se rather than on developing replicable new approaches.

All projects in the Division have been labelled SRDP purposively by the officers to gain support and enthusiasm for the entire SRDP programme.

This has led the officers and local people to regard SRDP projects as regular development projects designed along "normal" patterns, thus leading to a disregard for SRDP principles.

To what extent are the strategies and approaches to accelerate rural development in SRDP areas newer and more effective than those which they replace or supersede?

Since the major projects in the area have just begun to function, it is impossible to assess if the strategy adopted is going to affect the expected outcome, thus rendering it more effective than those they replace. At this stage, though, it appears that the holding grounds project in itself is well-organised and will solve some problems. The maize demonstration plots appear headed in the right direction. So far the most success has been apparent in the women's clubs; they seem to provide an effective channel for accelerating development.

The availability of a grammar book to teach adults to read and write the Pokot language seems to be a boost to adult education classes. Again, this project has just begun so it is impossible to evaluate the success.

Are the implementation stages effective enough to try out these new strategies?

The sequencing given in the Programme focuses primarily on the type of projects and the region where each was to occur. Given this general framework the local staff has had to devise the implementation stages. The former Project Adviser assisted some officers in working through the various implementation stages for this financial year's projects. More systematic planning for implementation as recommended in the overall report would be quite beneficial.

How effective has the role of the Area Co-ordinator, District Development Committees, and the MFP in its capacity of overall co-ordinator been?

Until quite recently the role of Area Co-ordinator has been hindered by his dual position as District Officer. This has limited the amount of time he has been able to devote to SRDP activities. Moreover, when he speaks to the people it means that he carries a dual image, that of District Officer transmitting messages of a law enforcer and placing him among the higher echelon local government officers. These have been corrected with the recent posting of a full-time Area Co-ordinator.

The effectiveness of the District Development Committee is undercut by the SRDP sub-committee, which has no local representation. This sub-committee performs well as a co-ordinator between the various department.

To what extent have local communities been adequately involved in the planning and implementation of SRDP and to what extent has this involvement been premature, timely or too late?

In the drawing up of the Draft Programme, some of the formal community leaders' views were sought, and in the initial stages the officers held several barazas informing people of SRDP, its projects, and asking for their comments. The latter appears to have played a positive role in leading to the acceptance of land adjudication.

Currently, though, community participation is seriously lacking. At times the people of a given area are not even informed of project implementation in their area, as explained in the section on roads. At other times, after plans are made, the community is informed through formal meetings at which a few questions are permitted whereby the officers justify their plans but modification is not considered. This procedure must be corrected. Involvement of the people should begin in the planning of projects. (The report on Community Participation shows the various stages and levels where this should occur). As proposed above in the section on Livestock Marketing and Crop Production - The Evaluation of the Plan, for a major breakthrough to occur among the lowlanders, community participation in identifying needed projects is essential.

It appears that continual effort should be made to convince the County Council of the benefits of the SRDP projects. Difficulty has arisen on some issues, such as land adjudication, because the formal leaders would be adversely affected. When this occurs, and if the people support the SRDP project, then the formal leaders should be ignored. But, in other cases, the support of the formal leaders may assist in gaining the support of the wananchi.

RECOMMENDATIONS

A. General

1. Constant care be maintained that the opportunity to derive benefits from the SRDP programme be distributed in an equitable manner among the ethnic groups in the highlands and among the highlanders and lowlanders.
2. Fact-finding be conducted in the lowlands and the peoples' views of needed projects ascertained.
3. Continual consultation with the people be made to ensure support from the local leaders and people.
4. That the local staff receive training in data collection and analyses to facilitate monitoring of projects and planning of new projects.

B. Specific Recommendations

1. Investigate constraints to produce traders engaging in trading activities in the lowlands. If possible, remedy situation. Encourage produce trade around sale yards.
2. A careful assessment be made of the cattle owners reaction to the present system with a view to learning what modifications or changes might bring more beneficial returns to the owner and which might stimulate increased selling of cattle.
3. The agricultural staff should ensure that input supplies for hybrid or Katumani maize are available for next season. A list of farmers planning to plant hybrid or Katumani maize should be made to help assess the effectiveness of the season's demonstration plots. Group instruction next season should occur before each stage, e.g. planting, to reinforce the proper procedure to be followed. Lessons learned from the first maize demonstration project - SRDP should be built into the continuation of the project. The strategy devised for the maize project should be proven successful before the staff undertakes introduction of demonstration plots for other types of crops.
4. An experimental approach should be given to the women's groups. An adviser needs to provide them sound financial guidance, e.g. market possibilities for traditional items.

B. Specific Recommendations

5. Assessment be carried out on the effectiveness and efficiency of cattle dips and the need for additional dips.

6. That the district staff makes sure that prior to commencing road construction in any given area the people of that area are informed of the purpose, benefits etc of the road building.

Plans for using the newly constructed roads be made, e.g.

mobile health units, traders, etc and implemented immediately after a section is completed. The purpose here is to help counter the fears of the people in the lower areas that the roads are being constructed to enable the police to better control cattle raiding, etc. The people must be shown that the roads will bring a positive benefit to them.

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14. Lang, Op. Cit.
15. Account given in Monthly Report for May 1971 and March 1971.
16. Monthly Report for February 1972
17. Personal communication, Livestock Marketing Officer, Kapenguria, 15 September, 1972.
18. See J. Kariuki, "Report on Pre-Course Interviewing in Mbere, Tetu and Kapenguria SRDP", Programme for Better Family Living, (forthcoming) for more details on the women's activities and club problems.

B - 1

THE KWALE SRDP EVALUATION

by

G.C.M. Mutiso

- Part I Summary Recommendations
- Part II Policy Discussion
- A. SRDP Kwale: General
 - B. Local Level Leadership and Administration
 - C. Family Homesteads
 - D. Roads
 - E. Kikoneni Water Project
 - F. Land Adjudication
 - G. Education
 - H. Mwereni Ranch
 - I. 1. Agriculture General
 2. Agricultural Supervised Credit -
 Ramisi Sugar Factory.
 - J. Expatriates and Kwale SRDP
- Part III Interview Data
- A. Demographic Data
 - B. Technology and Innovation
 - C. Access to Information
 - D. Education
 - E. Structure of Occupations
 - F. Labor Patterns
 - G. Farming Practices
 - H. Ethnicity

SUMMARY RECOMMENDATIONS

1. SRDP Kwale General
 - a) Departments should assign SRDP duties to staff already familiar with the area whenever possible as Agriculture has done.
 - b) The process for spending budgeted money by Provincial or District level officers should be accelerated.

2. Local Level Leadership and Administration
 - a) Chiefs and sub-chiefs should be involved in SRDP work by impressing on them the utility of development activities outside the office.
 - b) New chiefs/sub-chiefs should be recruited from the younger, more development-oriented wazee-vijana category (as discussed). They should be from the indigenous groups. Expansion of the number of sub-chiefs is desirable.
 - c) The new committees should be encouraged at the expense of the traditional village council, which probably will continue to handle personal life matters. These committees should be brought together under an SRDP Development Committee.
 - d) The Area Co-ordinator should use the SRDP Development Committee in mobilizational work which will be basically agricultural. This presumes his greater familiarization with the area and rejection of the command model of D.O. behaviour.
 - e) Any future planned SRDP courses should not only include work on agricultural technology but also social technology skills for the wazee-vijana, chiefs, sub-chiefs and all field officers involved in SRDP.

3. Family Homesteads
 - a) Ways should be found for extending credit for building homesteads on private plots away from the villages. The land should be used as collateral.
 - b) District level officers should be allowed to change the phasing of projects to facilitate adjustment to ethnic, political agitation which tends to become a serious bottleneck. The specific examples are collapsing of Kikoneni water project phases; initiating the road projects and dips in Mwereni before organizing the ranch; and introducing cattle improvement techniques.

4. Roads
 - a) Work on sugar roads should be carried out first since they will be needed for marketing of this years sugar crop.
 - b) All classified minor and primary roads construction phasing should be changed to focus first on the minor roads. These will link with the completed A-14.
 - c) Self-help communal labor techniques should be introduced at location/sublocation level to construct farm roads.

5. Kikoneni Water Project
 - a) Greater use should be made of self-help labor for non-skilled aspects of the construction.
 - b) Collapse Phases I, II, and III together so as to diffuse the inter-ethnic and intra-ethnic rivalry and to create a visible success.
 - c) Speed up materials supply (local material substitution).

6. Land Adjudication
 - a) Given the political sensitivity of land holding, adjudication work needs positive political inputs from the M.Ps, D.C., P.C. and District Councillors. This should be stressed to these persons by the D.C.
 - b) In conjunction with the Group Ranches Unit of the Ministry of Lands and Settlement, all the District level officers ought to plan the adjudication of Mwereni Ranch to take into account membership problems raised below.
 - c) There appears to be no case for land consolidation since the pieces are not terribly small; probably they will be passed on to sons in another generation.

7. Education
 - a) Serious reconsideration of the plan to include a mass literacy campaign related to the agricultural programs is advocated. This may be a worthwhile experimental addition to rural development. I.D.S. and I.A.S. could act as consultants in developing a completely new program suited to Kwale.
 - b) Drastic government action to encourage parents to retain their children in school is highly recommended. It may have to entail forced collection of fees since parents 'obey the law' by sending children to school but refuse to pay fees even when they are able to do so.

- c) Relegation of Mandarasa to the realm of personal life and the use of self-help for the construction and maintenance of Mandarasa schools should be the future policy. This should be a useful way of introducing self-help techniques to the indigenous population.

8. Mwereni Ranch

- a) Land adjudication of the area be carried out.
- b) Membership (stock quota) be allocated equally to every person who can show land rights in Mwereni Location.
- c) Stock allowed in the ranch be strictly as per stock quota. This will force cattle owners (the minority) to either sell their excess stock or negotiate extra grazing quota from clansmen/others. It will also ensure that cattle-users have tradeoffs with cattle owners.
- d) Subsistence agricultural areas either be specifically adjudicated within the ranch or outside it. It is not adequate to leave it hazy as to whether subsistence agriculture will be allowed in the ranch. The proposal in the Plan for settlement in Jombo Forest does not seem to be known even at the District level. The Jombo forest area is rapidly being filled with non-Duruma migrants.
- e) It is imperative that home sites be specified during adjudication. It may be worthwhile to plan villages rather than scattered homesteads since most of the land will be open ranch.

9. Agriculture-General

SRDP model farmers should be selected to reflect ethnic variation, farm size, age and sex and not to just reflect the emergent progressive leadership. Indeed the challenge is to help the less progressive and not just the progressive farmers.

10. Agricultural Supervised Credit - Ramisi Sugar Factory

A supervised sugar credit system tied to the Ramisi factory with proportional participation from the assorted ethnic groups should be started.

POLICY DISCUSSION

SRDP KWALE: GENERAL

It is difficult to situate SRDP within the context of the District. However several things come to mind. The first and probably most important is the factor that the District is huge and administratively unwieldy because of poor communication and undifferentiated community leadership. In this context, therefore, the creation of another division a year ago as well as addition of SRDP staff as in the Plan are welcome additions to the district. This will lead to closer administration, and hopefully, clarity about government programs.

The second important factor is the popular attitude towards SRDP as another Shimba-Hills scheme cooked-up so as to settle foreigners. This "same" attitude was expressed with respect to land adjudication, especially with the switch of officers in the post. It is not just an attitude of the wider public but at times it has been voiced by the County Council. The unfortunate thing is the fact that as part of the pre-planning of the Diani Complex work on counting coconuts is simultaneously going on; this is similarly misunderstood. With closer administration these programs will be explained to their perspective.

The third factor is the fact that the program had been discussed at District level for a long time before any visible action was taken. This was due to the lack of a donor nation.

When all these factors are put together one can understand the cynicism the population feels about the program. However the District level officers have begun to push the program seriously, and they have drawn the politicians into mobilizing the District towards development in general and SRDP in particular. There are weaknesses - especially in Community Development and Health - basically due to new staff, or rapid turn-over of staff. It is time the Ministries consider longer tours for SRDP personnel. Agriculture has been innovative in assigning staff familiar with the District to SRDP duties. These recent graduates of the training institutes are not "fossilized" and non-innovative. This innovation in staffing is worth being executed by other Ministries.

One of the perennial problems for planning from the center with less than perfect data is the whole problem of phasing. Several illustrations for Kwale SRDP are worth attention.

1. Mkongani probably needs water more urgently than Kikoneni.
2. Kikoneni Water Project should have been phased differently to avoid the political problems (as discussed elsewhere in this paper).
3. Infrastructural development, especially minor roads and sugar roads, should have commenced before the extensive agricultural program was planned.
4. Similarly land adjudication should have been completed before the agricultural program. Although this may sound idealistic solving the land problems is an important step in development.
5. With respect to the agricultural package perhaps relocating farmers to homesteads is more critical than all other innovations. A credit system to help facilitate this may be the single most important factor in changing farming patterns.
6. Not quite a phasing problem but related is the issue of spending money. Once money is authorized local officials (Provincial or District) should be allowed to spend the allotted sums with minimum delay. (Some departments may have to return their house construction funds at the end of 71/72 financial year).
7. These bottlenecks in phasing are the result of ignoring the phasing alternatives suggested by the field officers, especially at the District level. It is important to stress the rationality of the District level officers as far as phasing problems are concerned: the D.C. and his officers are very much aware of the need to have visible projects for immediate consumption by the public in the first phases, followed by more complicated and perhaps not so visible projects. It is based on this approach that within the context of the Plan all District level officers ~~want the Kikoneni Water Project to be collapsed.~~ (The details are discussed below.) The point to stress is that flexibility must be given to local officers to change phases so as to take into account the local political agitations. If this is not allowed in Kwale, it is possible that the implementation phases of most projects will fail. Building into the Kwale SRDP flexibility in phasing (to be determined primarily by the competent District level team) would be a worthwhile experiment since it would provide some knowledge of how to phase planning in districts where ethnic groupings make projects politically sensitive.

For Kwale unlike the other SRDP areas there will not be a detailed programme evaluation. We shall concentrate on partly evaluating the Plan and pointing out potential problem areas and conclude by presenting baseline data relating to a purposive sample.

Recommendations:

1. Departments should assign SRDP duties to staff already with the area whenever possible.
2. The process for spending budgeted money by Provincial or District level officers should be accelerated.
3. District level officers should be allowed to change the phasing of projects to facilitate adjustment to ethnic, and political agitation which tends to become a serious bottleneck. The specific examples are collapsing of Kikoneni Water Project phases; initiating the road projects and dips in Mwereni before organization of the ranch; and introduction of cattle improvement techniques.

LOCAL LEVEL LEADERSHIP AND ADMINISTRATION OF SRDP.

Kikoneni-Msabweni-Mkongani:

The historical antecedents of the problem of local leadership are quite complicated and we will only briefly touch on them. Probably the most important was Arab rule. Arab is a vague category since there were some Digos passing for Arab in the past who in the recent past have been busy passing for Digo! Of course during Arab rule and the colonial period there tended to be a close interlocking connection between the religious leader and the administrative leader (as well as community leader). The Chiefs of Kikoneni and Mkongani seem to have been selected from this nexus. (The Chief of Msabweni was a J.A.A.) The former two are old and their lifestyle and dealings with the people reflect this. In interviews they maintained that they attend to Islamic religious duties faithfully - five times a day. All the chiefs (including Mwereni) perceive their duty as staying in the office waiting for complaints, G.P.T. etc. Usually their sub-chiefs stay in the office with them. Thus they never really interact with the people. Barazas are held mainly in the chief's center. Given the poor communication and extensive size of the locations and sub-locations, local level administration is ineffective.

The sub-chiefs are in general younger than the chiefs, with the exception of the two Kikoneni sub-chiefs. Also, they have very little formal education but usually they have had experience which has taken them out of the hold of the social milieu. Some were labourers in Mombasa and some had three to five years of education. The sub-chiefs are much more outward looking than the chiefs.

Researcher Clyde Ingle in 1971 touched on the institution of village councils. Traditionally the Digo village councils were tied to religious duties. Ingle suggested that these village councils be strengthened. It is not clear what he had in mind but in checking his data and groups he identified it was clear that the traditional village council (of mlango elders who are also socio-religious leaders) is ignored by the bulk of the local people who do not view the duties of the village council as relevant. Most of the village councils were undercut by the land adjudication committees which recruited new wazee-vijana. Since the issue of land is so central the adjudication committees have become extremely important. Agricultural committees have been established to handle the politics of the Madhvani tractors as well as choosing demonstration plots. Since these are new roles the old village council members do not suit the positions and the new younger men wazee-vijana are becoming a force with which to contend. Finally there are the other new institutions like self-help group cooperatives (being planned) and a KANU branch whose leadership positions are held by the wazee-vijana and which has local linkages with select District leadership, civil service and M.Ps.

Yet probably the thing which has decimated the traditional village councils are the new land use patterns. Those who have previously written on the SRDP area have ignored this fact. It is true that the traditional village elders ruled communities which were small and extended only to the boundary of the village. With the opening of new agricultural land away from the villages, people are beginning to spend more time on the larger farms away from the village. It is true that for the majority stays away from the village are temporary but they effectively remove the person from the elders. This has nothing to do with adjudication; it started before adjudication. Erosion of the powers of the village councils was greatly accelerated by the movement into the area of immigrants who did not pay attention to the existing elders.

Immigrants also have village councils but these are more in the nature of leadership of self-help groups than in the classical Digo perception of a village council.

The problem of local level leadership is complicated by a very serious generation conflict. The young (18-25) have very strong negative attitudes towards their parents. They accuse their parents of failing to educate them and as a result relegating them to cutting cane for Madhvani. This attitude was forcefully put to me by all the youth I met when conducting unstructured interviews. It is this group which defies all village institutions and for which plans need to be made, e.g. adult education. This group will be

extremely important for the area agricultural program since some are being allocated farms by their parents during adjudication.

The existence of the wazee-vijana as a progressive emergent leadership, the existence of unresponsive old village communities and a young population questing for improvement in their lot lead one to conclude that local participation in development is possible. This, though, has not been encouraged by the present local formal leadership (chiefs/sub-chiefs) and Community Development people have not been particularly active. SRDP pre-planning and planning did not encourage popular participation. This was a mistake. It should be ameliorated soon by encouraging/solidifying the new leadership of wazee-vijana; starting general non-traditional community groups e.g. harambee groups; starting continuing education groups for the population (see education section below); and finally by improving administrative contact with the people - more intensified staff training in administration as well as development orientation of staff officers.*

There exist old colonial-type chiefs and sub-chiefs staying in the office and expecting community work to be done by the old village councils. This is a misconception since the institution in its pure form is dead. The village councils have been replaced by specialized committees (land adjudication and agriculture and self-help groups) monopolized by a few wazee-vijana who are breaking all barriers in trade, agriculture and even lifestyle, (e.g. living on their farms or places other than in the villages!). This emergent community leadership is ignored by the chiefs/sub-chiefs to the detriment of the community. One could argue that all formal leaders in the area should be recruited from this group. However, for strategic reasons, it may be folly to replace the chiefs/sub-chiefs outright since they and the traditional village councils may veto some subsequent activities, as District level officers clearly point out. It is therefore recommended that the number of sub-chiefs be increased, drawing recruits from this wazee-vijana group, and, furthermore, that sub-chiefs be made to stay in their sublocations. On retirement of the old chiefs, new and more development-oriented ones should be appointed. Although there is pressure from the immigrants to get sub-chief/chief positions, especially Kikoneni, this is highly impolitic in the short run and should be discouraged. The experience of the Shimba locations, with their greater immigrant population than Kikoneni, should be a lesson. In the long run once immigrants are accepted, the community may choose immigrant leaders. Only then will it be possible to have immigrant chiefs and sub-chiefs.

* Consult the paper "Local Involvement in the Special Rural Development Programme" on other ways this might be done.

A word about the Division level is in order. The D.O. Msambweni has had very little dealings with the SRDP area due to communication problems and (for the current officer) health problems. The SRDP D.O. Area Coordinator stationed at Kwale is new to the area. It is important that he covers the SRDP area in depth and since his job is co-ordination he must not use the command formula but rather a participation approach. This will entail more detailed knowledge of the area and of local level leadership than he has at the moment. It will basically involve monitoring and helping in organizing agricultural-oriented programs. Since there is clear evidence that the chiefs are not the most effective leaders he will have to use alternative local level leaders; the only viable alternative is the wazee-vijana.

Finally a word about rationalizing local level leadership. It is clear that different ministries use different local level leaders. Ministry of Lands uses the Land Adjudication Committee which later may become part of the Land Board. The Ministry of Agriculture has the Agriculture Committee, and Social Services has self-help groups in Kikoneni. Although as indicated above the membership overlaps (wazee-vijana) it may be useful to subsume all these under an SRDP Committee so as to deny inter-ministerial manipulation of local leadership as well as acquiring a new coherent entry into the community. Incidentally this would also assist in consolidating new local level leadership which is development-oriented and which the Area Coordinator (the ACDC-SRDP) could use.

Recommendations:

1. Chief/sub-chiefs should be involved in SRDP work by impressing on them the utility of development work outside the office.
2. New **chiefs/sub-chiefs** should be recruited from the younger more development-oriented wazee-vijana category (as discussed). They should be indigenous people. An increased number of **sub-chiefs** is desirable.
3. The new committees should be encouraged at the **expense** of the traditional village council which probably will continue to handle personal life matters. These committees should be brought together under an SRDP Development Committee.
4. The Area Coordinator should use the SRDP Development Committee in mobilizational work which will be basically agricultural. This presumes his greater familiarization with the area and rejection of the command model of D.O. behaviour.
5. Any future planned SRDP courses should not only include work on agricultural technology but also social technology skills for the wazee-vijana, chiefs and sub-chiefs and all field officers involved in SRDP.

FAMILY HOMESTEADS

Another major omission in the SRDP plan is the potential breakdown of village community lifestyle. Within the Kenya planning framework very little attention has been paid to the possibilities of planning within the constraints of village communities. We have accentuated the scattered homestead (although we wrongly call them villages) since most planning assumes the individual family is the ultimate unit.

Traditional Digo/Duruma settlement patterns were villages. For the SRDP area this is still the dominant pattern. As mentioned under land adjudication, the opening of new lands population pressure, and the desire to break the hold of the traditional village social system have led to a few people beginning to build their homesteads on pieces of land away from the villages. These are the pieces of land where they intend to do modern farming. The agricultural officers in the field accentuate planning for these pieces away from the village first because there is not the confusion of farm uses found in the old farms; second the farms are bigger; and third the soils are not misused. These are valid reasons but they assume that the farmer will live permanently on the farm (at the moment to keep away wild animals but later to look after his investment). The emerging pattern is that the farmer erects a temporary structure on the farm, and when it is not necessary for him to be at the farm he returns to the village and his permanent home. This then becomes a constraint on good farm practices. A lot of energy is wasted in commuting to the farm, etc., and it is difficult to be visited on the farm by extension officers etc. The problem then is to find ways of inducing most of the people to move to the pieces of land they intend to farm permanently. How do we do this? Schemes do not exist for providing rural housing in Kenya. For the SRDP area we might have to follow through the fundamental assumption about the desirability of scattered homesteads (in the national planning framework) and provide funds for building permanent homesteads for the farmers who want to move. Since the SRDP area is going to be adjudicated, the farmer could get credit on his title deed to construct a modern house. Perhaps this should be a project to be undertaken by a commercial bank or the Kenya Housing Finance Corporation. It may turn out that homestead credit is more important than any agricultural credit which may be encouraged.

Recommendation:

Ways be found for extending credit for building homesteads on private plots away from the villages. The land should be used as collateral.

ROADS

The roads in the SRDP area are to be constructed by MOW. This is an experiment as far as National SRDP road construction is concerned. But, very little has been done so far. Construction is scheduled to begin this financial year (72/73).

Several points need to be made in strong language. For all practical purposes there are no roads in Kikoneni Location, Mwereni Location and Mlongani. A passable road just traverses the area. During the rainy season it is only 4 wheel drive vehicles which can even get to the centers. The so-called sugar roads are critical since they traverse an area which gets flooded and it becomes impossible to get in or out of most of Kikoneni. Given the planned agricultural program it is imperative that all the planned classified roads be constructed soon. The specific minor roads are 1) Mafisini - Vwivwini 2) Mrima-Mamba-Mwanguda 3) Mamba-Mwananyamala 4) Kizibe-Marere 5) Msabweni-Eshu-Eshu 6) Ramisi-Vwivwini-Kikoneni-Mwengulu-Kilimangodo-Kanyambuni 7) Mwangunda-Mkengani-Kinangu, and 8) Ndavaya-Mkengani. Of the primary roads, C106 has been constructed from A-14 to Kwale but the Kwale-Kinange-Lunga Lunga portion needs to be upgraded; C108 from A-14 to Shimba Hills-Kikoneni Mrima needs extensive work, parts are impassable even with rally driving on 4 wheel drive.

Recommendations:

1. Work on sugar roads should be carried out first since they will be needed for marketing this year's sugar crop.
2. The phasing of all classified minor and primary roads construction be changed to emphasize first the minor roads. These will link up with the completed A-14.
3. Self-help communal labor techniques should be introduced at the location/sub-location level to construct farm roads.

KIKONENI WATER PROJECT.

In discussing the Kikoneni Water Scheme with the W.D.D. trainees (during the month I spent in Kwale I never managed to meet the Officer in Charge - an expatriate), District level officers and Provincial level officers

the problem which has been articulated is the phasing of the Project. There seems to be a concensus among field officers that Phase I of the Project was scheduled to service Kikoneni chief's center basically for its demonstration effect on Digos who live around there. Initially the trenching for the pipes was to be dug by paid labor. This is what the people around Kikoneni Chief's Center were told. These plans backfired since the immigrants (Kamba basically) are in the other parts of the location and have been made active in trenching.

The plan did not envisage the use of self-help labor. However, when the project started in April 1972 self-help labor was used for trenching as a result of initiative taken by the administration. Hired labor was to be used for the more specialized task of pipelaying.

Major problems arose out of the fact that the Kambas of Mwanayamala and Digos of Kigombere (dominated by wazee-vijana leadership) who did most of the trenching up to about $\frac{1}{2}$ mile from the chief's center are not to receive water until Phase II. The Digos around the chief's center were refusing to trench until political pressure from the Provincial and District level as well as MPs, was brought to bear on them.

In the opinion of the field officers, it is extremely important that the major lines for Phase II and III be allowed to proceed within this financial year (72/73) so as to diffuse ethnic rivalries. Furthermore the costs of the water system could be cut by greater use of self-help labor. Also, all officers agree that the Water Project will make or break SRDP Kwale in the sense that its demonstration effect and economic benefits will be highly visible. They further argue that a determinant of the success of the program is the release of all planned expenditures in the current year, without waiting on Phases. Authority should be given for greater flexibility in the use of these funds.

There have been unanticipated technical problems with the construction of the intake weir and pump. However the W.D.D. trainees argued that these would be solved shortly. Another problem is the supply of mainline pipes on schedule. Work on access roads, clearing sites, and ancillary construction is progressing.

Recommendations:

1. Greater use of self-help labor for non-skilled aspects of the construction.
2. Phases I, II and III to be done simultaneously so as to diffuse the inter-ethnic and intra-ethnic rivalries and to create a visible success.
3. Speeding up of material supplies (substitutes of local materials).

LAND ADJUDICATION

The critical point to note on adjudication is that perhaps in an ideal ~~planning situation~~ it should have come first. This was not the case and ~~adjudication is proceeding~~ along with other programs.

Land is a serious political issue. The discussion centers on whether migrants have land rights. This led to the stopping of adjudication work at Mrima, Mwananyamala, Bumbani B and C, Mafisini, Mwangunda and Mnanasini in 1971. Work has been resumed and the field officers expect to complete all adjudication in Kikoneni Location by the early part of 1973. Mwereni Location and Mkongani are not declared yet; it is anticipated that they will be declared soon.

Several points are worth noting. Concern has been expressed in some quarters about the desirability of land consolidation. The argument is based on uneconomic holdings. In Bumbani A where adjudication is complete, 168 parcels out of 820 are under 1 hectare. However these parcels are found in the villages where the village members share a ~~piece of~~ the already developed area (basically with coconuts). In examining the working adjudication list, we found that persons had an average of 2 pieces in Bumbani A and other pieces usually bigger in Bumbani B and C, Mwananyamalo, Mrima etc. Since the idea is to move to the bigger pieces for modern agriculture the problem of small uneconomic pieces may not be as serious as envisaged.

Incidentally there is potential fragmentation in Bumbani A where the clan elder registered the village as his own plot but under Digo tradition has parcelled it out to the clansmen. We came across three such cases and this should be anticipated in Mafisini.

Recommendations:

1. Given the political sensitivity of land holding, adjudication work needs positive political inputs from the MPs, D.C., P.C., and District Councillors. This should be expressed by the D.C. to these persons.
2. In conjunction with the Group Ranches Section of the Ministry of Lands and Settlement all the District level officers ought to plan adjudication of Mwereni Ranch to take into account problems raised above on membership.
3. I do not see a case for land consolidation since the pieces are not terribly small; probably they will be passed on to sons in another generation anyway.

EDUCATION.

One of the ideas absent from the SRDP Plan is the role of education in general. Of course even the portion discussing adult education is ineffectual. Functional education is omitted from most of the envisaged programmes and it should be worth raising this point at the highest levels of Government. I am not just talking of education for the young but education for all levels of society. Even the farmers will have to be taught to begin to farm well. One does not have a formally educated population to draw on as in other SRDP areas. Probably the most critical cohort are these aged 15-25 who have not even gone to school.

A related problem is immigrants' dominance over the formal education system. In my opinion Ingle's data understates this. If the indigenous people do not begin to go to school, the immigrants will ultimately dominate the District. The urgency of this cannot be over-stressed. In a way, all SRDP programs are irrelevant if they are not coupled to education of the young.

Bujra/Brokensha (1970) suggested that Government expand Mandarasa. In the view of most local persons this would be deleterious to the development of the area; a view I agree with completely. The attitude toward Mandarasa was summed up by the Chief of Msabweni during Madaraka Day 1972 when he said: "The Arabs cheated us to go to Mandarasa when they were sending their children to modern schools. Do you see the D.O. here? Is he not an Arab? Is he not holy? How did he become a D.O.? It was not by going to Mandarasa but by going to school. Mandarasa teaches religion for the individual. You need skills which you can only get in school". The view that Mandarasa should be part of Government subsidy of education is ridiculous.

In the other areas of Kenya, Mandarasa is either just a lesson during the school day taught by a qualified teacher or a religious leader, or a program after school, or a pre-school program. The people of the area should take any of these options which are accepted by the Chief Kadhi as legitimate ways of religious training and send their children to regular school. Institutions of Mandarasa could be left to self-help groups. This may be a novel way of introducing self-help group techniques to the indigenous population.

The wazee-vijana who are battling the traditionalist village elders on the issue of Mandarasa should be helped by Government propaganda. I realize that this type of propaganda has been accelerated by the District level officers but perhaps the only way to make the point is to forcibly collect school fees and not just talk about it in barazas.

Recommendations:

1. We advocate serious reconsideration of the plan to include a mass literacy campaign related to the agricultural programs. This may be a worthwhile experimental addition to rural development. I.D.S. and I.A.S. could act as consultants in developing a completely new program suited to Kwale.
2. Drastic government action to encourage parents to retain their children at school is highly recommended. Enforced payment of fees may be required since parents 'obey the law' by sending children to school but refuse to pay fees even when able!
3. Relegation of Mandarasa to the realm of personal life and the use of self-help for the construction and maintenance of Mandarasa schools should be the future policy on Mandarasa. This should be a useful way of introducing self-help techniques to the indigenous population.

MWERENI RANCH.

Brokensha's idea that three consecutive droughts had decimated the cattle population in Mwereni which showed that there were about 7,500 (similar to the March 1972 census) cattle as compared to 22,000 in the 1969/70 census. Furthermore his idea that the initiation of the communal ranch should have occurred (so as to avoid the problem of culling) at this point is well taken.

Although people are agreed on some form of communal ranch several problems remain. In discussion with the District Range Officer and Group Ranch officials from Nairobi, it was consistently stated that all the Mwereni people would become legal members of the communal ranch and, furthermore, that loans would be made to the communal ranch with its profits being shared among all the people of Mwereni.

There are several sociological problems which may threaten any plan initiated under the above assumptions. We discuss these in detail. With regard to cattle ownership and use, one can classify the population of Mwereni into

- a) Cattleowners
- b) Cattle-users
- c) Non-cattle owners/non-cattle users, i.e. subsistence agriculturalist.

There is no data to indicate the percentage of people currently in each group but the P.V.O. (1965) suggested that 80-85 per cent of the population lived off other peoples cattle (by looking after them and selling the milk) and further that 50 per cent of all cattle were owned by 2.5 per cent of the population.

The immediate policy question is whether to make cattle-users members of the Group Ranch. If they are, a subsidiary question is what security can they offer since the cattle will belong to the owners. The other major question is whether to allow the subsistence agriculturalists (about 15-20 per cent) to become members in the group ranch. If the idea is to convert the area into ranch land, it may be necessary to limit subsistence farming and resettle those people in a specific area.

Adjudication, which has not started, will be done on a clan basis. The title will then be held by the Group Ranch. What is to prevent individuals claiming land for use in other ways later? This needs further discussion during pre-planning involving popular participation and not just 'explaining to people' as some officers maintain.

Recommendations:

1. Land adjudication of the area.
2. Membership (stock quotas) be allocated equally to every person who can show land rights in Mwereni Location.
3. Stock allowed in the ranch be strictly as per stock quota. This will force cattle owners (the minority) to either sell their excess stock or negotiate extra grazing quota from clansmen/others.
4. Subsistence agriculture areas either be specifically adjudicated within the ranch or outside. It is not adequate to leave it hazy as to whether subsistence agriculture will be allowed in the ranch. The proposal in the Plan for settlement in Jombo Forest does not seem to be known even at the District level. The Jombo Forest area is rapidly filling up with non-Duruma migrants.
5. It is imperative that home sites be specified during adjudication. It may be worthwhile to plan villages rather than scattered homesteads since most of the land will be open ranch.

AGRICULTURE - GENERAL

The Ministry of Agriculture appears to be on top of its program. A tree crop census has been completed and the report was in preparation during field work. Demonstration plots and bulking plots (usually on the wazee-vijana land) are progressing satisfactorily in Msabweni and Kikoneni. The Madhvani tractor has been working on sugar nurseries (100 acres) and by June 6th, 1972 some of the land was being planted. It was argued that an additional tractor could be used. The Ministry, I was informed, has ultimately agreed on tree crop nurseries in the SRDP area as opposed to relying on Mtwapa Nursery. A cattle census has been completed in the dairy/beef area (Mkongani/Kikoneni), showing 4000 cattle and in the Mwereni Ranch area 7500 cattle. Dam and dip sites have been surveyed and work is progressing. There are plans

for starting a sugar cooperative in Kikoneni. All programs are just beginning.

A potential problem in Msambweni, Mkongani and Kikoneni will be the selection of SRDP model farmers. At the moment the members of the agricultural committee (in Kikoneni) seem also to be the beneficiaries of demonstration plots and bulking plots. These are the wazee-vijana. There is a danger that when it comes to selection of farmers for the detailed program this group which, in the parlance of the Ascroft et.al. study of Tetu, can be defined as progressive will be the sole beneficiaries. Given experience elsewhere it is imperative that the SRDP project farmers come from all strata to ensure a more effective demonstration effect. Furthermore they ought to reflect the proportions of the various ethnic communities if not show bias for the indigenous people. Selection of these farmers will be critical for the success of the program.

Recommendation:

SRDP model farmers be selected to reflect ethnic variation, ~~size~~ size, age and sex and not to just reflect the emergent progressive leadership. Indeed the challenge is to move the less progressive farmers and not to just help the progressive ones.

AGRICULTURAL SUPERVISED CREDIT -
RAMISI SUGAR FACTORY.

At present the Ramisi sugar factory works at 50 per cent capacity. It obtains its supply of sugarcane primarily from its own plantation. Plans are underway to create a group of small-farmer-suppliers, largely through regular (MOA) extension efforts. It seems, however, that a very good opportunity for intensified extension has been overlooked.

The sugar factory has a monopoly on buying sugarcane. That is, a farmer with surplus sugar cane has no alternative but to sell it to the factory. This means that the factory can exert considerable control over the farmer's management practices. "If you don't do so-and-so, I won't buy your sugar". The factory has an implementable threat. Monopoly also means that the factory can give loans without running risks, since it can deduct the repayment of the loan from the farmers sugar income. Chemilil sugar processing has some experience in this, which ought to be taken into account.

In all, the sugarcane factory offers an ideal opportunity to introduce supervised credit. Several possibilities are open:

(1) The factory can contract farmers to grow cane under the same conditions as in the plantation. This implies very close supervision and tight control. The farmers virtually operate as laborers and make a few management decisions.

(2) A second possibility is for the factory to operate with its trained extension staff, helping the farmers to grow sugarcane on their farms. The factory gives all the technical advice and loans for establishing plots, fertiliser, sprays and transport. In this situation the control of the factory largely consists in quality control, i.e. different prices are paid for different grades of sugarcane. The possibility even exists for the factory to set up co-operatives (which own lorries for transport, etc). In this situation the farmer is less tightly controlled. The advantage of the scheme accrues from the intensified extension, the controlled loans and certain income provided to the farmer. A condition for the scheme's success is, of course, that farmers do not have more lucrative alternatives.

An example of a successful supervised credit scheme may further illustrate the possibilities. BAT (British American Tobacco) had a factory in Nigeria which operated under the same conditions as the Ramisi sugar factory. It had its own extension staff which roamed the surrounding farming area. First, the staff established whether an area was suitable for tobacco. If it was, the headman of the area was contacted and the possibilities were thoroughly discussed. Later farmers were contacted in barazas and the rights and duties, benefits and costs, of tobacco growing were thoroughly discussed. Interested farmers were then given some training in tobacco growing (FTC?). Next the farmers established nurseries under close supervision of the extension staff. The land was plowed by the factory (on loan), the land was planted with the help of the extension staff, and sprays and fertilizer applied (on loan). The farmers then brought the harvest to the selection center where factory employees graded the leaves (in public so that farmers learned what good and bad grades were). The farmer was paid after completing the harvest and after deducting any loans and advances he might have been given. The farmers made good money and people were eager to join the scheme. Later, i.e. when a group of farmers proved "good", the factory helped the group to set up its own curing barns and co-operatives to run the barns. Farmers now made more money since they sold the cured product to the factory. The factory retained quality control, i.e. continued selecting the leaves into grades. It also kept the administration. In later stages these activities will possibly also be left to farmers. At present, the co-operative can also buy leaves from non-members, making a profit from curing.

The scheme in Nigeria was so successful that the regular extension staff could no longer operate directly with the farmers. The farmers would only accept advice from the factory extension staff as farmers trusted them completely.

A beneficial scheme of this nature could easily be established at Ramisi. It would seem that a tightly organized scheme could easily receive initial financing by commercial banks if the factory does not have the money for the necessary initial expenditures. A condition for the scheme is, of course, a good network of sugar roads opening up the farming area to facilitate transport to the factory.

In the Ramisi case the tendency for Kamba migrants to control the inputs from the factory should be checked. These inputs should be fairly distributed among the ethnic groups.

Recommendation:

A supervised sugar credit system tied to Ramisi factory with proportional participation from the assorted ethnic groups should be started.

EXPATRIATES AND KWALE SRDP.

Most of the local officers I met with at the Provincial, District and Divisional level are convinced that expatriates do not have a positive role to play in SRDP. They give two basic reasons.

1. One of their colleagues had been assigned the duty planning SRDP - Kwale and he was clearly instructed that money was not a consideration. He produced a report which was then used by a set of expatriates connected with SRDP at the centre to argue against local planners. Ultimately some expatriates in SRDP at the centre wrote the plan in the opinion of local staff - slighting local staff.

2. The second reason is the history of one expatriate who in the late fifties was connected with the Shimba Hills Settlements. Lately he has been in the Provincial Director of Agriculture Office. He is not particularly popular - not only with Provincial level officers (administrative and other) who have written memos clearly indicating that they would rather not have him around but also with very local J.A.As. who worked with him in Shimba Hills. Beyond the purely personal, people talk about Shimba Hills as only having provided luxurious housing for experts and not meaningful development.

The other point against expatriate involvement at the local level is that it would not allow the local administrative staff to be responsible for implementation, especially phasing of projects in relation to political objectives as clearly indicated in the Vihiga SRDP.

Recommendation:

Expatriates should not be posted to Kwale SRDP, as this would just generate strife. The watch dog role (for the donor) can be played from Nairobi.

INTERVIEW DATA

After extensive unstructured interviews of officers and the population in general in Kwale, it was decided to attempt structured interviews. The sample for the 'baseline' data on Kwale SRDP was constructed in such a way as to embrace the formal governmental leaders at the local level, chiefs and sub-chiefs as well as demonstration farmers. The demonstration farmers are not, as was made clear by the field officers, the people who were going to be SRDP farmers. One of the other two categories of people in the sample were self-help group leaders, who were Kamba immigrants into the area. These are the ones with bonafide self-help as opposed to government communal labor as in Uwereni Location or traditional Mlango group activity in functions like Matanga. (Incidentally for future evaluation it maybe wise to sample leaders of Mlango groups.) The other group, was a random sample of the people of Bombani A - the only part of the SRDP area with completed land adjudication. It is an area of old settlement, basically Digo - there are only (1972 June) 15 settlers from the other parts of the country, and the individual land plots are smaller than in the rest of the SRDP area with the possible exception of Mafisini - in Msabweni Location.

Clearly then, this is a purposive sample. Previous attempts to construct a random sample by various means by Ascroft had not been productive. The various categories of the sample were:

Chiefs and Sub-chiefs	--	11
Demonstration Farmers	-	9 (7 Digo, 2 Kamba)
Self Help Group Leaders	-	10 (including 2 Kamba Demonstration Farmers)
Random Sample of Bombani A		
Farmers	-	20

We were able to interview:

1. 11 Chiefs and Sub-chiefs
2. 9 Demonstration Farmers (7 Digo, 2 Kamba)
3. 10 Self-Help Group Farmers (9 male Kamba, 1 Kamba female)
4. 16 Random Sample of Bombani A Farmers. (All Digo)

The total sample was therefore 45.

DEMOGRAPHIC DATA.

The Bombani A sample contained 2 women and 14 men.

All the self-help group officers were Kamba and one was female. All chiefs and sub-chiefs were male: 8 were Digo, 3 were Duruma. All the demonstration farmers were male; 7 were Digo, 1 was Kamba, and none were Duruma. The sample did not catch any other tribes like Taita, Meru, Nandi, Luo or Kikuyu who are in the SRDP area but in very minor numbers. Thus Digo were 67%, Kamba 26%, and Duruma 7% of the sample. Of the sample 49% were born in Kikoneni location; 7% were born in Mwereni location; 12% were born in Msabweni location; 25% were born in Machakos (22% in Eastern Division - Kiteta or Muthetheni Location and 3% in Northern Division-Kangundo) and 7% were born in Mkongani location.

11% of the sample was under 30 years old; 71% was 30-50 and 18% was over 50.

All the chiefs were between 30-50 years old. 42% of the sub-chiefs are between 30-50 years of age. 58% of the sub-chiefs are 50 years old, clearly they need to be retired.

2 of the demonstration farmers were under 30 years old; 6 were between 30-50; and none were over 50 years old. Of the two under thirty years of age, one was Kamba, and the other Digo. All are wazee-vijana. No chiefs/sub-chiefs are demonstrated farmers.

TECHNOLOGY AND INNOVATION.

Of the self-help group leaders, 2 were under 30 years old, 9 were between 30-50 years old and 1 was over 50 years old.

All the respondents had poor houses made of wood and mud (immigrants had copied the Digo construction technology), with earthen floors and wooden windows. The household facilities were poor. 50% of the sample did not have toilets and of the rest 5% had pit toilets. 100% use three stones to cook upon, and 100% use paraffin for lighting although only 87% had a chimney lamp. 85% had not fenced their shambas. There were seven (37% of all stock-owners) people with cattle spray equipment; of these seven, 3 are Digo and 4 are Kamba. The fact that the only few people have spray equipment in spite of the fact that 42% (19) of all respondents own stock reflects the low level of livestock husbandry. There is no evidence that those without private spray equipment was public dips. The three Digos with spray equipment are some of the most progressive wazee-vijana. It is remarkable that they have adopted cattle.

They are relatively large scale farmers/traders. 24.4% (11) of all respondents have a saw; 87% (39) have a chimney lamp; 87% (39) have a modern jembe; 78% (35) have a Digo jembe; and 100% (45) have a panga. (This may reflect the Coconut culture + Immigrant farming + Duruma herding.)

ACCESS TO INFORMATION

Sources of information for the population are also poor. 20% (9) never listen to the radio and only 47% (21) of all respondents own a radio. 20% (9) of all respondents listen to the radio seldom and 9% (4) listen a few times a month. Thus 49% (22) of all respondents listen to the radio few times a month, seldom or never. If we add the category of who listens a few times a week, i.e. 13% (3), we note that 52% do not get information through the radio effectively. Only 38% listen to the radio daily or almost daily. With respect to newspaper readership only 4.4% (2) read the newspaper daily or almost daily. 13% (6) read newspapers a few times a week. 22.2% (10) read newspapers a few times a month. 27% (12) read newspapers seldom; 33.3% (15) never read newspapers. Thus 95.5% of the sample population obtain very little information from the daily newspapers. 100% never read monthly or weekly magazines. Very few people travel outside the local area. 4.4% (2) travel to Mombasa daily or almost daily (incidentally those who travel are not the newspaper readers); 60% (27) travel to Mombasa seldom or never. From the list of names and locations we were able to show that daily newspaper readers and radio listening is related to good bus service. The good readers and listeners were at Msambweni and Mwangulu.

EDUCATION.

The educational level of the population is low, particularly for the Digo. Only 27% (12) have been beyond primary school and only 11% (5) are fluent (reading, writing and speaking) in their vernacular, Swahili and English. Of the fluent 11%, 4 are Kamba immigrants and 1 is Duruma. There aren't Digos in this category. (One should note that Digos are 67%, Kambas 26% and Durumas 7% of sample). 46% (22) cannot read or write vernacular, Swahili or English. There is 1 to 1 correlation between being able to read and write the vernacular and Swahili and English. 83% of the Kamba migrants can read and write the vernacular and Swahili. 100% of the Duruma can read and write the vernacular and Swahili. Only 23.3% of the Digos can read and write the vernacular and Swahili.

Of the 12 who went beyond primary education 10 are Christian by religion. This group is composed of 2 Duruma and 10 Kamba. In terms of ethnicity 2 of Duruma are Christian, and 1 is Moslem; (he is educated up to Form II). 100% of the Kamba are Christian. This needs further investigation to disaggregate the correlation

between education and religion. Incidentally since there is no Digo Christian, there is a positive correlation between Islam and lack of education. For the Kambas there is positive correlation between Christianity and education. The Kamba sample is rather small and consists only of leaders. For the Duruma the sample is small and is also of leaders. However 2 Durumas under 30 years old are educated above primary (Std. 8) and 33.3% of Digos under 30 years old are educated above primary (Std. 8). 100% of the Kambas under 30 years old are educated above primary (Std. 8).

Of the 12 of the sample who have been beyond primary (Std. 8) 1 is Digo, 8 are Kamba and 3 are Duruma. All Kamba and Duruma have children in school. All the Digos under thirty years old with children, have children in school.

70% (21) of all Digos in the sample are between 30-50 years old. 7 send their children to Mandarasa and school; 3 send their children to Mandarasa only; 8 send their children to regular school and 1 does not send his children to any type of school.

7 of all Digos in the sample are over 50 years old. 14.4% (1) has his children in Mandarasa and regular school: 1 has his children in Mandarasa only; 1 has his children in regular school; and 4 do not send their children to any type of school. It is clear then that the middleaged Digos, between 30-50 years, are beginning to send children to school and de-emphasizing Mandarasa. This interpretation is based on the data breakdown as well as a finding that the wazee-vijana send their children to Mandarasa as a nursery and later put them in regular school. Unfortunately the data cannot be further disaggregated. Clearly field work data revealed that the older Digo (who have school age children due to the marriage patterns) do not emphasize regular education. This question should be explored further in future evaluation by checking number of wives and marriage times to get children spread thereby establishing for sure whether the Old Digos send children to school when they have school age children.

Of the demonstration farmers 6 have not been to or past primary school while 4 have. Of the self-help group category 4 have not been to or past primary school and 8 have. Of the chiefs and sub-chiefs 8 have not been to or past primary; 3 have. It is clear then that the self-help group leaders are more educated than both demonstration farmers and the administration leaders. Incidentally of the chiefs, 3 have not been to or past primary. 1 has (Mwereni Location chief). Of the sub-chiefs, 5 have not been to or past primary; 2 have. Therefore disaggregating the chief/sub-chief does not show much difference. Both categories have not had much formal education. The sub-chiefs seem to have had greater formal education, basic travel and assorted jobs outside the area.

STRUCTURE OF OCCUPATIONS.

Out of the whole sample we pulled out those who had two (the maximum enumerated) previous jobs. They were 24.4% (11). The pattern of previous jobs in sequence is reproduced and does not seem to make sense.

<u>First job</u>	<u>Second job</u>	<u>Third job</u>
Farmer	Trader	Farmer
Mechanic	Mason	Farmer
JAA	Clerk	Chief
Teacher (UT)	Clerk	Chief
Army	Foreman	Sub-chief
Cook	Forces	Farmer
Teacher (UT)	C.D. Assist.	Farmer
Laborer	Trader	Farmer
Army	Mechanic	Farmer

LABOR USE PATTERNS.

As far as agricultural labor is concerned all respondents use family members. 40% (18) do not use contract labor. 64% (29) do not use regular paid labor. 58% (26) do not use self-help labor. Thus it is clear there is very little labor used outside the family. The Kamba use all forms of labor.

FARMING PRACTICES.

Agricultural practices with respect to new crops are poor. Since everybody has coconuts, cashew nut, local maize, mangoes, cassava and fruit trees we present data on hybrid maize, cotton, sugar cane/stock (local cattle, and goats and sheep. Nobody keeps exotic chicken or pigs). Only 22.2% (10) have hybrid maize. 53% (24) have cotton. 59% (26) have sugar cane. 69% (31) have stock. All the Kambas in the sample have every crop other than hybrid maize; they argue that they can make more money with crops other than hybrid maize. All the Duruma have stock and 67% have vegetables and none have the other crops. Digos do not in general have stock and vegetables. Digo demonstration farmers adopt only a single crop, either cotton or sugar cane.

There are no cooperatives other than the Mariakani Milk Scheme -- where the 3 Duruma are members. There are no dairy enterprises. In spite of the fact that 69% (31) of the sample have stock (local cows and bulls and goats mainly) the husbandry practices are very poor. Nobody uses fodder or concentrates. Nobody deworms or keeps records. There are no stock/dairy cooperatives. The watering places for cattle are streams and ponds. Only 37% of the stock owners have spray equipment. Given the shortage of public dips we can assume that they are the only ones who spray. Most of the respondents have never seen a veterinary officer. One should note that the general impression of very little stock in the Kikoneni Location is belied by the percentage keeping stock.

Incidentally only 38% (17) have gone to F.T.C. courses while only 11% (5) have gone two times or more. As far as the significance of agricultural officers for information is concerned, the locational (Kikoneni) JAA was nominated as a key Government Officer 4 times. The sub-locational (Kikoneni) JAAs (2) were nominated once each! The respondents consistently nominated chiefs and sub-chiefs as more important than all other officers.

In the nominations of the non-governmental leaders Marco Katisya (self-help leader) was nominated 7 times, and Omari Hassan Masemo (demonstration farmer) 4 times. Bhakhari Rasi (religious leader who was not in the sample) 4 times. Hamisi Shee (religious leader who was not in sample) was mentioned 3 times. 8 others were nominated twice. 55 others were nominated once. Among those nominated once include the local MP. No other MPs were nominated.

Marco Katisya's nomination is probably reflective of his leadership role among the Kamba immigrants and Omari Hassan Masemo's nomination is reflective of his role as a trader/farmer/Digo political local level leader. Both are part of the wazec-vijana. Both base their influence in their specific ethnic communities and do not seek to bring other ethnic groups into their followership.

ETHNICITY.

Attitudes towards employing other tribes are very interesting. 60% (27) argued that people mind employing a Kalenjin (the dummy variable) as a laborer. 24% (11) themselves mind employing a Kalenjin. 18% (8) themselves mind employing a Kamba, 18% (8) themselves mind employing a Kikuyu. Further checking indicated it was the same people. 9% (4) themselves mind employing a Duruma. The four were the same who minded employing Kambas, Kikuyu, and Kalenjin. Only 3.3% (2) mind employing Digos. These two are Kambas, one minds employing only Digo, the other minds employing Digos and Kalenjin. Thus it seems clear that it is only the Digo who mind employing persons of other tribes - perhaps a reflection of opposition to immigrants, which underlies the whole thrust of this report, that is, ethnic

attitudes and their manipulation for vetoing programs is a problem which will have to be attacked seriously before any programs can succeed.

C - 1
MBERE SRDP : AN EVALUATION⁺

by
G. Gwyer

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- II. Summary of Recommendations
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 - B. Evaluation of Project as Presented in the Plan
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References

⁺My thanks are due to other members of the evaluation team and to Deryke Belshaw for helpful comments on earlier drafts, and to David Brokensha for access to information about the agricultural labour market situation gathered from questionnaires completed by pupils of Siakago High School.

EVALUATION SUMMARY

QUESTION 1. Is the planning framework developed for SRDP adequate or effective to meet its principles and objectives?

The Mberé SRDP Plan document represents a well-integrated plan for development in an area where factual information was lacking. The strengths and weaknesses of the Plan are very much related to the information available to the planning team at the time the plan was prepared. The proposals in the Plan deal with (1) infrastructure and (2) production increasing activities. The proposals for infrastructural improvement are sound because the needs could be readily identified. The proposals for productive activities are less sound and reflect paucity of information about the farming systems of the area.

Partial proposals for remedying the information gaps (through agronomic trials) are mentioned in the Plan, but have still to be implemented. There are no proposals for a systematic investigation of farming systems across the ecological zones of Mberé. Thus the planners did a fair job in preparing a plan in the absence of facts, but the attempt made to improve the data base for effective planning was inadequate. Instead of relying on existing information, the planners could have obtained additional information about the production situation (as for example, by a baseline survey as in Vihiga and Tetu) in a relatively short period, which would likely have led to a better diagnosis of production possibilities and constraints and suggested opportunities for useful experimentation.

It seems that the emphasis of the crop development programme in Mberé was unduly influenced by what little information on crop performance did exist, and that this is why cotton figures so large in the programme.

At the project level, the cotton block programme was not subjected to proper financial appraisal which would have shown it to be a loss maker even under optimistic assumptions about yields. As an experimental programme the cotton blocks had dubious and conflicting objectives. Although subject to strong and sound criticism from independent observers, the programme went ahead. The cotton programme on private plots was based on over optimistic assessments of yields obtainable under ordinary farm conditions which resulted in unrealistic projections of acreage expansion.

No proper attempt was made to consider the relative profitability of cotton vis -a -vis other crops in a whole farm system.

It seems that the Mberere SRDP pursues the SRDP objectives but only adheres weakly to the SRDP principles. Experimentation is confined to three projects: cotton blocks, trader credit and the agriservice station. The first of these is not profitable enough, even on paper, to continue in an area like Mberere. The second two are potentially very useful experiments. There is a need to ensure that there is measurement of the effects of both, if they are to be meaningful. It is too early to judge the replicability aspects of the programme.

2. In planning the SRDP was the unexploited potential for development of each SRDP area adequately assessed?

The Plan notes that Mberere is a labour scarce, land abundant area and correctly proposes means of raising labour productivity, and the breaking of labour bottlenecks, through the health and water programmes and the development and application of medium level technology such as ox-ploughs and improved hand implements. However the cotton block project with its emphasis on raising yields per acre with high management inputs, and cotton generally with its low returns to labour, is inconsistent with the basic resource endowments of the area. Greater emphasis might have been given to Katumani maize and Mexican 142 Pea Beans in order to exploit the technical advance embodied in them. It is pleasing to note that the AI project has priority in the livestock programme.

3. Were the probable constraints preventing this potential from being maximally exploited adequately assessed?

The Plan does a good job of assessing the need for infrastructural improvements. With respect to constraints affecting production, the plan emphasises credit needs and the physical distribution of new inputs to farmers. It assumes that needed improvement in extension services will come about merely by increasing the numbers of extension staff and/or increasing their mobility.

The possibility exists that the main constraint to farm development is the farmer's feeling of uncertainty with respect to provision of food. With this in mind, a more sustained move towards the cash economy might be achieved, for some farmers, if the crop chosen for extension emphasis were Katumani maize rather than cotton. The reduction of the presently large yearly price fluctuations for food, which should follow wider adoption of drought resistant maize varieties, would encourage increased cash crop specialization by farmers at a later stage. Provision of tractor services for cash crop development may be an inferior strategy to concentrating on raising the productivity^{of} labour in food production which would release labour for cash crops. With respect to labour and employment, it is questionable whether the simultaneous expansion of two cotton projects with their competing demands for labour would not exceed availabilities. Indeed the assumption that unemployment exists, other than of a strictly off-peak type, is unwarranted. Rotational needs on cotton blocks were not accounted for.

4. To what extent are SRDP projects integrated or coordinated with on going programmes and to what extent have on going programmes been labelled SRDP?

Because there was little sustained development effort in Mbere prior to the SRDP, relatively few projects existed for SRDP to integrate or coordinate with. However, the crop programme represents an extension of on-going activities, and the proposals for improved distribution of agricultural inputs and a new credit scheme are useful. The SRDP programme itself is well integrated. What on-going programmes there are have not been labelled SRDP: most people are well aware of what is SRDP and what is not.

5. To what extent are the strategies and approaches designed to accelerate rural development in SRDP areas newer and more effective than those which they replace or supersede?

Cotton blocks are not new to Mbere but the SRDP cotton block programme differs in important respects from existing schemes, and is, therefore, not a continuation of an existing scheme. The important differences are (i) scale (ii) management level (iii) land is rented from the clan (iv) integration with the agriservice station (v) labour is all paid. It is doubtful whether the SRDP cotton blocks are more effective than those which they supersede. The traders' credit proposal is a new and useful departure, but its effectiveness is not yet known.

The improved distribution of agricultural inputs through the agriservice station is also a new and potentially useful proposal. The agronomic research programme is an important prerequisite to crop development, and the fact that it is a new venture illustrates the neglect that Mbere suffered prior to SRDP. The agriservice station through its intended application of medium level technology offers exciting possibilities for improving labour productivity at low cost. The whole infrastructure programme is to be commended, and will likely have an important, if long term, impact on development.

6. Are the implementation stages effective enough to try out these new strategies and approaches?

The cotton block programme was implemented before all the inputs planned for inclusion were at hand. As a result the project has been declared a failure for the wrong reasons. Delays in getting the agronomic research programme underway have hampered progress in crop development. Labour to dig the trench for the water pipe was paid at first but then recruited on harambee basis. As a result the project, which could have gained local support for the whole programme, is lagging behind. Insufficient attention is given in the Plan to the sequence in which projects can be implemented to secure optimum cooperation from the people.

7. Were the extra funds, staff, expertise, administrative costs, special training, equipment etc. estimated for and provided to SRDP areas inadequate, adequate or more than adequate?

Staff and financial needs of the SRDP programme are by and large correctly estimated in the Plan. However, nearly all the projects in the programme have been delayed for want of staff, part of which may be attributed to delays in constructing houses in Siakago and part may be because of recruitment from overseas. Those appointed early in the programme's life have been hampered for over a year by lack of transport, e.g. the beekeeper and the range assistants. Some of the original junior staff appointed have left: other have been transferred. Others do not like the heat and relative isolation of Mbere, which may indicate a need for inducement pay for "hardship" posts. Specific current needs are motorbikes for junior staff. The relatively large team of experts assigned to plan and implement Mbere SRDP is probably warranted in view of the seeming intractability of Mbere's problems, but a severe limitation of the NORAD team's effectiveness in getting the programme moving quickly was the gap of some months between the departure of the first planning team and the arrival of SRDP personnel to help implement the plan.

8. To what extent are the procedures, strategies and approaches devised for SRDP projects replicable in the country as a whole?

Unless cotton blocks can be shown to be profitable they are not replicable in other parts of the country. Their non-profitability in Mbere is not due to their experimental nature. However the agriservice station, although itself not replicable, could lead to the introduction of low cost medium level technology tools and equipment in other dry parts of the country. The findings of the agronomic research programme, particularly with respect to maize/beans mixture, could well be of use elsewhere. The water scheme is unique to Mbere but the system of payment for labour proposed in this report and the system of payment for water described in the Plan could be usefully replicated in other areas.

9. How effective has the role of the Area Coordinators, District Development Committees and the Ministry of Finance and Planning in its capacity of overall SRDP coordinator been?

Some of the delays in the programme may be ascribed to some initial misunderstanding of the whole SRDP concept by the Provincial administration. The switch from paid labour to harambee labour on the water pipe scheme is a result of direct intervention at the Provincial level. The District Development Committee has done a good job in redefining the operational programme for the agriservice station. At central Government level, planning officers have been enthusiastic in supporting projects, but occasionally the enthusiasm has been misplaced, as for example with the cotton blocks scheme. The area coordinator who arrived late on the scene has more than made up for lost time, and has been instrumental in pioneering the reporting system.

10. To what extent have local communities been adequately involved in the planning and implementation of SRDP and to what extent has this involvement been premature, timely or too late?

The attitude of central Government towards people involvement in SRDP planning tends to have been "how can we sell the project package to the people" rather than "how can we get the people's reactions to our first ideas and incorporate them in a revised programme." Some of the failures to involve local people are now manifest in the slow progress of the group ranches, and may possibly be a partial cause of the so called labour problems in the clearing of land for the cotton blocks, the slow progress with harambee labour in digging for the water scheme, and the limited involvement of local people in road construction. There is a need for full discussion with local people of the water pricing system described in the Plan, and more adequate coverage of their views before a new crop

priorities list is finalised.

SUMMARY OF RECOMMENDATIONS

1. That the cotton block programme be discontinued.
2. That the planners in central Government should apply time discounting procedures in their evaluation of projects.
3. That "axe-men" be appointed within planning ministries whose task would be to evaluate projects in stages subsequent to their initial vetting by planning staff.
4. That the crop research programme should investigate appropriate rotational systems for cotton.
5. That extension effort for cotton production on private plots be concentrated for the present in Mavuria location and Gangara sublocation of Nthawa.
6. That cotton trial plots be continued in other parts of Mbere, under high and low management systems, and that one season cotton planted in the long rains be tried in Mavuria on an experimental basis.
7. That the traders' credit scheme for insecticide and other agricultural inputs be implemented, and that its impact on (a) the level of sales and (b) the amount of credit given to farmers, be monitored.
8. That a selective credit programme for cotton farmers be run in conjunction with the traders' credit programme, with the objective of limiting the amount of time agricultural extension staff spend in administering credit.
9. That negotiations be entered into with BAT with the aim of removing the tobacco quota for Mbere farmers.
10. That Katumani maize and Mexican 142 Pea Beans be given priority in the crop development programme.
11. That the crop trials programme be accelerated by the secondment of additional staff, and that economic as well as agronomic data be recorded.
12. That the proposal to appraise and plan the development of Ishiara irrigation scheme be implemented, and that a system of tenure be worked out which will permit the eviction of tenants whose farming performance falls below agreed standards.
13. That plans for group ranches be held in abeyance until land questions have been resolved by the clans.
14. That the agriservice station project be implemented in accordance with the objectives set out recently by the planning group.
15. That funds be made available for the agriservice station manager to visit centres of research on medium level technology in other countries e.g. Tanzania, Uganda, Ethiopia.
16. That motor bikes be provided for the beekeeper and other AAs assigned to the SRDP programme.
17. That paid labour be used for digging the main water trench at the rate

of shs. 1 per metre, and that laterals should be dug by harambee labour.

18. That the proposed water pricing scheme be discussed with the local people.
19. That a baseline survey of present farming systems be carried out, along the lines of the Tetu and Vihiga surveys, and that use be made of the MFEP Farm Enterprise Cost Survey data in conjunction with other information to work out farm plans for modal farm situations in the main ecological zones of Mbere.

COTTON BLOCKS

STATED OBJECTIVES

Also B. M.S.C. as one of the objectives

"An experimental cotton blocks schemes should be launched, with fairly big blocks centrally managed and employing paid labour. The main purpose of the scheme would be its demonstration effect, to educate the farmers in proper farming methods and techniques with a view to raise production per acre but also to increase earnings per acre. Experimentation is needed here and one must move cautiously and very sensitively and learn from new as well as from past experiences." p. 17, Mbere Special Rural Development Programme.

"The proposed organized cotton blocks project.... is justified as a parallel, limited experiment in intensification and training i.e. a benchmark to test the main extension effort concentrated on individual farmers. As such the project will be closely tied up with the Machine and Training Unit and with the trials and research programme discussed below. The organized cotton blocks will be centrally managed and employ hired labour. The purpose of the project will thus be to increase production per acre by improved management, to educate the farmers in proper farming methods and techniques, and in a way to provide employment and increased earnings. The technology used must be labour intensive and adaptable to small holders. Each block should be at least 100 acres so that a part time assistant manager can be employed." p. 33, Mbere Special Rural Development Programme.

The blocks are to be located where population density is fairly high (to ensure adequate labour supply) and the land rented from the clans at shs 10 per acre per year. Five hundred acres are to be cleared in the first year (1970/71) and five hundred in the second year. The project is to be administered by a board of directors under the Ministry of Agriculture with a general manager in charge based in Siakago.

EVALUATION OF PROJECT AS PRESENTED IN PLAN

TABLE 1. Costs-Benefits of the Cotton Block Scheme

(all figures taken from p. 34 of the Plan (£))

Year	Benefits	Capital Costs	Clearing	Staff	Field	Total Costs
1970	-	6,590	5,000	2,275	8,125	19,400
1971	11,250	-	5,000	2,275	16,250	23,525
1972	22,500	-	-	2,275	16,250	18,525
1973	22,500	-	-	2,275	16,250	18,525
1974	22,500	-	-	2,275	-	2,275
Total:	78,750					84,840

As the above figures show, the cotton block scheme does not break even in cash flow terms, even at a zero discount rate. As these figures are those presented by the planning team, (although not set out in this form) they are guilty of not making explicit that the project on their own assumptions is a loss maker.

The question arises as to whether a strictly financial analysis of the project is appropriate, as the project is stated to be of an experimental nature and one which would have demonstration effects. The project can hardly be justified on these grounds because the demonstration effects of the cotton block scheme would likely be less than if the staff employed used more conventional means e.g. straight demonstration plots, visits to farmers. In this connection it must be noted that those employed on the blocks would be unlikely to have private cotton plots of their own because if they had they would be busy with their own cotton.

Do the employment implications of the scheme justify it? Working back from the labour cost figures, we see that the following income would accrue to labour over time:

1970/71	shs 100,000	clearing	shs 100,000	planting	weeding	harvesting
1971/72	100,000	clearing	200,000
1972/73	-		200,000
1973/74			200,000

Converting these cash figures to jobs for casual workers, we find that clearing would employ about 500 people in each of two years for about three months; the field operations would employ about 500 people for another three months in the first year and 1000 people for three months thereafter. As budgeted the scheme would be quite labour intensive as somewhat in excess of half the costs of the project would accrue to labour as wage income.

Given that the assumptions of the planners yield a loss making project in financial terms; are their assumptions correct or have they been unduly pessimistic? The yield assumptions of 1100 lbs per acre are high in comparison with what has been achieved by individual farmers, and are only a little less than those that have been achieved in fertiliser trials in the area. It may be that given the levels of management prescribed in the plan these yield targets are not too high, but on the other hand they are certainly not pessimistic. More disturbing is the implicit assumption that cotton can be grown four years in succession on the same land. More land would need to be cleared if the benefit stream were to be maintained, because cotton needs to be grown in rotation if pests are to be controlled adequately and soil fertility maintained. The plan does not give any indication of a rotational system, which would likely reduce the stream of benefits.

Thus we must conclude that while on its own assumptions the cotton block scheme is a loss maker, a realistic assessment of its prospects suggests that it would be even more of a financial loss, and that the non-financial benefits that might be expected from the scheme are of insufficient magnitude to make it worthwhile.

June 1969

PLANNING CHRONOLOGY

Main possibilities for Plan sketched by PPO in letter to Treasury, including expanding cotton production among other crops. No mention of blocks.

Treasury writes to PPO to limit the role of NORAD planning team in Mbere Plan preparation.

August 1969

Treasury questions cotton blocks and asks "should not the main emphasis be on extension for private plots?"

Purpose of cotton blocks is seen to be

- (a) an experiment in hiring labour
- (b) to fit in with the agri-service station
- (c) high efficiency production e.g. as a benchmark for monitoring progress of private plots.

October 1969

Jon Morris who has carried out considerable research in Mbere writes in private capacity to Treasury advising do not start with projects that have failed before, instancing cotton.

Ministry of Agriculture in commenting upon draft Plan proposals observes that Mbere is a labour scarce, land abundant situation which implies need for extensive methods of production. "Cotton blocks should clearly be regarded as an experiment only. Since there are a number of technical problems involved in growing cotton, one purpose of the cotton block experiment should be to train people in crop husbandry."

Treasury commenting upon draft Plan proposals approves cotton blocks as an experimental programme "it is known that cotton has innumerable problems, and any method that can contribute to solving them would be a breakthrough", but stresses need to monitor costs and inputs etc. if the experiment is to be useful.

Ministry of Agriculture memorandum states "A cash crop production scheme for cotton is proposed on an entirely experimental basis, because for various reasons cotton blocks have not had much success. In order to improve management it is proposed to experiment with cotton blocks which will be centrally managed and employ hired labour. The purpose of the scheme will not only be to raise production per acre but also to educate farmers in proper farming methods and techniques."

November 1969

Meeting between HQ and Provincial Staff which reached a concensus that cotton on individual plots should come first, with cotton blocks as a limited experiment in intensification and training.

Treasury asks who is to manage blocks?

Ministry of Agriculture suggests Cotton Board, and prepares partial financial appraisal aimed at selling project to Cotton Board.

December 1969

Mbere SRDP Plan comes out.

September 1970

Brokensha (area evaluator) noted (5)

"The Plan favours cotton blocks managed by the agricultural department, but the picture has, I think, changed since the report was written. In the last harvest (1969) much of the cotton crop was grown on blocks that had been managed by a group of individual farmers under the supervision of the agricultural department. The system is simple and seems worth expanding rather than trying larger blocks that usually fail, especially for lack of labour at picking time. A group of farmers come together, sign for a loan which covers costs ploughing (shs 50 per acre + 5% interest) and insecticides (shs. 68). Average size of these blocks in Nthawa is 20 acres. Agricultural staff supervise to see that weeding, spraying (seven times) and harvesting are done at proper time: then when the crop is sold they recover the loans."

January 1971

Ministry of Agriculture memorandum giving evidence of cotton yields in Mbere from three sources: demonstration fields, fertilizer trials, individual farmer yields, over period 1967-1969. Figure chosen for blocks was 75% of mean yield on research trials.

February 1971

Ministry of Agriculture recalculate costs/returns from project to Cotton Board on basis of higher yield figures (approximately twice those assumed earlier). Cotton Board requested to provide capital for revolving fund, legal umbrella, accounting services. In return Cotton Board receives monies from NORAD to cover costs of land clearing and ploughing costs, and for salaries of managers as well as revenues from the project. Ministry of Agriculture calculations assume that cotton yields will increase in years 4 to 5 following fertilizer application. Land clearing costs "have not been included since these will be covered by a grant."

March 1971

Memorandum from Belshaw (IDS) to Treasury, criticising cotton blocks on following grounds:

- (a) management availability not assessed
- (b) clearing costs need to be included in calculation of costs/returns
- (c) cotton can't be grown on same land for five years because pests and disease build up
- (d) replicability
- (e) need to quantify employment benefits
- (f) yield assumptions
- (g) cost/benefit ratio likely to show negative returns

May 1971

Cotton Board agree to administer cotton blocks. DAO to manage in first year.

June 1971

Ministry of Agriculture memorandum to Treasury seeking release of funds.

"The cotton block programme is designed to test out in a relatively large scale operation the feasibility of certain methods of utilising hired labour and of organising the timely supply of inputs such as machinery, insecticides and so on."

July 1971

Land clearing begins.

October 1971

Acreage target reduced to 280 acres after clans fail to donate other 220 acres.

November 1971

178 acres cleared, 169 acres ploughed. Cotton Board declares blocks a failure. Land returned to clans for individuals to plant their crops.

December 1971

Ministry of Agriculture memorandum outlining possible reasons for failure. Four possibilities distinguished:

- (i) weaknesses in planning "the proposals lacked a sound technical base".
- (ii) overoptimistic about supply of labour.
- (iii) management was inadequate.
- (iv) agronomic assumptions were wrong.

NORAD memorandum on causes of failure, distinguishes five factors:

- (i) agriservice station not in operation
- (ii) organization was inadequate
- (iii) assistant managers had no transport
- (iv) the delay of the rains hampered ploughing
- (v) lack of spirit

NORAD recommends (a) purchase of crawler tractor for stumping and land clearing (b) agriservice station should administer credit for the blocks (c) the scheme should be non-profitable but self-supporting with the objectives of (i) providing paid work for the unemployed and under-employed (ii) demonstration (iii) produce more cotton.

January 1971

Ministry of Agriculture recommend that cotton block scheme should be abandoned because the Cotton Board is unwilling to administer it and there is lack of people involvement with project. Instead efforts should be concentrated on demonstration plots and trials for cotton and Mexican 142 beans, and the agriservice station tractors to work on private plots.

NORAD agrees that crawler tractors inappropriate but wants to try cotton blocks one more time when agriservice station is fully operational.

EVALUATION OF THE PLANNING PROCESS

We consider here some of the limitations in the planning process of SRDP Mbere evidence by the chronology of events associated with the cotton blocks. We may note first that Treasury was concerned that the NORAD planning team for Eastern Province should not be too much involved with preparation of Mbere SRDP. The reason for this was likely that Treasury wanted the NORAD team to get on with planning Eastern Province. Another possibility is that as an expatriate team they would have little familiarity with the local situation of Mbere, and hence put forward proposals unlikely to

succeed. An expatriate planning team might also be under certain pressure from their own Government to come up with projects that will allow money to be spent; in the language of SRDP, capital intensive rather than idea intensive projects would be chosen.

We do not know how large an input the NORAD team put into the Mbere SRDP Plan, although the Plan itself was published under the Eastern Province Planning Team's auspices. Many of the proposals in the Plan are those sketched out in an early letter to Treasury from the PPO. He did not mention the cotton block scheme in this letter however, and one suspects that it was the idea of the NORAD team.

The reaction to cotton blocks within Government was generally luke warm. But the manifestation of this lack of warmth was to emphasise the experimental nature of the project (after all, SRDP is experimental) and to point out that it should be secondary to the main effort for cotton, the expansion of private plots. Even when sound reasons against the project were advanced by Belshaw, there was no check to the programme. Three comments on this phase are in order.

1. In nearly all discussions of the cotton blocks scheme mention is made of its experimental nature. Nowhere however is there a clear explanation of the nature of the experiment that was to be carried out. In the next section this contention is substantiated.
2. Down grading the cotton blocks scheme so that they should be secondary to the main cotton programme was only mentioned on paper: no scaling down occurred. Nowhere were possible conflicts between the two programmes in terms of labour, extension availability, etc noted. As an experiment the scheme remained a large and expensive one.
3. Government did not screen the project when it first came to them using the techniques that are normally applied to such projects e.g. cost/benefit or internal rate of return calculations. Critical comments received from an outsider emphasising the need for proper appraisal, as well as shedding doubt on critical assumptions of the scheme, were dismissed, instead of motivating a re-appraisal. It would seem that once a project has achieved a certain momentum (not a very high one) it is immune to attack from outside. The reason for this may be that those who initially have the responsibility of appraising a project then become responsible for implementing it and do not care to hear adverse comment on "Their project". People who oppose a project at this stage cannot be "development-minded". In this case once the Ministry of Agriculture and Treasury had commented upon the cotton blocks proposal they became committed to it and then tried in turn to "sell" the project

to the Cotton Board. The initial reluctance of the Cotton Board to take it on was commendable because apparently they saw that it was not worthwhile. Eventually they did agree to administer the programme after it had been apparently demonstrated to them that yields twice those originally proposed could be achieved in Mbere. They too did not submit the project as a whole to a proper appraisal.

After the Cotton Board had declared the blocks a failure, the Ministry of Agriculture began to question some of the assumptions underlying the project. Some of the emphasis of that enquiry was directed towards reasons why the blocks failed operationally (labour and management problems) rather than a re-evaluation of the project on paper. It is important to realise that the test of the project was not on the ground. It should not have got to the operational stage in the first place. Failure to recognise this may lead to additional pleas to let us have one more try "because before we did not have the agriservice station etc."

CONFLICTING OBJECTIVES

In this section we list ten objectives abstracted from the various documents relating to the cotton blocks, and for each raise queries about its relevance to Mbere SRDP.

1. Objective: An experiment in hiring labour, test feasibility of utilising hired labour.
Query: Other projects in the programme e.g. the water and roads projects, provide opportunities for experimenting in hiring labour at different rates of pay and at different times of the year. This is interesting if the purpose is to find out the supply price of labour and/or to find out if there is an absolute surplus of labour in the area, if, for example, labour can be hired at peak times at the going agricultural wage.
2. Objective: To fit in with the agriservice station.
Query: To provide a partial justification for the agriservice station (i.e. to find something for it to do) is valid only if the blocks scheme is profitable and the services of the agriservice station are at unsubsidised rates.
3. Objective: To achieve high efficiency production, increase production per acre by improved management.
Query: Economically efficient production cannot be achieved if the project is a loss maker, although technically efficient production might be. Raising yields per acre may not be appropriate in a land abundant situation.

4. Objective: As a benchmark for monitoring progress of private plots.

Query: Progress in cotton production on individual plots can be monitored in other ways e.g. by comparing an individual's production with the average, or by comparing with yields from demonstration plots and fertilizer trial plots, and observing trends over time.

5. Objective: To train people in crop husbandry, a limited experiment in intensification and training, educate farmers in proper farming methods and techniques.

Query: The training function can only be argued if it is put in a time perspective, with labourers on the cotton blocks in one year becoming cotton growers on their own account subsequently, as it is unlikely that farmers now growing cotton would have time to work on the cotton blocks. But even so it is questionable if the cotton block project would be a more effective means of extension than conventional methods e.g. demonstration plots. One reason is that workers on large scale operations do not necessarily relate what they observe there as applying to their own small plots. Secondly, the methods used in large scale operations may not in any case be appropriate to small plots.

6. Objective: To solve cotton production problems.

Query: While it seems that the rules of good husbandry for cotton are known, as evidenced by the relatively high yields obtained on trial and fertilizer demonstration plots, insufficient attention has been given to their application within the context and constraints of the small farm. Solutions are unlikely to come from large production units.

7. Objective: To improve management

Query: The improvement of management for cotton blocks is only an objective if the scheme is a success and there is a need for replication. Hence there is an element of circularity in putting this forward as an objective of an experimental programme.

8. Objective: To test the feasibility of organising the timely supply of inputs such as machinery and insecticides.

Query: To establish the feasibility of getting inputs on time to large blocks does not help much in knowing how to get the same inputs to numerous small plots.

9. Objective: To provide paid work for the unemployed, to provide employment and increased earnings.

Query: Providing employment is a valid objective in itself but could conflict with the other cotton programme which takes priority over blocks i.e. if blocks hire a lot of labour this might hinder the achievement of acreage and production targets on private cotton plots.

10. Objective: To produce more cotton.

Query: A valid objective as long as the scheme is financially sound which it is not.

THE AGRICULTURAL LABOUR MARKET SITUATION IN RELATION TO THE
COTTON BLOCKS.

This section of the report is written in response to a request from the Ministry of Agriculture to:

1. Identify the major determinants of demand and supply in the agricultural labour market of Mbere, and in particular to ascertain the extent to which the apparent lack of success of the cotton block scheme may be attributed to labour market constraints as opposed to other factors, in an area generally thought to be one of underemployment.
2. Quantify as far as data sources permit the seasonal labour requirements of cotton in Mbere in relation to the labour requirements of other crops and the family labour availabilities of typical farms.

Demand for wage labour in Mbere emanates from larger farmers who have cash crops, and who often have an off-farm source of income. The pattern of labour requirement is determined by the agricultural calendar. Peak months in normal rainfall years are April and November for weeding and August for land clearing and preparation. The supply of wage labour to small scale agriculture comes mainly from small farmers who have holdings of two acres or less who are without an off-farm source of income, and school children who work to pay their fees. Unemployed school leavers generally do not find agricultural work attractive or consistent with their aspirations. Sometimes the supply of labour is supplemented by Wakamba from the drier parts of Machakos who have experienced crop failure. Drought in Mbere affects both the demand for and supply of labour: crop failure means a shortage of money to hire people, while food shortage means strong incentives to find work.

Employment is typically on a casual basis i.e. payment for a day's work, and often for piece work with rates of pay in the range shs. 2 to 3. Piece work rates for weeding are shs. 1 for a 10 x 10 strides area of middle size weeds. Rates of pay vary with the task: for example shs. 2.50 per day for heavy weeding, shs. 2.00 per day for light weeding, and shs. 2.50 for bush clearing. The money payment also takes into account payment in kind: for example, shs 2.50 per day without lunch, shs. 2.00 per day with lunch. People on piece work can earn as much as shs. 8 per day. In times of drought payment is often fixed in terms of quantities of maize or millet (one debe of maize per day's work) i.e. wages are fixed in real terms since in times of food shortage food prices rise. Only farmers with another source of income can afford to hire workers on a regular basis e.g. local chiefs, school teachers and shopkeepers. Rates of pay vary according to the strength of the worker (from shs. 35 to 85) and the task: cattle herders only get shs. 15 to 30 but these are likely to be children.

Children are also employed at shs. 15 per month to chase pests like ground squirrels and antelope.

People from outside the division who come looking for work are not discriminated against, and in some cases are preferred to local people "as they will not go home in the middle of the day to cultivate their own shambas." Beer parties (wira) are held for some tasks such as house building and bush clearing, but since many of those who come do little work and start drinking early in the day the practice is declining in popularity. Some farmers maintain that you get better value for your money employing wage labour. There is some division of tasks according to sex: women's tasks include collecting grass for thatch, cultivating, harvesting, carrying crops and water: men's tasks include house building, bush clearing, thatching, guarding crops at night; children look after cattle, weed, guard crops during the day.

Data from the 1970/71 Farm Enterprise Costs Survey of the Ministry of Finance and Planning give additional information on the distribution of hired and family labour inputs through the year by crop. Annual labour **inputs** for maize and beans averaged 85 mandays for a sample of 53 farms in Mbere. Peak months were April, August and November. Annual labour inputs on cotton averaged 77 mandays for 18 farms. Peak months were August, June, July for harvesting and November (planting). The relatively low labour inputs for cotton are a reflection of the low yields, and that land preparation for cotton is more likely to be mechanized than for food crops. In the sample only three farms hired labour for maize and beans and no hired labour input was recorded for cotton. Cotton acreage averaged 1.3 acres and maize and beans 1.6 acres. On the basis of this data a labour profile for a 'typical farm' has been constructed assuming a land use pattern of 1.5 acres of maize and beans, $\frac{1}{2}$ acre of "other crops" and one acre of cotton (Figure 1). It may be noted that the addition of cotton to the food enterprises exaggerates the peak labour months of April, August and November, which casts doubt on whether cotton really complements other crops in terms of its labour requirements. Nonetheless, if we assume a 'typical farm' family of two adults and three children, whose basic food requirements should be met from the maize/beans acreage, the labour availability should be sufficient to cover the peak monthly demand of nearly 40 mandays, even when allowance is made for schooling and one child looking after the cattle.

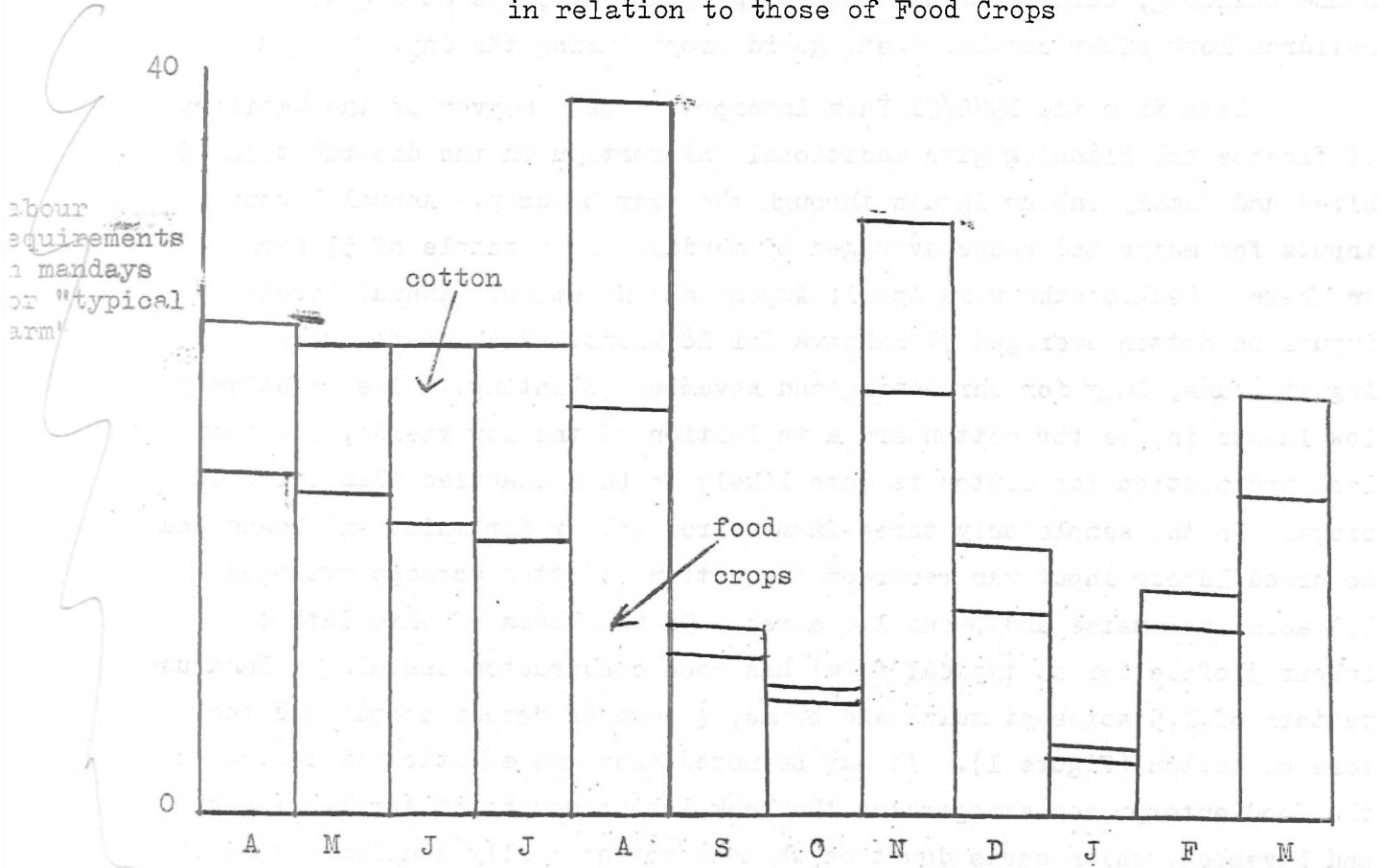
Caution is needed in using one year's labour inputs in an area like Mbere where the timing of the rains (both long and short) can change the pattern of labour distribution through the year. For example in the present year the delay in the arrival of both the long and the short rains meant that cultivation of food crops was late and cotton matured

early with the result that in May farmers were weeding their food crops leaving cotton unharvested.

Attention too should be given to the existence of the two rainfall regimes in Mberé viz. that in the north eastern corner (Evurore) the main rains occur in the second half of the calendar year, which influences the seasonal pattern of labour requirement.

We may conclude that in most parts of Mberé labour needed for work on cotton blocks has a positive opportunity cost not just in terms of foregone leisure but also in terms of foregone production i.e. private and social opportunity costs are positive.

Figure 1 Labour Requirements of Cotton in relation to those of Food Crops



source: MFP Farm Enterprise Cost Survey 1970/71
For full explanation, see text.

To summarise, the features of the agricultural labour market situation in Mbere of relevance to the cotton block scheme are:

1. There is no outright unemployment in Mbere because there is no landlessness. Most people work on their own shambas with smaller farmers occasionally supplementing their cash income at peak times by working for other larger farmers. Willingness to work is greater at weeding time than for land clearing which follows harvest.
2. The problem of unemployed school leavers which exists in Mbere as elsewhere is unlikely to be solved by the cotton blocks.
3. The local wage labour force is supplemented by migrant workers from drought areas on an irregular basis, and by schoolchildren in school holidays.
4. The demand for labour varies with the crop calendar with peaks at weeding and land clearing. The crop calendar in turn varies between years with the timing of the rains, but cotton generally does not complement the existing pattern of labour use.
5. Wages paid in small scale agriculture average shs 2 to 3 per day. Casual employment on a daily basis is much more common than regular employment with wages paid monthly.
6. The supply curve of wage labour seems to show marked price elasticity. This is evidenced by the large number of farmers who congregated around the Kamburu dam site in anticipation of work at a daily rate of shs. 6.00 per day in the second half of 1971, and the progress made in digging the water pipe trench when rates of pay were shs 3 per metre and workers were taking home up to shs 10.00 per day.

Given these considerations it seems unlikely that the daily wage rate of shs 3 per day assumed for the cotton blocks in the Plan would attract sufficient labour, especially if planned targets for expansion of private cotton production were met. At a daily wage of shs 5 per day it is likely that labour would be readily available but this rate of pay would make the project even less attractive financially and lead to non-optimal allocation of labour within the Mbere economy.

COTTON PRODUCTION ON PRIVATE PLOTS

STATED OBJECTIVES

The SRDP for Mbere envisages the following rate of expansion of cotton acreage over the period 1969/70 to 1973/4.

	private	blocks ⁺	planned total	actual total
1969/70	2,500	-	2,500	2,500
1970/71	3,000	500	3,500	n.a.
1971/72	4,000	1,000	5,000	1,747
1972/73	5,500	1,000	6,500	
1973/74	7,000	1,000	8,000	

⁺ SRDP blocks

The increase in acreage on individual plots is to come about "by a greatly improved input service and an intensified, well organized extension." "The distribution of seeds and insecticides is to be reorganised to ensure that the farmers receive these inputs at the right time. To do this it is necessary to use local traders in Mbere. (New and additional traders) should be appointed as a sort of middlemen and would be within easy reach of most farmers. To strengthen their financial positions to make them able to keep necessary stocks and to give some seasonal credit to the growers, the Ministry of Commerce and Industry is to make available to them short term loans for this purpose."

On the extension side: "it will be necessary to appoint a Divisional Cotton Officer to Mbere and to increase the number of cotton assistants so that each looks after about 250 acres of cotton. Courses geared to satisfying the immediate needs of the farmers will be organized at District Development Centre, Embu. Field days and demonstrations will also be held under the aegis of the cotton blocks scheme."

To overcome labour bottlenecks, the water scheme will release labour from carrying water at land clearing time, tractors from the agri-service station will plough land, and oxen will be used in ploughing and weeding.

PLANNING CHRONOLOGY

June 1969

Main possibilities for Plan sketched by PPO in letter to Treasury including possibilities of expanding cotton production among other crops.

October 1969

Jon Moris says "do not start with projects that have already failed, e.g. cotton". Meeting between HQ and Provincial planners. Agree that cotton plots should have priority in SRDP crop programme.

December 1969

Mbere Plan appears with ideas for improved credit and distribution of cotton seed and insecticides etc. through loans to traders administered by Ministry of Commerce and Industries. NORAD to provide the money.

November 1970

Scheme for insecticide and ploughing loans worked out by Ministry of Agriculture.

AFC to administer the programme

NORAD to provide the money

Agriservice station to do ploughing and distribute insecticide to traders.

Steering Committee to make loans to traders and farmers (ploughing).

Agricultural extension staff to suggest suitable farmers.

Traders to make loans or sell insecticide to farmers.

Cotton buyers to deduct insecticide dues from sales receipts.

Rationale: "since the trader is the one who receives the actual loan it will be up to him to collect from the farmer and repay to AFC and it is expected that the traders' profit motive will provide sufficient incentive for him to do this."

February 1971

Ministry of Agriculture discovers that Cotton Board has been giving credit to cotton farmers in Mbere through the extension staff: proposes that present system continue, with SRDP "simply looking for ways to assist their operation."

March 1971

Cotton Board having lost considerable money on loans to individual farmers unwilling to continue loans. Ministry of Agriculture return to original idea of advancing credit through AFC.

June 1971

Ministry of Agriculture present case to AFC. AFC negative: "they produced figures which they said showed that cotton farmers would end up with less net cash income if they used insecticide and proper management than if they simply cultivated cotton in their traditional way. In other words they felt that cotton was not a sufficiently well paying crop in Mbere to make ^{it} credit economic from the farmer's point of view."

October 1971

Planning Division Ministry of Agriculture proposes a subsidy on sprays and pumps arguing that

- (i) high inputs cotton production is high risk production; therefore the sponsoring agency should be willing to take part of the risk
- (ii) administrative costs of a subsidy programme are less than a credit programme
- (iii) an "economic" case can be made "because the value of the extra cotton is likely to be greater than the subsidy".

November 1971

The subsidy proposal fails to gain support from other divisions within the Ministry of Agriculture.

EVALUATION OF PROJECT AS PRESENTED IN THE PLAN

The opening sentence of the section of the Mbere plan on cotton states that numerous efforts in the past to introduce cotton as a major crop in Mbere have proved unsuccessful, and that past attempts have been too much concerned with setting of targets, and too little in understanding the situation of the individual farmer. With respect, it might be said that the same mistakes have been made by those who prepared the Mbere SRDP.

Aldington (2) has commented in relation to the slow growth of cotton production in the country as a whole that "the main reason is simply that with current standards of husbandry and prices, farmers generally do not find it a rewarding crop to grow. For example, data in the 1969 Annual Report of the CLSMB reveal that the average gross return per acre of cotton was only about shs. 81 in 1969 implying a yield of around 160 lbs of seed cotton, and shs 63 in 1968." The SRDP plan begins calculations of grower returns from cotton by saying that a good grower has obtained over 1,000 lbs of seed cotton per acre, and assumes that average yields will be in the range 750 to 1000 lbs per acre. These yields seem to be optimistically high, in view of past yields on private plots in Mbere averaging 200 to 300 lbs. per acre. The interesting point however is that even with yields of 1000 lbs an acre the gross margin calculations made in the Plan show a return of only shs 325 per acre without accounting for hired labour. If yields of only 300 lbs per acre are obtained using sprays and tractors then the gross margin and the return to labour fall to zero. That low returns from cotton are obtained in Mbere is evidenced by Erokonsha who comments after witnessing payments for cotton in 1970 "the agricultural staff were authorised to collect the loans at the cotton

markets, taking up to half the money received by farmers, but in most cases this amount was far too little to repay the loan--some received shs. 6, one got shs 2." Linear programming studies of an ecologically similar area (Masii, Machakos) led Judith Heyer (3) to conclude that:

"For farmers who are preoccupied with returns in years when rainfall is low, cotton is hardly attractive at all, representing very little improvement over traditional food crop systems in the overall level of returns, and involving a greater year to year variability than these. For farmers whose main concern is with the outcome in high and average rainfall conditions, though, cotton represents both some overall increase in returns and a lower variability than traditional food crops do. These farmers ... would do well to grow 1 to 1½ acres of cotton, together with traditional food crops, but not to give it preferential treatment compared with food, except when farm labour is very plentiful relative to land. Whether farmers will think the increase in returns offered by cotton sufficient to compensate for the additional work involved is another question, though." Discussion with the JAA for Riandu sublocation suggests that farmers in Nthawa at least do not think so. They say "If Government wants us to grow cotton why don't they pay us higher prices. After all cotton is a product with so many uses: for soap, clothing and animal food, surely they can give us higher prices. Tobacco is even harder work than cotton but it gives us some hundred shillings. With cotton one ~~hardly~~ gets enough to pay taxes let alone school fees."

As far as one can gather the planning team did not look in detail at how cotton might fit into the typical farming system of Mbere, as Judith Heyer did in Masii, other than by casual assertion that the labour demands for cotton are complementary to the existing cropping patterns.

As we have noted in the section on cotton blocks the addition of cotton to present food based farming systems is likely to exaggerate labour peaks rather than complement them.

Attempts to simulate whole farm enterprise situations might have revealed, that a crop like green grams for example, which yields twice a year, gives higher returns to both labour and land. Insufficient recognition was given as well to the difficulties inherent in introducing an innovation like cotton into an area which is not blessed by high or reliable rainfall. There is an extra difficulty in introducing new crops into an area like Mbere which is not found in high rainfall, high potential areas.

In the latter areas introduction of a new crop may proceed in two stages. First, get the farmers to grow the crop. If they grow it they will likely receive sufficient returns to be attracted to it. In the second

stage extension workers can concentrate on raising husbandry standards to point of maximum return. With cotton in Mbere there is really no possibility of a two stage approach. If the farmer is to find cotton worthwhile he must adopt the crop and the correct husbandry at the same time; otherwise there will be low yields, failure to cover costs, and rejection of the innovation.

With such low profitability in terms of returns to land and labour it would seem incumbent on the SRDP planners to indicate how yields more than twice those previously achieved could be obtained. While the planners seem to have identified the crucial bottlenecks of extension and the physical and financial availability of supplies, one is not convinced that the measures proposed will lead to the dramatic increase in yields which would in turn make cotton a sufficiently profitable crop to justify the projected acreage increases. One reason for suspicion is that for years past the CLSMB had provided credit to individual farmers for ploughing and spraying; a scheme administered by the extension staff of the Ministry of Agriculture. It seems unlikely that the new credit scheme proposed by the plan would achieve a significantly greater coverage of farmers than the CLSMB scheme, although it would free extension staff from the time consuming administration of loans to their proper task of extension.

In this connection, Brokensha and Nellis (6) have made the following comments:

"Cotton loans have been given to Mbere farmers each year for the past several years. The details vary: in 1969/1970 for example, loans were available to 295 farmers for ploughing and to 523 for insecticide (includes farmers on cotton blocks). In 1970/71, 140 farmers have obtained ⁿ insecticides valued at ~~sh~~ 71 per carton (enough for one acre). The agricultural staff have already spent and will in the next few months continue to spend what might be considered a disproportionate amount of time on cotton loans, especially as the loan acreage represents only about 5% of the total cotton acreage in the division. The staff do the following: select farmers by recommending those who have had no previous loans (or who have repaid past loans) and who are good farmers, with adequate labour supply; help recipients to buy or borrow pumps for spraying insecticide; this may involve pump repair and distribution; and recover loans at the end of the season, a highly unpopular and difficult task."

Elsewhere they note:

"One wonders whether the whole business of loans should be handled by another agency or agencies, and indeed the Mbere SRDP envisages an ingenious system of loans to approved traders who will then give credit to approved farmers. Under this scheme the agricultural staff will be required to

complete forms for all applicants for loans, based on the supposedly intimate and accurate knowledge that JAAs have of their local farmers."

Acreage targets apart, the proposal for a restructuring of credit for ploughing and sprays is useful for two reasons. First, the losses made on these loans by the CLSMB who obtain the money from APC have been so great that they are no longer willing to advance credit. Second, as we have just noted, an enormous amount of time of extension staff has been used in administering credit without any conspicuous success in achieving repayment of loans. This is bad for two reasons: first, if the extension worker becomes a collector of debts he is alienated from the farmers he is supposed to serve; second, time taken up with compiling long lists of debtors is time not put into extension. The proposal to channel credit to farmers through traders has merit in that it enables more traders to carry larger stocks of fertilizer, insecticide and seed, for which there is need in Mberere. Whether the traders will actually make loans to farmers in the absence of security is questionable. The experience of Migori with a similar scheme suggests the loan impact will be slight.

In visits to Mberere we were told that main distributors had been encouraged to bring supplies to local centres, but the traders had only purchased about half the AAO's estimates of needed supplies for the area. In Kericho we were impressed by the fact that if a farmer wanted to use fertilizer or insecticide then he would have to arrange to bring it from Tambu for himself some 30 miles away. The cotton AA in Siakago told us that he usually takes with him on his visits to Ishiara a couple of cartons of dawa, to help improve distribution.

Such findings bring to mind the recommendations of the Havelock Committee Report on the Costs of Agricultural Inputs; particularly those relating to distribution of material inputs e.g. That traders registered with the Ministry of Agriculture should have increased access to short-term credit from the ICDC to enable them to purchase sufficient stocks at the right time to sell to farmers.

EVALUATION OF THE PROJECT ON THE GROUND

Little if any progress appears to have been made in implementing the proposals for increased credit, distribution of inputs and improved extension. Cotton extension staff at the AA level are stationed at Kiritini, Siakago and Ishiara (Kiambere?) but they are not additional to normal extension staffing. Acreage under cotton this year is well below target at about 1750 acres of which only 1500 acres remains following drought. One reason for the low acreage planted this year relative to 1969/70 is cotton's disappointing performance in 1970/71 when weather conditions were again unfavourable. The late onset of the long rains this year has meant

that some cotton has matured early and has ceased to produce new bolls, so that yields on average are unlikely to be very high. On two of the original non-SRDP cotton blocks close to Siakago there is no cotton, but tobacco and food crops are being grown.

A cursory inspection of stockists' stores in Siakago revealed an absence of insecticide. Supplies seemed to be short in Ishiara and Kiritiri as well. No stockist had been appointed in Kerie.

As mentioned above, the loans for cotton this year have been restricted by the CLSMB to \$s 10,000, aimed at serving the 'best' 200 farmers. Meanwhile the JAAs have been urged to make every effort to collect previous years' loan repayments. Demonstration plots continue on 'better' farmer's shambas but again these are part of normal extension activity. Last year we saw a MORAD cotton demonstration plot at Kiritiri. The cotton officer (AA) at Siakago has recently moved after one year in post to be assistant manager of a well known hotel in Embu and his replacement is fresh out of Egerton. The AA in charge of the small cotton demonstration plot on the country council part of Ishiara irrigation scheme has also moved back to Embu division, although still with the Ministry. If Mbere is unpopular with extension personnel it might be worth paying a small bonus to staff there (a discomfort allowance) to encourage staff continuity.

RECOMMENDATIONS

Instead of aiming for ambitious production and acreage targets by getting farmers to grow cotton in all parts of Mbere, extension effort for cotton should be concentrated in those areas where it is known to grow well i.e. Mavuria location and Gangara sub-location of Nthawa. Meanwhile cotton observation plots should be continued in all parts of Mbere by the SRDP agronomist with the aim of identifying other areas where cotton does well. Each observation plot should be subject to a low and a high husbandry treatment, so that the differences between potential and probable farmer yields may be ascertained. A limited credit programme should continue in Mavuria to supplement that which individual farmers might be able to obtain from traders. The essentials of this limited farmer credit programme are sketched below.

We can distinguish three types of farmers with respect to credit needs:

- (a) those with sufficient income and cash flow not to need seasonal credit. They however are the farmers who are most likely to be the recipients of credit following the criteria set out for selection of farmers by the DAO in 1971/72.

- (b) farmers other than (a) who can achieve husbandry standards sufficient to generate income to pay back loans and still give a reasonable return to their labour.
- (c) farmers who in a normal year cannot produce (because of management, location or labour constraints) a crop with yields greater than say 400 lbs an acre with material inputs. These farmers should not be advanced credit because they are unable to gain sufficient return with the use of material inputs to pay for them.

Sufficient information in local agricultural files on farmer performance coupled with local knowledge exists to group farmers into these categories. Group (c) farmers could be identified in part by past repayment performance and JAAs' knowledge of their cotton yields. Group (a) farmers would include farmers who have off-farm sources of income: i.e., extension staff, chiefs, teachers, shop and bar owners.

Credit would be given in the first year to group (b) farmers. Farmers in group (b) who failed to repay loans in the first year would become ineligible for further credit. Farmers in group (c) who expressed willingness to continue growing cotton could apply to have a demonstration plots. Under the present arrangements the costs of ploughing, insecticide and fertilizer are met by the agric. department, and these would be provided. If the farmer showed in the year of demonstration that he was able to provide the complementary inputs necessary to achieve yields say of 600 lbs an acre in terms of labour for weeding, application of inputs and harvesting, then he would be moved into group (b) and become eligible for credit in the following year. The only element of flexibility in the programme would be if there was an exceptionally poor year for cotton, in which case the loans would be written off as development costs, and farmers with demonstration plots could apply for a repeat demonstration plot.

The advantages of the proposed system over the present arrangements are as follows:

1. credit would not be given to farmers who do not need it i.e., those who have sufficient capital to be able to finance the costs of ploughing and insecticides.
2. credit would not be advanced to farmers who have shown by past experience that they cannot achieve levels of husbandry sufficient to cover loan repayment.
3. opportunities would be provided to farmers who have a poor repayment performance to demonstrate that they can achieve adequate yields in which case they would have one more chance to obtain credit and repay it.

4. demonstration plots would be arranged on farms where the need for demonstration is greatest.
5. the extension staff would be freed of the responsibility of chasing defaulters; the responsibility for repayment would be that of the farmer in the knowledge that if he did not repay credit would cease in the following year.
6. an increasing proportion of farmers would obtain supplies through local traders paying cash on the nail.

OTHER ASPECTS OF THE AGRICULTURAL PROGRAMME

STATED OBJECTIVES

Flue cured tobacco is grown around Ena, and air cured tobacco around Kanyuambora. Because the tobacco is of low quality B.A.T. have set quotas on the amount to be produced, arguing that they can only use certain amount as filler. The objectives of the SRDP programme are to raise yields through improved husbandry with emphasis on early planting, use of fertilizer, and adequate soil preparation. The aim is to grow the quota of 150,000 lbs of tobacco on a reduced acreage by 1974.

Mexican 142 Pea Beans have expanded rapidly in Embu Division, but rates of adoption in Mberere have been much slower. The aim is to expand production in upper Mberere through improved distribution of seeds, better crop husbandry, provision of tractor services and loans for ploughing. The target for 1974 is 2,000 acres.

Castor is a crop presently grown on a small but land extensive scale in lower Mberere. Present production methods are to be encouraged while trials of a new variety are made. The target is to increase the value of production by a factor of 12 by 1974.

Rates of adoption of Katumani maize in Mberere have been disappointing. Only a quarter of the maize acreage was under Katumani in 1968. Increased production is to be promoted through an improved system of distribution of fertilizers and seed and an ox-cultivation campaign. The target is average yields of 14 bags an acre by 1974 in each of two seasons, which will release land and labour for cash crops.

Ishiara irrigation scheme is to be appraised with a view to promoting cash crop development there.

tobacco

Crop trials and research will be undertaken for cotton, Mexican beans, Katumani maize, castor, groundnuts and soya beans. To improve livestock health seven new dips are to be constructed. To raise livestock productivity in upper Mbere an AI system is proposed. To improve livestock husbandry and rates of off-take, thirteen group ranches are to be organized.

Improved bee keeping methods and marketing are to be encouraged. To this end a bee-master is to be appointed and a primary processing unit established at Tna, with an initial throughput of 50,000 lbs per year.

The purposes of the agri-service station are to promote land extensive methods of production in the more sparsely populated areas of Mbere, and the breaking of labour bottlenecks in the more fertile parts where cash crops are to be pushed. To these ends, ox-training and tractor services are to be provided. Tractors will be important in breaking the labour bottleneck at the time of land clearing and preparation. Additional functions of the agriservice station will be to assist in the water pipe scheme, the cotton block scheme, and tractor maintenance.

EVALUATION OF PROJECTS AS PRESENTED IN THE PLAN.

Apart from the cotton programme the crop development programme appears generally sound, given the limited information available to the team of costs, yields and labour requirements, and the need to prepare a plan in a fairly short time. The emphasis on cotton may have been because this was the one crop that the team had some information about from earlier fertilizer trials carried out by NORAD. There are two criticisms that may be made however. The first is that given the dearth of information about the relative performance of different crops in the different ecologies of Mbere greater emphasis should have been given to an immediate start on crop trials in order to be able to plan with facts. As it is, an agronomist (without experience in Africa) only began work in Mbere at the beginning of 1972 and although he has made an active and encouraging start in setting up observation and trial plots in Ishiara and Kiritiri and will shortly be setting up similar plots on the agriservice station shamba in Siakago and has the advice and support of an ad hoc SRDP agricultural research committee, it is unrealistic to expect recommendations to be forthcoming for another two years. A second criticism is that the Plan lacks an overall strategy for the development of small scale farming. In an area where most farmers are close to subsistence, and in dry years are on the margin of famine, it would seem logical to give first emphasis to improving the productivity of food crops. When farmers feel confident that they can obtain their food requirements in dry years as well as normal rainfall years they will give more attention to cash crops like cotton

or castor.⁺ In support of this approach one may also note that if the food requirements of the farmer's family can be met from a smaller acreage then labour is effectively freed for the cash crop activities. The strategy proposed here is therefore to concentrate first on adoption of Katumani maize with the aim of both reducing yield variation over time and raising labour productivity in food production.

The AI and dips components of the livestock package are clearly needed developments for raising livestock productivity. The Plan however is deficient in detailing and quantifying the expected benefits from group ranches, which presumably include more effective disease control, economies in the provision of livestock services, and controlled stocking and off-take rates. The plan also overlooks the likely difficulties in implementing group ranches (of a political and sociological kind) in relation to clan ownership of land.

Although a reasoned case has been made in the Plan for the agriservice station on the basis of needs to extend the acreage of cleared land and break critical bottlenecks in a land abundant, labour scarce area like Mbere; it is clear that financially the agri-service station will need a heavy subsidy.

	Capital Costs	Recurrent Costs	Revenue
year 1	16,000	6,040	2,000
year 2	-	6,040	2,000
year 3	-	6,040	2,000
year 4	-	6,040	2,000
year 5	-	6,040	2,000
	Total Costs: £46,200	Total Revenue: £10,000	

If the agri-service station can be viewed as a once and for all trigger and initiator of development in the area then the heavy subsidy implied might be justified. If however, farmers receive tractor services at a low price for a period, and then ~~are~~ returned to the free market, the overall impact of the project could be inhibitive of development in the long run.

⁺It is of course conceivable that a farmer would best provide for his food needs in dry and other years by growing a cash crop, and selling it. This does not seem to be the case however with the present range of crops in Mbere.

The Plan seeks to justify the agri-service station subsidy in term of:

- the breaking of labour bottlenecks
- introduction of intermediate technology
- development of improved implements and equipment
- adoption of ox traction
- a tractor pool for hire services and repair works
- mobile field unit for technical assistance to self help groups.

The argument for breaking labour bottlenecks using tractors for ploughing may be invalid unless other measures are discovered for breaking the equally important labour bottleneck of weeding. It is questionable too whether a shortage of tractor services presently exists in Mbere. Brokensha quotes rates of shs 60 per acre in 1971, which, allowing for travelling time are not far out of line with prices in other parts of the country. However the tractors from Mwea do not always arrive at the time they are needed.

In the crop development programme, the agri-service station looms large in plans for cotton, Mexican beans (including credit) and Katumani maize expansion.

In assessing the worthwhileness of the agri-service station, the crucial question is the extent to which it will turn out to be simply another tractor hire service, offering subsidised rates, as opposed to a research and development centre closely linked with small scale farming, coming up with low cost innovations for raising labour productivity.

This section would not be complete without mention of an experiment, not included in the Plan, aimed at increasing the effectiveness of junior agricultural staff. The procedure, which is an offshoot of the monthly reporting system devised by Belshaw and Chambers (4), evaluated elsewhere in this report, brings junior agricultural staff together with the AAO to allocate extension tasks for the month ahead, and to examine performance in the month past. Not only are the types of extension activity to be carried out agreed upon, but a check is kept on which farmers are visited to avoid the common practice of focus upon a few farmers and complete neglect of others. The system goes a long way to providing junior agricultural staff with what is commonly lacking viz. a work programme and a means of monitoring, and thereby encouraging, performance.

EVALUATION OF THE PROJECTS ON THE GROUND AND RECOMMENDATIONS

Tobacco production fluctuates markedly from year to year with weather. In 1970, tobacco quotas of 100,000 lbs of flue cured and 50,000 lbs of air cured were exceeded. In 1971 the crop was estimated

at only 35,000 lbs flue and 20,000 lbs air. This year the crop is equivalent to the 1970 crop. To what extent SRDP activities have influenced production is uncertain. As a fairly profitable crop for the farmer it seems likely that production will increase without any extra push from SRDP.

In order that more farmers be able to grow the crop and to ensure that artificial ceilings on production do not restrict expansion, we recommend negotiation with B.A.F. for a larger quota, even if this has to be 'bought' in return for lower prices.

Crop trials have been recently established by the NORAD agronomist who arrived January 1972. Plots have been laid out on parts of Ishiara irrigation scheme and at Kiritiri. An important experimental feature of the trial and observation plots is that maize and beans are being grown in mixtures, which recent work at Makerere suggests gives higher aggregate output per acre. A needed extension of this work is to carry out similar trials in the non-irrigated areas of Ishiara. We have noted the intention of cooperation between the agronomist and the agri-service station manager with respect to trials in Siakago. Another aspect of this work which must receive emphasis is the recording of 'economic' data in addition to agronomic data: for example, labour requirements and their distribution over time; prices at the farm and local market levels for inputs and outputs.

It is pleasing to note that with the setting up of an SRDP Agricultural Research Subcommittee for Mberere that (a) the Farm Management Division of the Ministry of Agriculture is taking an interest in the maize/beans trials and (b) observation plots for a wide range of crops are being set out in several areas. Basic research of this type is needed before detailed crop development programmes for each location can be worked out.

Ishiara irrigation scheme and the county council demonstration farm are still facing some difficulties. We saw only one cash crop ($\frac{1}{2}$ acre) on the scheme. However, the planning team is to carry out an investigation soon. One commonly cited difficulty is that until adjudication has occurred (or until the scheme has been officially exempted and turned over to the WDD, for example) tenants lack security. Too much security of tenure might be a bad thing however and in order to encourage realization of the considerable potential there the managing body will need to have the right to evict farmers.

Acreage under Katumani maize is estimated at 2,319 acres in the present season (only 576 acres of this was new seed however) compared with 811 acres of Katumani maize out of a total maize acreage of 3,911 acres in 1968. The dry period before the rains has been a good demonstration year for Katumani maize, and plantings are likely to be higher next year as a result. The Mexican 142 Pea Beans acreage stands at 900 acres in the present season (of this some 403 acres failed due to drought) compared with the target area given in the Plan for 1974 of 2,000 acres.

The improved credit, and seed and fertilizer distribution systems have not started yet at the time of writing.

A beekeeper (AA) moved to Siakago in March 1971. A site for his "improved hives" demonstration plot was cleared close to the centre of Siakago and some bee attracting trees planted. Later it was discovered that the plot, chosen by the D.C., was scheduled to be the site of the new police station; that it was too close to the market place for the comfort of traders; and that it was too close to one of the original cotton blocks for the bees. A new plot on one corner of the site of the agri-service station is now fitted with six improved hives (shs 50/- each from the Salvation Army (SA) workshop at Thika). Bee attracting trees are being planted but no bees have inhabited the hives as yet (May, 1972). One farmer in Kiritiri with an improved hive has got bees but there is a possibility that the new hives are less attractive to the bees. The beekeeper is collecting data on production of honey by consulting the main buyers of honey at the markets. Presently the price being offered by the SA honey refinery in Thika is less than that in the local markets for beer. The first stage processing plant at Ena has not been set up yet. The beekeeper has been very much restricted in his activities by lack of transport. A year after his appointment he was still hoping to get a motor bike.

The livestock programme is proceeding slowly. Sites for the dips have been decided upon and collection of money for the harambee contribution has begun. However, until the water pipe is constructed the dips cannot become fully operational. Group ranches are being delayed because the clans are unwilling to pool their land together for fear that it may adversely affect their claim on it when adjudication comes. A similar problem with group ranches appears to have arisen with the Masai. Hedlund (7) reports that: "Instead of group ranches many of the Masai wanted all land to be registered first to individual owners and only thereafter would the owners group together to ranch their land." Brokensha (5) commented upon these difficulties, while in Mbere as area evaluator:

"In Nthawa the land scramble is so intense that any group ranches are unlikely to be accepted. They might have a chance in the southern areas. Generally I think it is bad idea to have a ranch that crosses a locational boundary; locations are important units, and administrative difficulties will be created by having a ranch which straddles two locations... At Kiambere, no demarcation can be done until a few remaining boundary disputes are settled: another problem is the absence of water. At Machanga the position is simpler in that only one clan is involved, but the people seem generally more suspicious of the ranches. They have lost already some 5,000 acres to Kindarua dam.. The Chief of Mavuria said the people had agreed to let Meka go: a 7,000 acre area largely planted with sisal and now derelict."

The position with respect to AI in upper Mbere is happier. Crushes have been constructed at a number of central points and the programme is due to begin once the local bulls have been castrated. This operation has now begun.

As we have noted in the previous section, the Plan Outline of the Agriservice station does not give a clear indication of the priorities attached to its several proposed functions. A recent meeting between the agriservice station manager and district and provincial agricultural staff however has clarified the situation and indicates that the areas of emphasis are likely to be consistent with the resource endowments of Mbere i.e. the major concern is to raise labour productivity in crop production by means of low cost idea intensive innovations in hand and animal drawn tools and equipment.

The list of objectives in order of priority is as follows:

1. Training and introduction of Intermediate Technology.
2. Testing and improvement of implements for Intermediate Technology.
 - (i) handtools and equipment
 - (ii) animal traction: oxen and donkeys
 - (iii) small scale tractor mechanization (landmaster).
3. Service and Maintenance Work
 - (i) agriservice station equipment
 - (ii) private tractors and equipment

4. Extended Programme Work

- (i) trials and research
- (ii) minor roads programme
- (iii) water project
- (iv) self-help groups

5. Machinery Hire Service

- (i) tillaging of new land and cultivated land

- (a) individual farmers
- (b) cotton blocks

- (ii) fertilizer distribution
- (iii) planting
- (iv) weeding
- (v) harrowing
- (vi) plant protection

6. Transport work

- (i) water to health centre
- (ii) ranches
- (iii) spraying
- (iv) cattle dips
- (v) roads
- (vi) distribution of seeds, fertilizers.

7. Cooperation with Other Institutions in Testing and Training

e.g. Faculties of Agriculture at Nairobi and Makerere for testing intermediate technology; training of local people in conjunction with Karurumo Village Polytechnic.

Not only are the objectives ranked in sensible order but the project integrates well with other aspects of the SRDP programme, notably the agronomic aspects, and has important experimental characteristics likely to be of interest elsewhere.

Examples of the integrated and experimental nature of the agriservice station operations are:

- (i) the intention to carry out experiments on the effects of different cultivation techniques (hand vs. oxen vs. two wheel tractor) on crop performance. An important

component of this experiment should be the recording of economic data such as labour inputs and other input costs.

- (ii) cooperation with the agronomist in the proper setting out of trial plots to ensure uniformity in spacing and cultivation.
- (iii) farmer training in conjunction with training of the farmer's oxen.
- (iv) the testing of hand and animal drawn implements new to the area with the possibility of modification to suit local conditions (in the blacksmith's shop) and local manufacture in Embu under the RIDC part of the SRDP programme.
- (v) the servicing of infrastructural components of the SRDP programme including water transport to health centres, ranches and dips, use of tractors in off peak periods for the roads programme, and distribution of agricultural inputs to local stores.

WATER, ROADS AND HEALTH

STATED OBJECTIVES

The Plan says:

"Infrastructure has been included in the package solely because of its vital importance for the agricultural programme. Improved roads, water supply and health services are necessary for one or two main reasons:-

- to provide essential services, supplies and facilities for both production and marketing in Mbere, i.e. to open the area for inputs and outputs;
- to remove constraints or break bottlenecks due to the poverty of the habitat or to the low level of development in the area; i.e. increase labour productivity."

The road programme objectives are to improve 86 km of tracks and roads; the methods are to be low cost and the minimum standard to be achieved is that the roads should be passable to four wheel drive vehicles at all times of the year. Once upgraded the roads are to be handed over to MOW for maintenance. Tasks include construction of drifts and culverts, building up of the road body on stretches of black cotton soil, and minor realignments to facilitate the passage of trucks.

A water project is included in the programme because "without the provision of better water supplies in the area all development efforts will sooner or later come to a standstill." Piped water supplies for consumption purposes will release labour from water carrying in the dry season for land clearing and preparation, and improve the productivity of labour through better health. Water is needed too for animals, the group ranches are dependent upon it, and greater access to water will facilitate the process of land adjudication. The aim is to provide water at no more than two miles walking distance to the major population concentrations in Mbere.

Better health in Mbere is seen as raising labour productivity and increasing school attendance. The plan calls for the up-grading of existing physical facilities like dispensaries and their extension into areas presently not catered for, a mobile health unit, and increases in the number of medical staff. Malnutrition is to be tackled through education and the growing of protein rich crops like groundnuts and soya-beans.

EVALUATION OF PROJECTS AS PRESENTED IN THE PLAN

Although the road programme aims at linking Kerie with the outside world by improving tracks between Siakago and Kerie, the more obvious link between Kerie and Muringari and thence to Kanyambora and Isiara is omitted from the Plan. Also relegated from the Plan is the link between Kiambere and Kerie, in favour of the upgrading of the Kiambere-Kiritiri road. The general point is that perhaps too much attention is given to upgrading roads which are in fair condition and already passable by four wheel drive vehicles in wet seasons, at the expense of the creation of links which presently hardly exist. As we shall note in the next section the programme as it is being put into practice takes heed of these points.

The road programme is to be implemented through the creation of a special road rehabilitation and maintenance unit, headed by a civil engineer assisted by a supervisor, two fundis and casual labour hired from the areas where the work is going on. It is pleasing to note that the Plan takes heed of labour market considerations by stating that "rates of pay should be the same as for work on the organized cotton blocks, and care should be taken that labour peaks do not coincide". Machinery is to be hired from the County Council, with the agri-service station helping out where necessary.

The case for improved communications in Mbere is clear to anyone who has visited the area (see for example Brokensha's Mbere Notes) and one accepts the Plan's statement that "For obvious reasons no serious attempt has been made to identify and especially quantify the benefits expected from the programme."

The economic arguments for provision of water supplies are well presented in the Plan, although improved health and reduced drudgery are themselves important which do not have to be converted into production equivalents to be counted as benefits.

The total length of the water pipe will be 55.5 miles and the capital costs are estimated at £76,200. The Plan assumes that the digging of trenches and bush clearing can be done by harambee labour, which would reduce costs by almost 10%. Water charges are to be levied at flat rates on shops and bars, the group ranches, and the proposed Mbere Farmers' Co-operative Society. Separate charges will be made for metred individual connections. The proposal for this system of charging is put forward as something of an innovation on the "ability to pay" principle, with awareness of difficulties in collecting water rates from individuals on other schemes. The scheme seems good with the exception of the charge on members of the Mbere Farmers' Co-operative Society which could well be a strong disincentive to membership of a co-operative that is to be instrumental in other aspects of the SRDP. It is essential that the proposed method of water pricing be discussed with the people whom it will affect.

The plan calculates that the value of extra production from the water pipe as a result of breaking the labour bottleneck in the dry time of year will be shs 750,000 per year, compared with annual operating costs including debt service of shs 156,419. This is a useful and interesting comparison, but it does not constitute the calculation of a cost-benefit ratio as the Plan states, because the principle of time

discounting used in the calculation of benefit/cost ratios and internal rates of return is overlooked.

EVALUATION OF THE PROJECTS ON THE GROUND

The road programme has begun with improvement of the Kanyuambora-Muringari stretch (as per the Plan) and then continued along the old unmotorable track to Kerie which is practically finished, although drifts have yet to be constructed. The work is being undertaken by a D6 grader. More recently (May 20th) a second D6 also hired from the County Council has started clearing the track from Kiambere to Kerie. If one drives along the (partly) cleared track to Kerie the need for improvement became evident, and discussions with the chief revealed that people from Kerie presently walk ten miles to the market at Ishiara. Not only will the new road assist agricultural development but also improve access to hospitals and increase the frequency of health visits. The road engineer told us that he had on two occasions taken sick people out of Kerie to hospital by landrover: this being the only way out at certain times of the year.

The range of technical choice in road construction is obviously limited in much of Mbere by the rocky nature of the terrain.

Another factor which makes Mbere different from other SRDP areas (e.g. Migori) in choice of technology for road construction is the low population density. However drift and drain construction and initial bush clearing can be done by hand, and 20 people have been recruited for this purpose recently. They get MOW rates. On the road to Kerie the labour we saw (three men and the Chief) were playing very much a secondary role in the construction process to the D6. The clearing of the bush seemed to have been done by the machine which although quicker could as well be done by local labour. It seemed unlikely that the road would be passable to other than 4 wheel drive vehicles in wet weather, but the improvement over the original track is vast. Nonetheless an earth road will likely offer ample opportunities for labour intensive maintenance which could be carried out on a harambee basis in off-peak periods.

The staff necessary for the programme are now in post. Progress with construction of the trench to carry the water pipe was initially rapid, but has recently slackened off. The reason is that labour (contrary to the hopes of the Plan) was initially being paid, but now the P.C. has decided that all labour should be on a harambee basis. The effects of this decision are that in the first three weeks 6.5 km were dug: when harambee labour was called in only 560 metres were dug in two months. Clearly the procedure has got the worst of both worlds. If harambee labour is to be used then it is fatal to start off paying people.

Second the rate of pay given for the first 6.5 mk at shs 3 per metre was way out of line with that indicated in the Plan, (shs 1.30 per metre) and much above earnings in small scale agriculture. Casual workers in small scale agriculture expect daily wages of shs 3 per day; workers on the trench were taking home shs 10 per day. Not all the differences in performance can be attributed to the switch from paid to unpaid labour (the demands of agriculture for labour at the time of planting may have had an effect) but clearly this is paramount.

In this connection, Brokensha (5) (area evaluator) had this to say before work started on the pipe:

"As in other areas, there is much scepticism and resistance to self-help, as evidenced by the laborious way in which most projects lurch along with little progress. Surely it would be better to have these tasks done by contract labour, because:

- (i) it would be so much more efficient, and reliable
- (ii) it would prevent a possible damaging association of SRDP with just another Govt. scheme of dubious benefit to wananchi.
- (iii) there is a widespread and deep conviction that one of the immediate benefits of SRDP will be the provision of jobs at various levels. Even though many are unsure of any benefits in terms of economic development, they reckon that some of the shs 10 million should find its way into the pockets of the people. To disappoint them initially would jeopardise the project".

A small departure from the original plan is that Siakago is to be supplied from an inlet off the Ena at Siakago High School, which has meant digging a trench of about 5 kms. This has been done by harambee labour turning out twice a week, and looks to be almost completed. Perhaps the people here sense a more immediate involvement with the project and its benefits. WDD are carrying out work on the intake, the filtration plan; and the reservoir.

Enthusiasm for the ^{main} pipe as manifested by harambee turn-out seems to be greater at the far end, but there is a risk not fully discussed in the Plan that the water could be used up before it gets down to places like Kiambere. This has happened in other schemes.

The health programme scheduled for implementation by June 1972 has made fair progress. The health centre at Siakago has been extended and two Norwegian nurses are posted there. The mobile medical unit was being fitted out in May, 1972 and should be in operation shortly.

The mission hospital at Ishiara appears fully operational. It is not known whether a doctor has been posted to Siakago yet. He would be the first in the division.

RECOMMENDATIONS

Since the provincial administration decreed that the digging of the water trench shall be done exclusively by harambee effort, progress as we have noted has been very slow. The SRDP water engineer has prepared a paper recommending a resumption of hired labour. His main argument is that the costs of material inputs increase over time and so that the money gains from using harambee labour will be more than offset by the increased money costs of pipes and other equipment. His argument may be re-inforced by reference to the principle of time discounting of the expected benefit stream: water today is worth more than water in five years time. One may also recall the point made by Brokensha that one of the objectives of the SRDP programme is increasing employment opportunities, and the general idea advanced by Moris among others that SRDP in order to win the support of the people should begin with a success project that brings benefits to a large number of people.

In order to speed up the completion of the water pipe it is recommended that a return be made to hiring labour, for the digging of the main trenches, but that the digging of laterals to serve particular concentrations of population be done by harambee labour. Rates of pay should be much less than those previously paid, and in line with agricultural rates, as suggested in the original plan document. Roughly speaking a man should be able to earn say shs 3 to 4 per day, instead of the average of 9 shs previously, which implies a piece rate of about shs 1 per metre. The reason for changing the rates of pay should be fully explained to the people concerned.

The basis for this recommendation is that it is difficult to get people to work for free on a project if they cannot see a direct relationship between their effort and their subsequent benefit. In the case of the water pipe there are two factors that distort this relationship, both of which are a consequence of its size. First the pipe is a long one carrying water from relatively well watered areas to very dry ones. Hence the greatest beneficiaries are the ones at the end of the pipe, while those at the beginning of it are less eager to have the project built. Thus we find that the people in Mavuria are willing to start digging by harambee effort and want the surveyors to come and mark out the line of the trench. The second factor is that because the pipe will take some time to complete as it is a very long one, the harambee effort will be less in the initial stages than towards the time of completion.

This argument may be partially substantiated by the construction of the temporary pipeline from Siakago High School to Siakago town. The distance is much shorter (about 5 kilometres) and the people concerned in digging are likely to share in the benefits even if they do not live in Siakago because they visit the town frequently. This pipeline is almost complete after a three or four months of harambee digging. It must be recorded though that some of the 'voluntary' effort has been carried out by tax defaulters under the supervision of the local police, and in places the trench is too shallow and has to be redug.

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MIGORI-KURIA SRDP : AN EVALUATION
OF THE AGRICULTURAL AND ROADS
PROJECTS

by

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Part I : THE AGRICULTURAL PROGRAMME

A. THE MASTER FARMERS SCHEME

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2. Nature of the M.F.S.
3. Evolution of the Scheme
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B. THE CURRENT PROGRAMME

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- (g) The Planning Process
- (h) The Planning Process
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- (u) The Planning Process
- (v) The Planning Process
- (w) The Planning Process
- (x) The Planning Process
- (y) The Planning Process
- (z) The Planning Process

INTRODUCTION:

We were specifically asked by the SRDP Evaluation Team to evaluate the progress and strategies evolved for the Migori Master Farmers and the Roads programmes.

The 3 person group comprised: W. Ouma Oyugi, B.A., M.A., Doctoral candidate (Development Administration); Mary A. Baily B.A. M.A., Doctoral candidate (Economics); and Joe Kariuki, B.A. Sociology.

In carrying out our assignment, we talked to various people both in Nairobi and at the local level, and also read a number of relevant documents. A member of the group spent several days in Nairobi reading the relevant files at the MFEP and also interviewed key ministry officials and the linkmen in the Ministry of Agriculture and MOW. On the basis of these interviews preliminary papers on the Master Farmers Scheme and on the Roads project were prepared and later discussed by the entire Evaluation Team. The subsequent work of the group was very much helped by these preliminary drafts and discussions.

The group left Nairobi for the Migori-Kuria area on 7th May and stayed there for one full week. During this time we called on the Provincial Planning Officer (PPO) and the Provincial Crops Officer in Kisumu and held lengthy discussions on various aspects of the Agricultural and roads programme in Migori-Kuria.

In Migori, we held discussions with the following officers: DAO (whose visit to the area coincided with ours), Area Coordinator, AAO Migori, Assistant Community Development Officer, the Livestock Officer, and the Roads Inspector. We also interviewed 15 farmers - 13 in Katieno sub-location and 2 in Masaba sub-location.

We supplemented the information gathered thus far by re-reading the relevant files at the office of the Area Coordinator and at the PPOs in Kisumu. Upon our return from Migori, the three of us discussed our findings together. One of us was assigned to produce a working draft as a basis for discussion, which was then discussed amongst ourselves. A preliminary draft was then prepared for discussion by the entire Evaluation Team. We later went back and rewrote the draft taking the Team's comments into consideration. We divided the work thus: one of us revised the agricultural material and also worked on the substantive questions forming part III of our report and another worked on the roads component of the report. In this Report we have endeavoured to reach a consensus, though the views of the three authors were not unanimous.

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One week in the field is too short a time within which to get a correct picture of what is happening in a development situation and at the same time to carry out an effective evaluation. Although the time was short, we were able to get most of the critical information we wanted either by direct discussion or by studying the files. For what we could not get by either way, we benefited a lot from the experience of one member of our group who has a first hand knowledge of the Migori SRDP having monitored it for $2\frac{1}{2}$ years (at one stage staying in the area for a period of six months). We are, needless to say, very much indebted to the Government officers who offered us every necessary assistance. It is our sincere hope that the information they offered us has been used in a way that will benefit the programme, to the success of which they are sincerely committed.

We are,

W. Ouma Oyugi

M.A. Baily

Joe Kariuki

THE AGRICULTURAL PROGRAMME

This section of the Report deals with the evaluation of the Master Farmers Scheme developed by the FAO Team in conjunction with the local Agricultural Staff, and also with its successor Scheme - the Selective Extension and other related schemes developed by the Kenya Officers. We were restricted by our Terms of Reference to an evaluation of the Master Farmers Scheme but have extended our remit to include the Selective Extension and other related schemes, for the Master Farmers Scheme as such no longer exists.

THE MASTER FARMERS SCHEME

Origin: Both the 1st Draft Migori SRDP 1969 and the 2nd Draft Migori-Kuria SRDP June 1970, depict Migori-Kuria as an area of some medium agricultural potential where the average farmer, after land adjudication has taken place, can establish rights over some 10 acres (see for example 1st Draft p 16). Hence the belief emerged that the declared objectives of SRDP (employment creation and income generation) could best be achieved by increasing cultivated farm acreage, farm productivity and production.

In the documents produced before the arrival of the FAO Team in the area, the emphasis was on crop expansion. In the Outline Programme based on 1st Draft Programme, for instance, the authors wrote:

"The basic strategy in Migori is centred on crop expansion....." (p.2)

The emphasis on crop expansion was later to be toned down drastically by the FAO/SIDA Planning Team. In a paper entitled "Cyclical development through the People" dated 1.9.70, the Team leader argued in favour of developing the abilities of the people first. He increasingly became sceptical of crop targeting which on a number of occasions he attacked as a 'mechanical way of development'. In Nov. 1970, he produced a proposal for an agricultural extension experiment for the Migori-Kuria SRDP, in which he proposed to improve the quality of extension agents and their clients - the farmers. By December 1970 his ideas had managed to find expression in an official document when, in the Revised Outline Programme, Migori-Kuria SRDP December 1970, it was stated that:

The basic strategy is to gear the self-help group movement to more fruitful aspects of development, to build up a balanced and integrated package of institutions and systems to serve the production

needs of farmers and to stimulate the incentive to produce. (p. 3).

The emphasis now was on institutional and human development. The prospective farmers were to be 'developed' first before any success with crop expansion could be expected, so the argument ran. These prospective farmers were to be developed through what the team leader called a Master Farmers Scheme. That was the beginning of the now familiar but defunct Master Farmers Scheme in the Migori-Kuria SRDP.

THE NATURE OF THE MASTER FARMERS SCHEME.

Briefly the proposal was to establish a set of grades for farmers: Pupil Farmer, Improved Farmer, Progressive Farmer, and Master Farmer. There was a set of requirements for each grade, with the bottom grade a little above the level of the average farmer; when a farmer met all the requirements for a grade, he was to be given a merit badge, amid fanfare. The farmers in the Scheme were to be given special attention by the extension agents; this was to be complementary to the regular extension programme. The farmers in the Scheme were to serve as models for other farmers. The only modification in the actual extension approach was a drastic increase in the level of training of the agents who come into contact with individual farmers. All of the JAAs and some of the AAs were to be shifted into jobs that did not bring them into contact with the farmer; they were to be replaced by AAOs and new graduate AAs from Embu.

THE EVOLUTION OF THE SCHEME

The notion of Master Farmer Scheme was adopted from Botswana where the FAO Team leader had participated in a similar scheme before his Migori assignment. He began talking about the scheme as soon as he arrived in the area. The idea was taken up more seriously after the preparations of the 2nd Draft Programme in June 1970. The first time substantive mention of it was made was on 6th October 1970 in a programme proposal to the MEPP. In this letter about a project package) he talked of a master farmers scheme of the Botswana or Malawi type.

That was not the beginning. From July 1970, it had been the subject of discussion between the Team leader and the Locational Agricultural Assistants (AAs), who played important roles in the evolution of the scheme. They submitted their recommendations to the Team leader between August and October 1970 in which they outlined what they thought should be the

criteria for grade (pupil, improved, progressive, Master Farmer) membership. The proposals were analysed and condensed into a working document by the Team leader. The condensed version was later discussed at an agricultural staff meeting with the FAO Team leader in attendance. Three such meetings were held, before the final version of the Scheme was thrashed out.

Everybody that seemed to matter in this particular case was either kept informed or consulted. One of the officials to be consulted early in the planning phase was the PDA Nyanza. In a letter dated 19.8.70, the PDA wrote to say that the idea sounded very good and promised to give it "my blessing". He further advised the Team leader to go ahead and work with the DAO and AAO and to keep him informed. An official of the USAID then attached to the PDA as his personal adviser on rural development matters also approved the idea. One month before the details of the proposed scheme were out, the Team leader again wrote to the Extension coordinator in the Ministry of Agriculture soliciting his opinion about the proposed scheme. In a reply dated 21.11.70 the officer in question wrote:

I am in full accord with your agricultural extension experiment proposal hope you are successful in implementing this experiment as it should prove to be a good demonstration on how to strengthen the effectiveness of extension work and is consistent with my intentions and recommendations.

Thus, when the Master Farmers Scheme came out on 11.12.70, the Team leader was happy that he had managed to put together a scheme in which both the Headquarters and local officers had been fully involved! That was of course in keeping with the principle of consultation - and did fall very well within the existing machinery of the government.

No negative comments or reaction against the proposed scheme were heard until 19.3.71 when an ADA Extension Officer attached to the Ministry of Agriculture wrote to the PDA Nyanza characterising the proposals as "rather academic" and demanding to see something more concrete on the ground to justify financing the Migori-Kuria Programme. A second criticism of the scheme came from the MOA on 28.4.71. In a letter to the PDA, an official of the Economic Division of the MOA attacked the proposed scheme and in effect urged the PDA to ignore the proposal and asked him to do what was tantamount to taking away the agricultural aspects of the Migori-Kuria Programme from the FAO Team. This letter, which later caused a lot of confusion, was not even copied to the FAO Team leader or to the Area Coordinator. At the programme level, the Kenyan officers did not know of the struggle that had developed until much later.

In short, the Master Farmers Scheme cannot, as some Technical assistance officers in both the MOA and MFEP have tended to portray it, be considered the creature of the FAO team leader alone. He involved those who were relevant and therefore deserved attention in the planning process. That criticism should have come from some officers in MOA several months after the Scheme had been put out despite earlier support from the same Ministry is a revelation that there is lack of intra-ministry communication, and lack of a clear "authority structure" for the SRDP.

We have attempted to put the planning picture in perspective so that we may correct the false impression current in certain government circles that the Master Farmers Scheme was a one-man "show piece". We agree with the opponents of the scheme (as detailed below) that there was a lot that was unconvincing in the scheme as it originally came out but we also believe that there were certain aspects that were not at all bad. However, outright rejection of the scheme made any improvement by the FAO Team rather difficult. Instead they opted to defend the entire thing and in the process lost out!

EVALUATION

The desirability of selecting certain of the better farmers and giving them additional inputs to make them even better, in the hope that they will serve as models to the rest of the farmers, has been discussed at considerable length by people concerned with extension strategy in Kenya. We simply note here that the Master Farmers Scheme and the Selective Extension Programme both involve this feature.

The ultimate objective of SRDP - as we have proposed in this report - is to increase the rural standard of living. The task of the extension service is to inform the farmer about better farm practices and to convince him that they will raise his income and hence his own standard of living. The Master Farmers proposal devoted most of its attention to classification of farmers and devoted little attention to developing new methods of getting the information across and identifying the reasons why farmers will not or cannot adopt innovations. A classification system could be of value in separating farmers into groups, so that farmers at different levels of achievement could be given different extension treatment. This aspect is not discussed in any detail in the proposals and if it were to be an important feature, it would seem to be desirable to include below - average farmers as well.

The main emphasis seems to be on the incentive aspect. We question the value of this. If the prospect of increased farm income is not sufficient to make the farmer adopt farm improvements, how likely is it that the prospect of moving up a notch in a special prestige system invented by government officials will be more of an incentive? The system is likely to provide only a marginal additional incentive, while using up the time of the extension agents in inspections to see if the farmers have passed the tests, etc.

Moreover, as some officials in the MOA pointed out at the time, the requirements of the grades are not directly related to the objective of raising farm income, and some of them may even be inversely related under some circumstances. Even if the grades were redesigned so that they were perfectly suited to the objective, they would have to be revised frequently as conditions changed. It seems to us that the extension agent should focus on teaching the farmer how to optimize -- to choose the best farm management practices for the prevailing economic conditions and not merely to adopt a set of rigid rules.

The higher level of training for extension staff was presented as an experiment to see whether the better-trained staff would be more effective, but the usefulness of the experiment would have been severely limited by the fact that such a level of training would not be replicable on a wider scale for 10 years or so because of the government policy regarding the phasing out of the JAAs. Moreover, although it was supposed to be an experiment, there were only vague statements about how one would decide whether or not the experiment was a success.

The above were some of the major inadequacies of the Scheme. Instead of improving on them, the FAO team spent all their available energies defending the Scheme on the grounds that "after consulting with the appropriate authorities during the planning process we saw no reason why some people should jump in at the end of the exercise and tell us that we have been wrong all the way". This attitude did not help much. By June 1971 it was clear that the MOA and MFEP were going to have nothing to do with the Master Farmers Scheme. Instructions were issued by MOA and MFEP to the local level officers (i.e., Provincial and below) to go ahead and prepare an acceptable alternative programme. They began to do so in August, 1971.

LESSONS OF EXPERIENCE

One of the points which the SRDP stresses is the involvement of the local-level officers in planning. The making of the Migori-Kuria Master Farmers Scheme to a large extent satisfied this condition. The technical assistance personnel (SIDA/FAO) and the local agricultural staff collaborated in producing it. The product was not good enough for those in authority to accept. It seems therefore that closer involvement of the local-level officers in plan-making does not automatically guarantee the making of acceptable plans (do not confuse this with good plans). If the plan does not reflect the thinking of those in positions of authority, it will be regarded as just another source of information. The Migori-Kuria experience does show, in addition, that the presence of a technical assistance personnel in the area does not alter this fact. Hence the local level planners must always strive to identify the locus of authority in the planning process and to make sure they are closely kept in the picture if their plans are to be accepted when finished.

THE CURRENT EXTENSION SCHEMENATURE AND ORIGIN

The current Extension Scheme being tried out in the area is a direct successor to the FAO/SIDA Extension Scheme (incorporating the Master Farmers Scheme). It still retains certain features of the Master Farmers Scheme, such as improving selected farmers performance via increased extension inputs and classification of farmers.

Specifically, the Scheme involves the selection of ten farmers per one extension agent. (This included JAAs, AAs AAOs. Their total in the Programme area is 63. Hence the 630 selected farmers often referred to under this scheme). The selected farmers will be involved in the demonstration of the various farm enterprises aimed at giving them some visible changes in the technical and economic aspects of farming in the hope that:

- a) the selected farmers will adopt the recommended techniques.
- b) that they will then act as spreading agents.

The role of the extension agent in this exercise is seen as one of (i) setting up demonstration plots of various crops in collaboration with the selected farmers and (ii) giving the needed education to and supervision of the selected farmers.

The scheme also calls upon a contribution from the selected farmers. His plot is to be used for demonstration field days to be attended by neighbours who are supposed to be influenced by his standard of husbandry. He should struggle to get 2-5 converts at the end of each growing season. He should also have the ability to address his fellow farmers during the field days. Above all he must adopt the innovation.

To ensure that there is an increase in net income for the selected farmers there is a proposal for land improvement by planting appropriate crops, carrying out rotation and having paddock. Associated with this is farm management practice. This calls for timely operations (e.g. planting in time), farm planning, book-keeping practices, credit availability and closer supervision of the above by the extension agent.

In short, the selected farmers will be given special attention in an agricultural programme designed to:

- 1) promote improved crop husbandry: hybrid maize, groundnuts, tobacco in high rainfall areas; sorghum, rice, pulses, cotton in low rainfall area.
- 2) promote improved animal husbandry through AI, dips, more emphasis on dairying.
- 3) experiment with farm management and budgeting on the lines of the Nyeri program.
- 4) intensify farmer training by sending more farmers to the FTC at Homa Bay.

The selected farmers will include poor, medium and good farmers. The groupings will be used primarily for planning extension approaches and evaluating progress, rather than as incentives as with the Master Farmers Scheme. The Scheme is to be carried out by the JAAs with the AAs and AAOs assuming supervisory roles.

THE EVOLUTION OF THE SCHEME

The planning of the Scheme started when the FAO Team was still in the Area. On 13/7/71 the PPO Nyanza wrote to the FAO Team leader informing him that "Nairobi wants us to come up with acceptable Agricultural programme, our previous efforts (Master Farmers Scheme, training proposals etc.) having not been successful". At about the same time the P.D.A. was also in contact with his District and Divisional Staff acting on the instructions from above. (See P 4 top).

An SRDP Project Committee meeting was called on the 19.7.71. At that meeting the form which the Scheme was to take was discussed. It was suggested and agreed that a total of 630 farmers be selected, 10 per every extension agent. The criteria of selection was also agreed upon. These were:

- (a) that the farmer to be selected must be willing to follow advice
- (b) that the selected farmer should be influential enough in his area to become a spreading agent
- (c) that there must be geographical spread of the selected farmers.

A selection committee comprising the D.A.O., the three D.Os in the Area and the FAO Team leader was appointed and asked to report back on 20th August 71 on their selection progress. They in turn delegated this responsibility to the JAAs and sub-chiefs. By 24/8/71 when another Project Committee meeting was called and attended by the M.P. for Migori, the D.C., P.P.O., D.A.O., and the Divisional and a few District heads, 545 farmers had been selected. Some members raised an objection about the selection method which they argued could not be free from charges of favouritism. It was agreed at this meeting that the method would be reviewed. (N.B. This had not been done by the time we were in the area).

At this meeting the FAO Team leader was asked to cooperate with the D.A.O. and his staff in writing out the proposed Agricultural Programme (including the proposed Extension Scheme). He declined to assist on the grounds that "it is not my job-----particularly

as advice I have given has barely marginally been followed" (his letter of 1/1/2 of 9th Sept., 1971 quoted by P.D.A. Nyanza in: "Agricultural Programmes - Migori Kuria SRDP", dated 11th Oct., 1971 p 2).

Hence, at the beginning of September it was still uncertain who would write up the new agricultural programme. The PDA and his staff had been reluctant to disregard the presence of the FAO/SIDA team in the Area, but the Team leader's letter of 9th September quoted above was the immediate turning point. The PDA and his staff took to themselves the task of preparing the Programme and by 11th October, only one month later, "the 1971 - 72 Agricultural Programme - Migori - Kuria SRDP", was on its way to the Ministry of Agriculture, NBI for approval. The first item discussed in it is the Extension experiment Scheme. This Scheme was improved somewhat with the publication in February (12th) 1972 of "Migori Kehancha SRDP Agricultural Programmes". Briefly that has been the evolution of the present Extension Scheme.

EVALUATION OF THE CURRENT SCHEME

In a strict sense, the purpose of an evaluation exercise is to produce some kind of objective evidence of accomplishment in terms of outputs and to set this against the cost of inputs which in an ideal situation (seldom realized) would have been committed in the knowledge of alternative methods and costs of achieving the same or better results.⁺ We are aware too that evaluation should not be based on opinions. But in our case this is unavoidable since very little has been done that can be quantified. There is also the problem of achieving accuracy in quantifying inputs (e.g., staff time) and outputs (e.g., number of hectares planted) in a rural setting. Our evaluation therefore takes cognizance of these obvious limitations. We recognize the significance of focusing the evaluation on the effects of a project but also recognize the fact that equally important is the evaluation of the planning process and of the plans so produced. In the absence of action on the ground they become the foci of analysis. Our evaluation touches on all these aspects of the Migori-Kuria agricultural programme.

⁺ U.N.I.T.A.R. Criteria and Methods of Evaluation:
Problems and Approaches UNITAR Series No. I,
New York, 1969 P 20.

The Planning Process . In the current (1970/74) National Development Plan the authors write about the SRDP:

"It is intended to execute this programme within the existing machinery of Government by the application of additional inputs of personnel and resources to a plan devised jointly by field and headquarters officers
(Pp174-175)

Prior to the introduction of the SRDP in the area agricultural planning was a sole monopoly of the agricultural staff. The situation changed somewhat in 1969 during the preparation of the 1st Draft Programme - Migori SRDP when both the District Development Committee (D.D.C.) and the Provincial Planning Officer (P.P.O.) had something to do with the making of the agricultural component of the Programme. But even then, the role of the DDC and of the PPO was just to comment on what the (Divisional, District and Provincial) agricultural staff and produced single-handed. In talking about planning within the existing government machinery, that is the picture we should bear in mind.

During our discussions with the Government officers involved in the Migori-Kuria SRDP it became clear to us that:

- (a) The selective extension proposals were developed at the divisional level, and that the details were inserted by the Provincial Staff.
- (b) The rest of the agricultural projects were identified and developed by the Divisional, District & Provincial agricultural staff.

Except for the selective extension scheme, which we have said was born at a Project Development Committee, there was very little departure from the traditional agricultural planning methodology. One of the immediate objectives of SRDP is consultation with and participation of the clients in the planning process.

The clients -- in this case the farmers - were not consulted. There exists a sub-District Agricultural Committee at which such consultation and participation should have taken place. Our study of the relevant documents and also our discussions with the officers concerned revealed that such consultations never took place. Three reasons may be offered to explain this failure:

(1) There was pressure from Nairobi for something to be produced after the FAO/SIDA Master Farmers Scheme had been turned down. There was, therefore, no time for such consultations.

(2) There is of course the usual anti-consultation, anti-participation attitude of the government staff. The argument is that (a) they usually gain little by such consultations (b) there is no need to raise the farmers expectations for nothing unless there is something definite to tell them.

(3) Where the staff is oriented to consulting the clients, they may be limited by lack of knowing how to do this. The experience after three planning phases (1st Draft, 2nd Draft plus the subsequent proposals e.g., the Master Farmers Scheme and now the so-called Selective Extension Scheme) has revealed lack of consultation with the farming community in the area. We doubt therefore that the pressure from Nairobi was solely responsible for the absence of such consultation during the preparation of the current scheme.

Since we found a lot of scepticism on the part of the farmers about the programme, we feel there is a need to find ways of co-opting them into the planning process. Mass participation by farmers most of whom are illiterate is not realistic. We suggest some form of indirect participation. The existing sub-D.A.C. seems to us to be a suitable institution which should be strengthened for that purpose. Its membership (as far as farmers are concerned) should not be fixed. Besides the elected representatives of the farmers, the A.A.O. should have the right to co-opt new members depending on the issues to be discussed. Thus, if for instance the focus of the discussion is to be on cotton, the AAO should be free to co-opt (ad hoc) new members from cotton growing areas. This emphasis on farmer representation is based on the belief that clientele representation is more relevant in this case than the traditional political forms of representation in the Development Committees. The SRDP Project Committee should however be an integral part of the agricultural planning mechanism but it will have to come into the picture a little later. The "Ideal" planning situation we visualize is diagrammed below:

PLANNING PROCEDURE : AGRICULTURAL PROJECTS

<u>Steps</u>	<u>Nature of work</u>	<u>Participants</u>
1.	Data Collection	JAAAs, LAAs in consultation with the clients (farmers) AAOs to random check.
2.	Data Analysis (Simple data analysis)	AAOs with the help of LAAs as needed. May call for the assistance of specialists.
3.	Project Identification (In this stage participants identify the projects they consider worth including in the plan)	Sub D.A.C. whose membership include D.O., A/C., A.A.O., L.A.A., elected farmers representatives, and a few nominated farmers.
4.	Project Integration (drawing the plan)	AAOs with exogenous assistance as necessary
5.	Discussing 1st Draft Plan	Sub-D.A.C.
6.	Discussing the Amended Draft	Project Committee (SRDP)
7.	Producing Final Plan	AAOs, A/C with exogenous assistance as necessary
8.	Final Approval	Project Committee, DDC or DDO.

We are of course aware of the opposition to a 'myriad' of development committees at the local level by certain government officers because of the fact that there is a lot of duplication involved. We do however believe that in the case of agricultural planning, an agricultural committee with membership drawn largely from agricultural 'constituencies' should be given the first opportunity, before the SIDP Project Committee, to identify agricultural projects. The SRDP Project Committee in this scheme would then concern itself with broad integrative work (i.e. integrating the various sector projects (agriculture, health etc.) into the area programme).

In the following pages, we single out some of the major components of the agricultural programme (Migori-Kuria SRDP) for closer analysis. These include: The Extension Experiment, Credit Scheme, Crop Production Proposal, and Livestock Marketing.

The Extension Experiment

One of the purposes of experimentation is to test with a view to establishing desirable action procedures. The assumption here is that subsequent actions will only follow if the tested procedures

prove successful. In this sense experimentation is innovation-motivated and goal-oriented.

The goals of the Migori-Kuria Extension Experiment are stated as:

"To carry out demonstration - either aided or unaided - on the 630 farms designed to give technical and economic aspects of crop and animal production with an ultimate contention that

- (a) the demonstrators will adopt the recommended techniques and
- (b) these demonstrators will act as spreading agents who would be able to exert an influence over their fellow farmers thereby accelerating the adoption process at a faster rate than the extension staff"

Experimentation may involve trying either a new innovation or an old one. Usually the people carrying out the experimentation are clear in their minds what it is they are testing. Reading closely into the contents of the Migori-Kuria Extension Experiment one does not see what is being tested. We are not told what the demonstration farmer is to be told, and how his success or failure is to be measured.

Role of extension staff. There is very little in the proposed Extension Experiment that is new. Considering further that the JAAs themselves are no better than they were before the introduction of the programme, one can only predict that the 'experiment' will be a mere perpetuation of the 'familiar'. In fact we never saw anything new when we visited the area. Because of the size of the programme area, it is not possible for the AAO Migori (who incidentally struck us as very well informed on the SRDP) to closely supervise the sublocations. He has in the past been constrained by lack of petrol but we gathered that the position has been improved a bit. In spite of this, he still cannot adequately supervise both Migori and Macalder Divisions. For this reason, the proposed AAO Extension Experiment should be appointed immediately to facilitate a close supervision of the JAAs when the implementation starts.

Role of farmer demonstrator We are not persuaded by the argument that the selected farmer should have the ability to address his fellow farmers during field days. If this criterion were to be emphasized we would end up with demagogues and not dependable farmers. We also do not think that it is the duty of a farmer to struggle to get 2-5 converts at the end of each farming season as is emphasized in the proposal.

This will divert the farmer's attention from his farming activities.⁺ The farmer cannot be expected to go all out persuading potential converts - a job from which he does not get any material benefits. This mobilization work must be done by the agricultural extension agents in collaboration with the Provincial administration. The Community Development people may also play a significant role by holding joint 'barazas' with the extension agents.

Ensuring net income rise for the 630 farmers It is considered that land improvement (crop rotation, planting appropriate crops, and having paddock) and farm management (timely operations, book-keeping, farm planning, credit availability and closer supervision) will ensure a rise in income of the selected farmers. There is a strong possibility that if these measures were to be effectively taken the farmer could end up better off than he was before. The position when we visited Migori-Kuria in May - ten months after the initial selection of the farmers - was that nothing was being done to implement these proposals. With no action on the ground, it was not possible for us to identify the problems these proposals faced.

Nevertheless, it can still be stated that the success of the above proposals depends on:

- (a) The farmer being persuaded that the proposed innovations are likely to benefit him. His response will be influenced by his past experience in similar situations.
- (b) The extension agents' (who must do the persuasion) capacity to do the work.

This means education of both the farmers and the Extension Agents. The education of the latter comes first. As far as Migori-Kuria is concerned we recommend that the F.T.C. course should be supplemented with localized one day seminars for the JAAs to be conducted by the AAOs in the programme area. This is a kind of on-the-job training and does not require the agent to be physically absent from his farmers during the period of training.

⁺There may be cases where the farmer demonstrators have played the conversion role successfully, but we doubt its permanence in the absence of material incentives.

The approach we envisage for Migori is one in which the training of the extension agents would be tied to the experimental scheme, and to the training of the farmers locally. This would not interfere with the regular F.T.C. courses for either farmers or JAAs.

The Selection of the farmers Having commented on the contents of the Extension Experiment as currently conceived, we shall now have a look at the clients and how they were selected.

The selection criteria which we have referred to on page D. 10¹²-11 did not differ at all from those devised by the FAO/SIDA Team for the Master Farmers Scheme. In fact they were identical (see Master Farmers Scheme at p.6). This situation may be explained by the fact that for the local officers some of whom participated in the planning of the current programme, "the Master Farmers Scheme had neither been dropped nor adopted". Another key officer in the programme told us: "infact the M.F.S. was really a Selective Extension". Thus, although the M.F.S. was a dead issue in Nairobi, at the local level some of its fundamentals were very much alive. The statement in the current Extension Scheme (12.2.72 at P.1) that the farmers were selected at random is not true. Given the selection procedure adopted (which was not random) the decision to have among the 630 selected some poor, medium and good farmers was difficult to realize in a situation where nobody knew the basis for such classification.

No baseline data were available to us on these farmers and even if there had been, there is virtually no information about the rest of the 20,000 farmers in the project area so one cannot say anything firm about how these farmers compare with the rest of the population. At the time we visited Migori we were told that the baseline data were to be collected very soon. Since consolidation and land titles are not complete, and in the absence of a social scientist to help design data gathering, and given the exceptionally large size of sublocations, a full baseline survey of the area would be a very tough undertaking for the District Staff. Nevertheless, it seems to us that very simple data on the selected farmers would be extremely useful, and since the selection of the farmers in August - September 1971, it could easily have been collected already. For example, each JAA could very easily have presented simple data on size of farm, major crops, average yield per acre, farm income, age of farmer, tribe, clan, sub-location, number of cattle etc., with the farmer's name at the time of the selection. The failure

to do this was partly due to the confusion surrounding the Scheme preparation and the question of who was responsible for such initiatives ----- the FAO/SIDA Team or the locals.

We interviewed 15 of the 630 selected farmers. Although our sample was unavoidably biased toward farmers who were easily accessible and to whom the extension agents wanted to take us, some of the farmers we talked to were not very clear about why they had been selected in the first place. The breakdown runs thus:

Selected for influence in the area (1)
Selected for willingness to follow advice
from agriculture staff (2)
Selected for their hard work (5)
Do not know (7)

From these interviews and also by talking to the government staff involved in the selection, it became clear to us that each extension agent chose 10 farmers known to him and considered by him to be cooperative and a good model to their neighbours. In some cases the influence of the sub-chief also counted. In such cases tax payment record was also taken into consideration. There was a deliberate attempt to avoid the "difficult" farmers. In other words the selection was very "politicized". Given the method by which these farmers were chosen it seems likely that there was a bias in favour of friends of extension agents and sub-chiefs and in favour of wealthy and influential men. (In fact in our sample there was a substantial number of salaried people - JAA, teachers, a sub-chief etc.) - all of whom would be expected to be part-time farmers. If the SRDP objective of an equitable income distribution is to be realized in the long run, the selection of the farmers must be unbiased. The way to ensure this is through random selection. This method does, of course have its own shortcomings (e.g. possibility of including in the sample the landless, the over-aged, rural bourgeoisie - etc.,) but in relative terms it is the better in that it is sure to reflect the rural social set-up. Furthermore it is free from charges of favouritism.

Farmers Knowledge of the Programme The farmers we talked to did not know what difference it was supposed to make to them to be a selected farmer. The people who selected them had merely told them about their selection without explaining to them what was involved. Furthermore the demonstration plots which were supposed to have some effect in the surrounding locality were not even being visited.

Perhaps this was because the programme had not effectively got off the ground when we visited the area. A number of farmers we talked to give us the impression that they never even expected such neighbourly visits. "The only visitors we know are you people" one stated. This lack of awareness by the selected farmers is to be explained against the fact that the extension agents themselves did not understand the programme and did not therefore have anything new to tell their clients. In such a situation, the extension agents must fall back on "the familiar". This is clearly reflected in the current agricultural programme in the area.

The Credit Scheme

This scheme is viewed as being critical to the success of the agricultural programme in Migori. We concur. The programme involves the initial selection of 20 stockists who upon the recommendation of the agricultural staff would get 5-15,000/- Bank loan. The idea was developed by the AAO Migori in collaboration with SIDA/FAO. The A/C gave it the 'push' it needed to be implemented.

The loans are for stocking agricultural inputs. It is hoped that the stockists will in turn provide character loans to farmers, and even if they do not, it will at least no longer be necessary to go all the way to Kisii (which may be over 100 miles from certain points in the programme areas) for farm inputs. Nineteen stockists with 20 shops had, by the time we visited the area, been chosen to receive loans from the commercial bank; six had actually received a total of shs 28,000 when we visited the area. The six are located so as to give a reasonable geographical spread. This scheme seems to be a very good one; we feel however that the loan should have been in kind instead of in cash to ensure that the money will be used for agricultural inputs. We were also disturbed to learn that the selected farmers had, in most cases, no idea who these stockists were. All the 15 farmers we talked to claim they did not know who their local stockist was - five months after the scheme had been launched!

For the success of the scheme, the authors emphasise

- (a) Willingness of bank people to set good terms
- (b) Trustworthiness of their traders and their promptness in repaying.
- (c) How readily and quickly farmers buy these farm inputs.

We agree that all these are important factors. However, we would shift the emphasis. It is our strong belief that the success of this scheme will very much depend on the willingness of the farmers to adopt the recommended innovation and hence their willingness to buy farm inputs. The education of the farmers which we have recommended above is therefore very important for the success of the credit scheme.

Crop Production Scheme

The objectives of the crop production proposals are identified as:

- (a) To raise per capita food situation
- (b) To raise per capita farm income by improving agricultural productivity.

Crop priorities are: hybrid maize, tobacco and groundnuts in high rainfall areas; and sorghum, rice, pulses and cotton in low rainfall areas. The role of experts (whoever they may be) and extension staff is to (a) provide knowledge and (b) provide incentives. The achievement of the various crop targets is tied to the success of the above.

The problem with the concept of "per capita" is that it usually ignores the question of distribution. Thus raising 'per capita' food situation in the area does not necessarily mean that those who were in need previously will be better off subsequently. Some farmers are better endowed than others, and will always produce more. In computing per capita production, we simply divide the aggregate production by the number of farm families. In terms of real food income per capita (i.e. per head) we are very far away from reality. The same argument holds for per-capita farm income (in monetary terms). If the question of equitable distribution is important (and indeed it is) then before we can meaningfully talk about raising per capita food situation and per capita farm income, we must know the status of the individual farm families in the area. We have mentioned already that such baseline information does not exist in the area. Further more we need to know the prices of the various crops being recommended.

Except for tobacco, the information that exists on crop inputs, outputs and profitability is based on averages in Kisii. Information should now be prepared based on experience in the project area, and where such experience is insufficient, crop trials should be carried out. No information on profitability was available for four of the seven crops that are at the heart of the program (sorghum, rice, pulses, and cotton). Very likely there are rough notions of the profitability of these crops, but it seems to us that if these crops are to be the main thrust of the extension program, the information should be readily available. Without this information, it is difficult to evaluate the suitability of the chosen crops. Below we comment on some of the chosen crops.

Hybrid maize Hybrid maize was among the most profitable crops with respect to the Kisii data made available to us in Migori. The current programme (Migori-Kuria) proposes to increase the acreage as follows:

Kuria	from an average of 75 hectares in 1970/71 to 1000 in 1972
Migori	" " 171 " " 1969/71 to 2000 in 1972

These ambitious figures were based on the hope that more GMR loans would be taken out in 1972 and more land ploughed. To make sure this happened, a tractor hire service was brought into the area. The selected farmers and other GMR loanees were to be given priority. Because of demand elsewhere in the District, the tractors did not serve the Migori-Kuria area as intensively as the agricultural staff had originally hoped. Many farmers had their land ploughed but not harrowed, and because of District demand, the service in Migori-Kuria was not well distributed. No farmers in the lowland areas, for instance, benefited from the tractor hire service. And even in the highland areas, only GMR loanees benefited from the service. The distribution of food and cash income from increased production that we discussed above could not have been realized even if the projected crop targets had been realized.

The crop targets themselves seem to be rather too high and therefore unrealistic; 75 - 1000; 171 - 2000 hectares. In our discussion with the agricultural staff, we were told that 50 GMR loans for the long rains had been taken in Migori and 54 in Kuria. Thirty and twenty applications respectively had been received for the short rains. Assuming that each of the recipients had a minimum of 15 acres (approx. 6 hectares), a total number of hectares to be planted during the year 1972 would be $(154 \times 6) = 924$ hectares for the entire programme area. This is 2,076 hectares less the total target

for Migori and Kuria. Even if there had not been any problem with the tractor hire service, and taking into consideration such things like sizes of land owned by individuals, cost of labour etc. it is highly doubtful that the figure 3,000 hectares could be realized.

Tobacco There is a special tobacco promotion programme which is a joint venture by BAT and the Kenya Government. It is another case where an ongoing program has been labelled SRDP. Tobacco can be very profitable if extension advice is carefully followed (although there is some uncertainty about how profitable it is, since it has a heavy labor input and the only profitability figures we were able to get are net of labor costs; the project is planned for small plots cultivated by family labor). However, bad yields, low quality of the tobacco (and therefore low prices) plus slow payment by the cooperatives have caused a number of farmers to become discouraged with the crop.

The crop requires close extension supervision since the yield and grade of tobacco depend exclusively on proper husbandry. The Government agreed to provide extension agents to be trained by BAT advisors but with the overall shortage of extension personnel, these have not been provided. The slow payment seems to have been caused by financial difficulties within the cooperatives. The cooperatives advanced cash to farmers for tobacco inputs, obtaining the cash on loan from commercial banks, with the tobacco crop as security. A number of the farmers spent the cash and didn't grow the tobacco; when the crop was sold to BAT, the commercial banks had to be paid first. This meant that payment to the farmers was delayed and in one case the cooperative did not have enough money to pay those farmers who had grown the tobacco. The necessary extension personnel should be provided and the financial arrangements of the cooperatives should be overhauled (in particular, the farmers should obviously not be given loans in cash) as soon as possible, since this is basically a good programme and BAT is considering pulling out if things do not improve this year.

Cotton This crop grows only in the low land areas (Muhuru-Kadem location). The target of 245-300 hectares is realistic, except that there are already those who are disappointed with the crop and are likely to abandon the cotton growing this year. This is confirmed in the report of the A/C where he writes

Cotton was not well planted in Macalder Division as had been hoped. People switched over to planting cassava (A/Cs report for June 1972, P3)

Their disappointment arises from (i) frequency of crop failure (ii) poor yield and (iii) poor prices.

Cotton has large requirements in terms of cash and labour inputs. A cotton farmer who has no money to buy the requisite farm inputs must expect disaster at the time of harvesting. The majority of the potential farmers suffer from this limitation. Furthermore, cotton experiments in the area have not done well in the past. This has had an adverse effect in many areas. Since cotton must compete for land with other crops (e.g. sorghum) very few farmers indeed can afford to live with recurrent disasters.

Migori's experience with cotton growing is not unique at all. Other studies (See Gwyer's on Mberere) also reveal that the crop is unpopular. As Gwyer quotes:

"the main reason is simply that with current standards of husbandry and prices, farmers generally do not find it a rewarding crop to grow."

Since one of the objectives of the SRDP is to help the farmer to increase his net income, cotton does not therefore seem to be a suitable crop in Migori (Muhuru-Kadem) for realizing this particular objective.

Because of the place of cotton in the national economy, we do, in spite of what we have stated above, recommend that the growing of the crop be continued. However, we suggest a government subsidy to cotton growers. In cases where individuals have willingly given their plots for demonstration purposes, they should be compensated if the demonstration fails.

Livestock Marketing

This dates back to October 1970. As early as 1969 it had become apparent that the supply of beef cattle from Migori-Kuria to the KMC was steadily declining. The fall in the supply to the KMC has happened as a result of the traders' reaction to the KMC's system of payment; they pay the traders for the net weight of the carcass after slaughter. Some are destroyed if the carcass is diseased (disregarding the traders' purchasing and transporting costs). This is what is feared to have caused the traders to resort to moving their animals to other areas - probably across the lake via boats to Siaya District and to Uganda despite the not infrequent quarantine in the area. The present problems of business transactions between individuals in Kenya and Uganda arising from currency regulations may have turned cattle from Uganda toward Athi River. But the long term effect remains

to be seen, for as the Acting Managing Commissioner KMC once observed:

"Farmers are just like any other businessman; they sell to the highest market or if they cannot make a profit, get out of the business" (KMC April Bulletin 1970)

Hence the Migori-Kuria Scheme is aimed at contain-^{ing} the situation. In the programme proposal dated 11/10/71 it appeared to be well planned. However, sometime early this year, it turned ~~out~~^{after all that} the Kurias were not keen on having a holding ground in their area. Discussions with some of the officers involved disclosed that the refusal was based on political agitations and lack of awareness on the part of the people. This has resulted in the two holding grounds being both located in the Luo part of the programme area. One of them (the Macalder holding ground) was nearing completion when we visited the area. We suspect however that these holding grounds may not be used to capacity. One indication is that a senior livestock marketing officer posted to the area specifically for this aspect of the programme had to be withdrawn from the area on grounds that he was idle. We are not sure of what became of the slaughter house proposed for Macalder in the "1st Draft Programme - Migori" of 1969. If the present activities were to be tied to such a project, its chances of success would be more enhanced. If a slaughter house were to be planned for Macalder, the present butchereries in the area would automatically have to be supplied from Macalder. Of course this would be a major project with a lot of both economic and political ramifications. We suggest further investigations into this by an agricultural economist with special interest in this field.

OVER ALL ASSESSMENT OF THE AGRICULTURAL PROGRAMME

The overall assessment of the agricultural programme must of necessity focus on:

- (a) its effectiveness i.e., the degree to which the proposed services actually reach the clients (farmers) and achieve their intended objectives.
- (b) equity consideration i.e., the fair distribution of the benefits and opportunities among prospective clients.
- (c) efficiency consideration i.e., the most favourable ratio of cost to outputs in the range of choices open to the extension workers.

We have identified the services which are being made available to the farmers as:

- (i) Extension education
- (ii) Credit scheme for stockists of agricultural inputs
- (iii) G.M.R. loans to farmers
- (iv) Tractor hire service
- (v) Fertilizer for demonstration plots

(i) To the extent that the extension agents intend to concentrate on the 630 selected farmers at the expense of the 20,000 farm families in the area, the extension service appears to be discriminatory against the unselected farmers. Although the 630 are evenly distributed all over the programme area, they form an insignificant percentage of the farming community. The effectiveness of this scheme is also limited by the fact that the JAAs who are charged with dissemination of extension techniques are themselves ill-prepared for that task. Their own retraining (where possible) is badly wanting.

(ii) The credit scheme for stockists of farm inputs is a good innovation considering the distance some farmers had to travel for farm inputs before it was introduced. But whether the farmers are benefiting from this scheme is still an open question. The fact that even the selected farmers (in our sample) did not know who were their stockists is a cause for alarm. The scheme is also elitist in its orientation. The ordinary peasant farmer does not expect to benefit from this scheme because in the first place the extension agent does not know him, and secondly he cannot qualify for even a GMR loan (so he may be able to buy the requisite farm inputs) because his land is usually less than 15 acres (6 hectares). Yet these are the ^{people whom} SRDP ought to assist improve their standards of living. Considering the situation before this scheme was introduced, we feel it is a good idea to retain this scheme but to make sure that the credit is given in kind and not in cash. This is the only way we can be sure that farm inputs will in fact be available at the appropriate time. But more important, the farmers must be made more innovative than they are at present.

(iii) The G.M.R. loan is mainly for hybrid maize. The fact that those who qualify for consideration must singly or jointly have 6 hectares or more means that it is biased in favour of the "landed families". But this is a national policy which does not only affect the people of Migori-Kuria but also similar families elsewhere in the Republic. If the argument once advanced against

the Master Farmers Scheme by an official of the MOA that the size of ones farm has nothing to do with his farming ability is to hold then the G.M.R. terms must be flexible enough to even cater for those with one acre of land. It is only that way that an equitable distribution of the G.M.R. funds can be realized.

(iv) The tractor hire service like the G.M.R. was also biased in favour of the "landed families". Since priority was given to the G.M.R. loanees, it means that those with less than 6 hectares of land had no access to it. But even for those who did, the service was ineffective for a number of people had their farms ploughed but not harrowed, which means they did not plant anything. If the G.M.R. loans were to be extended to include even those with less than 6 hectares of land, and if the number of tractors were to be increased to a sufficient level (to be determined by the A.A.Os. in the area) this is, no doubt, a good scheme considering that money to hire labour input at peak seasons is one of the most critical constraints in the area.

(v) The F.A.O. fertilizer scheme is an on-going national scheme. This is also a selective scheme and must of necessity remain so. However, the problem with this scheme in Migori-Kuria is that the experience of demonstration plots has not successfully convinced the prospective adopters that they can produce wonders by resorting to the use of fertilizers. We visited a few demonstration plots, but in all of them there was a sense of scepticism. One old man said to us "look, the area on fertilizer is doing worse than the area on cow dung, and there is no difference between it and the area where I put nothing"; the J.A.A.s usually find difficulty in reassuring such sceptics. Because innovations are affected by such experience, the AAO farm management must himself closely supervise this scheme. It is a potentially useful scheme if well managed and we suggest it be retained, but that control plots be done away with.

We have not touched on the efficiency criterion because of the insufficiency of data and hence the problem of computation. We have nevertheless pointed out that a lot still remains to be done if the services currently being offered to the farmers are to be both effective and equitably distributed.

the programme may not have any impact in the area if the farmer demonstrator aspect fails. Whereas we commend the work which the agricultural staff have done since the FAO/SIDA left, much remains to be done, which is understandable given the youth of the programme.⁺

THE ROADS PROJECT

The construction of the feeder roads network is the most conspicuous activity currently being undertaken in the Migori-Kuria SRDP. The roads project was originally to be launched in March 1971 but due to organizational delays, this was not done until December, 1971. Below we single out its major salient features for closer comment.

THE PLANNING PHASE

The programme was designed to build feeder roads to:

- a) provide for the export of agricultural produce,
- b) allow access for government personnel, e.g. extension agents, and
- c) create a feeling of participation in the larger society on the part of the population.

The first planning of the feeder roads in the Migori SRDP area took place in 1969. The result of this exercise is outlined in the First Draft Migori SRDP 1969, (p23.) Kuria area was not included in the survey then. The planners identified some 11 tracks totalling 75 miles which they suggested should be constructed by self-help labour with the government providing minimal assistance of a technical type.

By the time FAO/SIDA team arrived in the area in 1970, a decision had been made to include Kuria in the programme area and a fresh survey of the proposed routes was necessary. This was done in May of 1970.

⁺All the major findings, conclusions and recommendations are to be found in the body of the Report.

The FAO/SIDA team brought in an ILO labour-intensive roads expert who had had experience building labour-intensive roads in Tanzania to perform that task. He prepared a tentative roads plan, with tentative routes and priorities. His plan called for about 175 miles of roads. The roads were to have an 11.7ft. carriageway (13.65 formation width, i.e. including the shoulders) and to be very simple in construction, with inexpensive drifts instead of bridges wherever possible. All the preliminary clearing, earth-moving, etc. was to be done by hand. Simple relatively inexpensive machinery was to be used for grading and finishing; heavy machinery was only to be used in cases where there were large boulders that could not be removed by manual labour, and then it would be brought in only for brief periods. About 200 men would be needed at a time; how much was to be self-help and how much hired labour was left for others to decide. Since the project was experimental and new techniques would have to be developed, a qualified civil engineer would direct it. In the process he would train Kenya foremen (possibly members of the National Youth Service) who could apply the techniques elsewhere. Maintenance was also to be labour-intensive.

Members of the FAO/SIDA team surveyed the proposed routes more thoroughly and produced the report which was the action plan. They found that the length of these routes was closer to 215 miles, and therefore proposed that the roads be made narrower so that the total length could be constructed with the available resources. The width of the carriageway was to be 8ft. and the formation width 11.7 ft. They retained the emphasis on labour-intensive methods, but recommended some different machinery — a dozer blade and a hydraulic tow grader replaced the roller and tow grader originally recommended. They specified that most of the labour was to be self-help. A road would only be built when the people in the area had done all the preliminary road preparation and signed a written agreement to maintain the road. The layout and priorities were very similar to those in the ILO expert's plan. Neither the government officers nor the local people were involved in the planning of the feeder - roads.

Just at the time when implementation was supposed to start, there were reports of people complaining that they had not been consulted over the location of the roads. There was a lot of fuss, but in the end very few changes were made. The one major change was that 2 feeder roads were joined to make a long loop road in Kadem and West Suma locations along the Tanzania border. The resulting road was hardly a feeder road, but it appears to have been much desired by the people.

and is being used, and the change was in our opinion justified.

There were also objections to the proposed width of the roads, (again a manifestation of lack of involvement by Government officers and local people in the planning stage). The local officers argued that self-help groups could not be depended upon for the maintenance of the finished roads, and that the M.O.W. should be brought in to maintain the roads once they were ready. A carriageway of 12 feet and a formation width of 16 feet was what they understood to be the minimum standard that the M.O.W. would accept. Therefore, they insisted on wider roads, and the roads that had been constructed up to May, 1972, were of that standard.

IMPLEMENTATION

The start of the construction was delayed because of uncertainties surrounding the programme and because of organizational struggles. A labour-intensive roads expert was to be hired to direct all the SRDP roads; he was to spend a year in Migori getting the roads programme started and then go to the M.O.W. in Nairobi. Unfortunately, there was a delay in filling the post. (We gathered that such a man may not now be hired after all).

In addition, the M.O.W. was afraid that it would be asked to take over the feeder roads in Migori.

Money for 1970/71 was released only one month before the end of the financial year and was returned without being used. Funds for 1971/72 were released in October but again returned for proper routing following protracted debate over who would control them.

Meanwhile there was political pressure to get something visible on the ground so the construction of the roads began in December 1971 under the direction of a MOW roads inspector. The machinery kept breaking down making the work go very slowly, so heavy machinery was hired and brought in. Although the clearing was done by self-help, the rest of the road was built by standard MOW methods. As of May 13, about 52 miles of roads had been built.

EVALUATION AND RECOMMENDATIONS

Basic Objectives

The objectives of the programme were quite consistent with the objectives of the SRDP. The roads were supposed to help to raise incomes in the area indirectly by providing outlets for agricultural

produce and facilitating access of government resource personnel, and directly by creating employment in an area which had lost a major source of employment with the recent closing of the Macalder mine.

The crucial question, of course, is to what extent there was a real need for road services. How large would the above benefits of the roads be? Would they justify the cost of the construction?

There is no satisfactory method for doing a cost benefit analysis of a roads project. If a method existed in theory, it would have high data requirements. In this case, there isn't any data even on the hard economic costs and benefits, much less the political and social benefits (e.g. it is not even possible to cost the actual road construction). One can only make a rough judgement on the need for the roads in the light of the rest of the SRDP programme.

The ILO expert who drew up the original roads plan was sceptical of the urgency of the need for the roads, since some old roads built by harambee labour had been allowed to deteriorate, and he observed that even where bus transport was available most of the traffic was bicycle, foot and donkey traffic.

Our impression nevertheless is that the feeder roads are needed, and fairly soon. The first road that was built is likely to solve a serious marketing problem for rice-growers along the Tanzanian border and a local bus company is planning to start a bus route on the road. It was commented to us that the use of motor transport by local people had increased noticeably in the last two to three years. Finally the rest of the SRDP program will generate a need for roads, since there are plans to increase production of cash crops, to establish artificial insemination runs, and to develop a regular milk collection run.

The Standard of the Roads

These roads are supposed to be feeder roads, not major traffic arteries. The standard of road proposed in the action plan (8 foot/11.7 foot width) was perfectly adequate for all the roads except possibly the West Suna road, a long road of greater importance than the others. Of course, with the development of the region, the narrow roads might eventually become inadequate, but they can easily be widened and upgraded when it becomes necessary. It would cost somewhat more to improve them than to build them to a higher standard in the first place, but not much more and when discounting is taken into account, it is cheaper to build them to a minimum standard in the beginning. Since funds are limited, there is a choice between more minimum

standard roads and fewer high standard roads. For the balanced development of the region it is better to have more lower standard roads.

Maintenance

As we said above, the main reason why the higher standard roads were demanded is that no one believed that the self-help groups would actually maintain the roads, and the local officers as well as the local people wanted the M.O.W. to take over the roads and maintain them. They believed that the M.O.W. would not take over the 8 ft./11.7 ft. roads. There is no rule that says the M.O.W. cannot maintain unclassified roads of a low standard, but it is true that M.O.W. would be unlikely to take over roads of the standard, but it is true that M.O.W. would be unlikely to take over roads of the standard proposed. But in fact, the M.O.W., having recently taken over responsibility for all County Council roads, has such a backlog of maintenance work on classified roads that it is exceedingly unlikely that it would take over any additional roads for a long time, of whatever standard. The wider roads will be more difficult to maintain. Therefore, we think that the rest of the roads should be built to the 8 ft. standard, even though it may be difficult to do this now that some locations have received wide roads.

The maintenance question should be settled. The written agreements have not been signed, since the local officers say that they could not be enforced anyway. They suggest that a small permanent roads unit be kept in the project area for maintenance. We think that every effort should be made to make funds available for this. There is genuine reason for not wanting the maintenance of roads to be the responsibility of self-help groups. It is difficult to sustain the zeal of self-help long enough. We think that neither the self-help units nor the MOW can be expected to maintain the roads, and that it would be bad for the success of SRDP to build the roads and then have them to be impassable because of poor maintenance.

Self-Help Versus Paid Labour

The benefits of roads may be significant but they are indirect, and people usually do not perceive them to be as important to them personally as the benefits from schools, dispensaries, cattle dips, etc. This is a drawback to generating the enthusiasm needed for successful self-help effort.

We have already raised this issue with respect to maintenance. Although the original plan for self-help maintenance has not worked, it seems that the use of self-help for road preparation has been quite successful so far. However, this is deceptive. Most of the roads that have been built have been based on deteriorated old roads, so the clearing was relatively simple. Some self-help leaders say that it won't work when there is a lot of heavy work to be done. We think that this is true and that the project should plan to rely mainly on paid labour.

Construction Methods

The question is whether or not the construction of the rest of the roads should be by relatively labour-intensive methods as originally planned or by the relatively capital-intensive methods that have been used so far.

There is a strong bias in the MOW against labour-intensive road building. Relative prices are distorted in Kenya. An overvalued exchange rate and no tariffs on "essential" machinery make capital goods look cheaper than they really are relative to the cost of labour. When the different methods of building a given road are costed, the costs may not be that different in money terms, even though in social terms the labour-intensive methods are cheaper. Moreover, there is more uncertainty about the cost of a labour-intensive project. There is expertise in Kenya in capital-intensive road-building. Fewer management problems arise, because it is easier to manage a bulldozer and 10 men than 200 men. Labour troubles may make the actual cost of a labour-intensive project greater, particularly for the first few projects when the new methods are being tried out. There may also be a conflict between such experimentation and rapid completion of the roads. If the value of the knowledge gained for future application is taken into account, such additional costs and delays may be justified but it looks awful on the MOW books so the MOW doesn't want to do it.

It seems to us that although the MOW may be reluctant to undertake such experiments on its own, it should be willing to cooperate with the SRDP experiments. A labour-intensive road-building experiment, financed by outside funds which are making an investment in Kenyan organizational ability instead of machinery can show the MOW engineers that such projects can work (if they can) with a minimum of risk or trouble to them.

The local SRDP staff and the MOW roads inspector think that it has already been demonstrated that the labour-intensive plan was a failure and that big machines have to be used, since the machinery broke down. This is an understandable interpretation from their point of view. But the machinery recommended by the FAO/SIDA team was different from that recommended by the ILO expert and was not suited to the task. The dozer blade was not suitable for any kind of roadwork; the current ILO expert says that the only thing he can think of that it would be good for is shovelling snow. The hydraulic grader is a sophisticated and fragile piece of equipment; the front wheel of the tractor has to be taken off and the grader fitted in between the front and back wheels. The grader recommended in the original was a cheaper, simpler and sturdier piece of equipment which was pulled behind the tractor and required much less expertise to operate. Thus we think that the failure of this unsuitable machinery should not be taken as a failure of labour-intensive road-building. Furthermore the fact that the machinery was ordered for a much narrower road should also be taken into consideration.

Labour Supply

An important question is the availability and reliability of labour. Labour management problems will be lessened if there is keen competition for the jobs and unsatisfactory workers can be easily replaced. There is good reason to believe that there is a large pool of labour available. During the July 1970 registration of the unemployed, it was estimated that between two and three thousand job-seekers registered in Migori and Kihancha. When workers were hired to work on the Macalder holding ground, many times the required number applied for the jobs. There is an agreement that the 10 unskilled labourers now used by the roads unit will be hired from the sub-location in which the road is being built. These jobs are great prizes which are awarded by the sub-chief as a member of the sublocational committee. There was a great outcry when the roads inspector tried to bring in workers from another sub-location for an emergency repair. One of the agricultural staff said that when the big machines were brought in some people said, why are they bringing in these machines? Why don't they hire us to do the work?

The road-building work must be seasonal since it cannot be done during heavy rains. The work is already planned so as not to conflict with agricultural labour demand peaks because of the self-help labour component. The supply of labour seems to be great enough and the timing of the demand for road labour such that conflicts with the demand for agricultural work would not be a problem.

Wage rates. The agricultural wage in the area is 2/- to 3/- a day. Everyone we asked in the project area itself said that there would be no difficulty whatsoever in getting 200 people within walking distance of the road works at a wage rate of 5/- or 6/- a day. At this time, the roads unit is paying a wage of 200/- a month to the 10 unskilled labourers. Formerly they were paying 120/- a month and there was an excess supply of labour at that wage; then they were told by the provincial accountant that they had to pay the government minimum wage of 200/-. This is far too much. We queried this in Nairobi, at the MOW, and were told that there is no minimum wage for casual unskilled labour on road works, and that such wage rates were usually determined in consultation with local leaders, since the workers must be changed on a casual labour basis at a wage rate of 5/- or 6/- a day. Of course, the damage has already been done, to some extent, in that it will be very difficult to lower the wages now. But if the construction methods are changed, and the labour force is significantly enlarged it would probably be possible to re-define the job and conditions of employment so that wages can be lowered without an outcry.

When we talked to the current ILO expert in the middle of May, he was intending to restore the experimental labour-intensive aspect to the roads project. It was not definite whether the project would be run by a roads inspector supervised by him from Nairobi, or by a qualified roads engineer. We think that the value of the project as an experiment would be greatest if it were run by a qualified engineer who believes that labour-intensive road works can work and preferably has experience with them. The man should have technical expertise since it will be necessary to develop appropriate techniques. If the project is run by someone who thinks that the only way to build a road is with heavy machinery, it is very likely to fail.

Costs

We had hoped to prepare a simple cost comparison of the two methods with and without shadow-pricing of foreign exchange. This is not possible; the necessary information is simply not available.

One of the most important contributions this project could make is to provide some hard data on the costs of relatively labour-intensive road-building in Kenya so that the choice of techniques could be made on a rational basis.

There is a study at the MOW comparing the cost of roads made entirely with labour to roads made entirely with capital equipment, showing that the first costs four times as much as the second. But it should be strongly emphasized that at no time in the history of this project was it suggested that no machinery at all be used. Rather, the idea was to experiment with a different mix of men and machines - one that was more heavily weighted toward the use of manual labour than present methods. It seems to us very likely that such a mix would be cheaper in terms of social cost, and might very well be cheaper in actual cost as well.

SOME CONCLUDING OBSERVATIONS

The departure of the FAO/SIDA team from the area in November 1971 marked the end of the protracted organizational struggle. Things began to happen immediately. The feeder roads construction began within a month of their departure. The conclusion which can be drawn from this is that if the FAO/SIDA had not been in the area in the first place the delays which the programme experienced might not have been there. But now that the project is off the ground the major question is, will it contribute to the realisation of the SRDP objectives? Our observation is that it has the potential to do that provided that other complementary schemes (such as intensified crop production, A.I runs etc) are tied to it.

+All the major findings, conclusions and recommendations are to be found in the body of the Report.

SPECIFIC QUESTIONS FOR EVALUATION

These answers to questions given in our Terms of Reference are not exhaustive. The reader is strongly advised to read the main body of the Report, for further elaboration on these.

Question 1:

IS THE PLANNING FRAMEWORK DEVELOPED FOR SRDP ADEQUATE OR EFFECTIVE TO MEET ITS PRINCIPLES AND OBJECTIVES?

In Migori-Kuria, the D.D.C. is not institutionally very much involved in SRDP planning. A number of District departmental heads are, however, involved on an individual departmental basis. Hence the "real" planning framework developed for the SRDP in the area tends to push the D.D.C. into the background.

What has emerged since February 1971 is a system of Divisional committees similar in membership and functions to the District Committee. These are the Project Advisory Committee (Divisional heads of departments, local MPs and County Councillors) and the Project Standing Committee (only divisional heads of departments). The latter is the more important. It meets every month, and when it was first formed it used to meet fortnightly. It is at this committee that the SRDP projects are identified and estimates discussed. Discussions at these meetings (one of us has attended a number of them) are more thorough than those at the DDC. Departmental problems are viewed in the context of an integrated programme and Divisional heads of departments are more willing to discuss their departmental problems than the District heads used to at the DDC. This is partly due to the fact that they are closer to the problems involved and can discuss them meaningfully. It is also partly due to the fact that the Area Co-ordinator who chairs these committees is, unlike the D.C. in the D.D.C., capable of helping his divisional colleagues solve the bottlenecks in their respective departments. He has certain access and resources for the programme which the D.C. does not have for the entire district. One tends to deduce, therefore, that the planning framework developed for the Migori-Kuria SRDP is an improvement over the old system (i.e. isolated planning of the programme by the individual heads of department with the D.D.C. merely giving final approval).

The Migori-Kuria system satisfies certain principles and objectives of the SRDP. Closer participation by the divisional

heads exposes them to planning and therefore gives them experience in planning matters. Two things are satisfied: the principle of replication and the more immediate objective of strengthening the Kenya machinery and personnel on development matters. But the other more ultimate objectives such as employment creation, income generation and the improvement of the quality of rural life cannot be expected to be achieved by the existence of an adequate planning framework. These can be attained by the existence of not only adequate and effective planning framework but also effective and adequate implementation framework.

Questions 2 and 3:

IN PLANNING THE SRDP WAS THE UNEXPLOITED POTENTIAL FOR DEVELOPMENT OF THE AREA ADEQUATELY ASSESSED? WERE THE PROBABLE CONSTRAINTS PREVENTING THIS POTENTIAL FROM BEING MAXIMALLY EXPLOITED ADEQUATELY ASSESSED?

In Migori-Kuria as in any other SRDP area, the unexploited potential of the area seems to have been wrongly assessed and identified. This comes out very clearly as one looks through the pages of the 1st and 2nd Draft Programmes Migori-Kuria. In the first Draft, Migori was depicted as an area of high potential where each family could establish rights over at least ten acres of land. This was said without any survey having been carried out in the area to confirm the assumption. Furthermore, ecological variations were not taken into consideration. The second Draft Programme did address itself to some of these weaknesses but still fell short of coming out with the correct assessment when the authors identify the major unexploited potential of the area to be the people.

The problem with land use is not that it is unexploited but rather that it is exploited uneconomically so the problem is one of increasing acreage productivity rather than expansion of acreage under plough. On the people issue, the history of self-help participation does reveal that they have been "maximally" exploited. There are several projects which they have successfully completed and also those they have been unable to finish. The bottleneck, therefore, seems to be one of how to increase productivity.

Some very fundamental limitations arise. Acreage productivity cannot be increased unless the extension scheme succeeds. Loans to prospective farmers are also limited by the lack of title deeds. GMR loans (in which title deeds are not considered) help

only maize growers, especially those with more than 6 hectares (15 acres).

Question 4:

TO WHAT EXTENT ARE THE SRDP PROJECTS INTEGRATED OR CO-ORDINATED WITH ON-GOING PROGRAMMES AND TO WHAT EXTENT HAVE ON-GOING PROGRAMMES BEEN LABELLED SRDP?

The only visible project in the area is the roads. There are, of course, the holding grounds and the input credit projects but these are co-projects tied to other projects which have not taken off. The roads project is not integrated or co-ordinated with the regular M.O.W. road building programme. There is a regular M.O.W. representative in the area stationed at Migori township but he does not even know which are the SRDP roads. M.O.W. is in a way responsible for this state of affairs since from the beginning they have been reluctant to "adopt" the SRDP roads. The funds being used for the SRDP roads are not managed by the local M.O.W. officers but by the Area Co-ordinator.

There are some regular sub-on-going projects which the SRDP proposes to intensify and which in the process have been labelled SRDP. These include UNICEF supported water schemes, tobacco production, dip construction etc. Most, if not all, of these predate SRDP yet they are all being labelled SRDP today even though SRDP funds are not supporting them. (For this indiscriminate inclusion see "The SRDP Progress Report, 31st March 1972" EPD 237/010 dated 12th April 1972).

Question 5:

TO WHAT EXTENT ARE THE STRATEGIES AND APPROACHES TO ACCELERATE RURAL DEVELOPMENT IN THE SRDP AREA NEWER OR MORE EFFECTIVE THAN THOSE WHICH THEY REPLACE OR SUPERSEDE?

Regarding the projects already on the ground, there has been very little departure from the old practices. The agricultural extension experiment being conducted in the area contains no new elements in terms of approaches and message to the farmers. The roads construction which was originally hoped would adopt a labour intensive strategy has thus far not done so. We did not notice any marked change in development strategy.

Question 7:

WERE THE FUNDS, STAFF, EXPERTISE, ADMINISTRATIVE COSTS
ETC., ESTIMATED FOR AND PROVIDED TO SRDP AREAS ADEQUATE?

(a) Funds: There was delay by SIDA to commit herself formally to the financing of the Migori-Kuria programme. Because of this, the G.O.K. was also reluctant to release funds for the programme without any firm reimbursement guarantee. The G.O.K. managed at last in May 1971 to release the funds but too late to get the programme launched in July 1970 as had been expected. Enough was released but not spent because of its being released only a month before the end of the financial year. SIDA has now formally committed £540,000 to the programme for a period of five years beginning July 1971. Of this about £70,000 had been spent by the end of May 1972. One would think that the funds which have been committed to the programme are more than enough considering the question of replication.

(b) Staff: Progress has been rather slow. Departments like Community Development still do not have the critical personnel they need. About three locations in the area have no Community Development Assistants. M.O.W. has not been able to second to the area a qualified roads engineer. As a result, a roads inspector, who in effect is an administrator, is being used in place of an engineer. Department of Co-operatives has only one person in the project area. He has a V.W. but no driver. The AAO, Kuria had no vehicle and therefore is immobile. The additional agricultural staff approved in the 1971/72 estimates has not been engaged. The picture is the same in almost every department.

(c) Expertise: Generally speaking the programme can be managed with the present level of expertise available. There are, however, certain areas which require special attention, for instance a need to upgrade the quality of agricultural extension agents. The roads project also requires periodic engineering advice, especially where an entirely new routing is involved. Otherwise we are convinced that the present level of expertise available at the Divisional level is adequate provided it can be supplemented with occasional advice from above.

(d) Administrative Costs: The terms of reference of the FAO/SIDA were not clear. Authority relationships in the planning and administration of the programme were also unclear. There was a lot of stepping on people's toes as a result of this. In part, that was responsible for the delay in launching the programme.

(e) Special Training: This has been proposed for the extension staff in agriculture but not much has been done in this regard.

(f) Equipment: Road construction suffered momentarily at the beginning. This was mainly due to the breaking down of the small machinery which SIDA-FAO Team had ordered. A later decision to expand the width of the roads by another 4 feet may also have brought additional strain on the machinery. The Area Co-ordinator was, however, quick to correct this by hiring heavy machinery for the construction work.

Question 8:

HOW EFFECTIVE HAS THE ROLE OF THE AREA CO-ORDINATOR, DISTRICT DEVELOPMENT COMMITTEES AND THE MFP IN ITS CAPACITY OF OVERALL CO-ORDINATOR BEEN?

(a) The Area Co-ordinator: The institution of Area Co-ordinator is a positive innovation. In Migori-Kuria, he has turned out to be the backbone of the programme. He gets the officers at the various administrative levels on the move by trouble shooting, chivying etc. In a number of cases he has solved problems for the departmental heads. In one instance, he drove a landrover from the headquarters to the programme area after there had been a long delay in its release and handed it over to the head of department concerned. In another case, he prepared a draft programme for a department whose head had been unable to do so. The roads projects would not have gotten off within weeks after the departure of SIDA-FAO from the area had it not been for the effective leadership of Ben Wanjala - the Area Co-ordinator. What has made him more effective in discharging his duties is his collegial approach to the problems facing the programme.

D.D.C. For comments on the DDC see Question 1 above.

(b) NRDC (Secretariat) A study of the relevant files in both Kisumu (P.P.O.'s office) and at Macalder show that the Secretariat has had some surveillance over the programme. But they could have done still more by helping the lower level officers

to get the Ministries to release the approved funds in time.

The Area Co-ordinator Migori-Kuria has had to make several trips to Nairobi to iron out certain bottlenecks in the Ministries. This is a job which the MFP (SRDP Unit) should do, releasing the Area Co-ordinator to concentrate on local level problems which equally demand his attention.

Question 9:

TO WHAT EXTENT HAVE LOCAL COMMUNITIES BEEN ADEQUATELY INVOLVED IN THE PLANNING AND IMPLEMENTATION OF (SRDP) AND TO WHAT EXTENT HAS THIS INVOLVEMENT BEEN PREMATURE, TIMELY OR TOO LATE?

At the start of the programme the MFEP tried to discourage what they called "premature involvement", their position was that people should not be involved unless there was something tangible to tell them. The officers at the local level, on the other hand, would have liked to get people mobilized right from the start.

The one single project in the area which required closer consultation with the local communities during the course of its planning is the roads project. This is so because it relies on self-help labour for pre-construction work (bush clearance, removing of stumps, stones etc) and for post construction maintenance. Yet throughout the time the routes were being identified by SIDA-FAO, no local communities were involved. When construction was about to start, the mistake was recognized and corrected. This obviously delayed action on certain routes. In the end, as a result of a dynamic campaign by the newly arrived Assistant Community Development Officer - Philemon Oluoch, the self-help groups were organized and involved. This was inevitable if implementation of the roads project was to be a success.

Question 10:

TO WHAT EXTENT ARE THE STRATEGIES AND APPROACHES DEvised FOR THE SRDP PROJECT REPLICABLE IN THE COUNTRY AS A WHOLE?

It would be premature at this time to come up with any firm recommendation about replicating Migori's experience considering that:

- (a) The roads project has only been on the ground for eight months and does not even have in it anything experimental to replicate.
- (b) The agricultural programme has not ever shown any sign of having started save for the selection of the farmers. There are however, new services which have been introduced such as tractor hire service but some of these are not necessarily SRDP initiated.

With respect to the committee structure, we would strongly recommend that the Divisional Development Committees be strengthened. Migori's experience as outlined above (Question 1) shows that this is the most appropriate level to plan for divisional development. Relative to the D.D.Cs, the Divisional Development Committees are closer to the local problems and are therefore in a position to come up with realistic proposals assuming existence of qualified staff.

GENERAL

In sections I and II we discussed the agricultural and roads projects respectively. In this section we have attempted to answer the specific questions for evaluation focusing our comments on Migori-Kuria. For the national outlook, the reader is referred to Part III of this Report which is a synthesis of views from all the SRDP areas.

Again we wish to reiterate that the Migori-Kuria experience can be "read" within a broader national context. We do not claim to have raised all the issues involved in the Migori-Kuria SRDP. We could not even if we wanted to. The only way to understand these problems is closer monitoring of the programme. We suggest that this be done not only by outsiders but by local level officers as well.

THE TETU SRDP
The Extension Pilot Project and 4K Club Project

by

C. Barnes

J. Heyer

S. Almy

- I. The Strategy
 - A. The Outline Programme
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ACKNOWLEDGEMENTS

The Tetu report evolved in a very different way from the other area reports which form the appendices to this SRDP evaluation. Due to a variety of unforeseen factors, it was not possible to get an independent evaluation of the Tetu SRDP projects until the group was nearly at the end of its work. Thus the report that follows was written on the basis of papers by the IDS researchers involved in the Tetu SRDP, and a preliminary paper written by E. Baum specifically for the SRDP evaluation. The authors do not have first hand knowledge of field conditions, or much independent evidence on the Tetu projects concerned, but it was felt that sufficient information was available in the numerous IDS researchers' papers and in the Baum paper, for it to be possible to undertake a Tetu report in these conditions. It is hoped that it justifies itself as a worthwhile contribution.

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THE OUTLINE PROGRAMME

The SRDP objectives laid out in the Outline Programme for Tetu prepared in 1969 were "to enable small scale farmers to break out of subsistence cultivation and larger farmers to develop and provide employment." The hope was expressed that "economic diversification and the development of infrastructure will present employment opportunities and improve the amenities of rural life". (1, p.2) The initial thrust of the programme was to centre on agricultural production and marketing. The programme strategy to achieve the objectives was stated as follows:

"An intensive extension effort, concentrating on farm management and credit, will be mounted for farmers selected for their potential for response to these inputs. Written materials including a farm management manual, will increasingly be used to exploit the high literacy rates in the area. The capacity of the Wambugu Farmers' Training Centre will be expanded. A campaign for the extension of 4K clubs for young farmers will be launched.. Special attention will be given to hybrid maize cultivation. In addition tea, pyrethrum, coffee, pigs, dairy and beef will be improved and extended as and when possible. Institutional arrangements for co-operative marketing will be rationalised..." (1, p. 2)

We were asked specifically in our terms of reference to look at the Tetu Extension Project, the Farm Management Project, and the 4K Club Project. This paper centres on the Extension Project, but it also includes a brief section on the 4K Club Project. The evaluation team was not able to cover the Farm Management Project at all. Each of these three agricultural projects in Tetu has evolved its strategy independently and operates independently. We have referred to this in our overall report where we recommend the integration of related projects such as these.

EVOLUTION OF THE STRATEGY

The detailed definition of the strategy of the "intensive extension effort", evolved over a considerable period of time through a series of meetings between Government officials at all levels and researchers from the Institute for Development Studies (IDS). Before these discussions started, however, a baseline survey was carried out, towards the end of 1970, under the supervision of the IDS researchers.

The 1970 Baseline Survey and Initial Strategy Outline

The primary purpose of the baseline survey, which was exploratory in nature, was to record facts about the Division on which strategies could be based. The survey was also designed to collect initial information as the first part of an experimental process in which the effects of different strategies would be measured. The survey produced information on the adoption of new crop and livestock enterprises and their accompanying husbandry; sources and extent of communication linkages; types of extension contact; farm level resources; and characteristics of the farm family, particularly the decision-maker on the farm.

Aiming at greater equity among the rural people, the concern of the researchers was with more widespread adoption of income-producing activities. They felt that this could be achieved by improved extension. As they put it:

"How can rural development innovations be put into practice as forcibly as possible? It is our contention that the solution rests to a very large extent with the government extension personnel who are the principal agents of change in the rural areas." (2, p.2)

This initial concentration on extension services to the exclusion of all else has been the subject of criticism, particularly in academic circles. The researchers responded to this criticism by acknowledging it in later papers, by adding the provision of inputs and by encouraging and calling for research on other factors. In a paper written in October 1971(3), the researchers raised the issue of exclusive concentration on extension. They stated "while extension training and retraining are necessary for achieving SRDP aims (increasing per capita production) they are by themselves not sufficient". (3, p.9). In that paper they identified as in need of attention other factors such as:

- (1) family planning and population control;
- (2) agricultural diversification; and
- (3) diversification of rural employment.

An intensive study of marketing opportunities and the packaging, distribution, advertising and local retailing of agricultural inputs was also recommended.

Information was gathered on 354 farms, which were randomly selected. Analysis of the collected data took two forms. The first was to list the adoption of various practices, procedures, etc., according to sub-location. Secondly, the 354 farmers were ranked according to degree of progressiveness and divided into four categories: most progressive, upper middle progressive, lower middle progressive and laggards. These categories formed the basis for presenting data showing variations between the farmers of each category. More details on the baseline survey and the method by which the progressiveness levels were formulated appear in Section II below (pp E - 22,23).

Early in 1971, draft tables in which the data were presented by sub-location and progressiveness, were produced. The way in which these were used is described by the team of researchers as follows:

"Before publishing these results in Nairobi, however, the team went to Nyeri and presented them to provincial, district and divisional officials, explaining the findings, cross-checking the conclusions and drawing attention to the diagnosis of low adoption and inequity as bottlenecks to further development.".....

and

"The meetings held to present the data proved very important for strategy development: Not only did they create familiarity and confidence that the researchers would not run off with the data without contributing to Tetu, they also allowed the researchers to collect feed-back on their initial interpretations. Naivetes and misinterpretations were thus avoided.

However, the main function of the meetings was to provide an opportunity for local officials to brainstorm within the context of the baseline findings and their general implications for rural

development. And it was those brainstorming that led to the break-through which provided the nucleus of a practicable strategy." (14, p. 30 and 31).

The first report (2) of the research findings and their implications for strategy development was written after these meetings. The report contained an outline strategy the basic elements of which had emerged at the Nyeri meeting. Its instrumental objective was "educating extension personnel in the techniques of reaching all sections of the community with maximum efficiencies and minimum expenditure of additional costs, effort and time" (2, p.39) in order to increase the rate of adoption of income - producing innovations thereby increasing the income of all sections of the community.

The instrumental objective of educating extension personnel was geared to the immediate objective of increasing the adoption of income-producing innovations by all sections of the community, the emphasis being on equal emphasis on all sections to correct the prior bias towards the more progressive. It was thought that that this would lead to an increase in income for all sections of the community. Alternative strategies to increase total income do not appear to have been seriously considered. It is possible that by concentrating on the most progressive more total income will be generated and even the income generated for the poorer sections of the community through increased employment both on the progressive farms and in service industries will be greater. It was assumed that the desired state would be increasing incomes through income producing activities on every individual's own land. In addition, it was assumed that extension was the right instrument to use, and that a more equitable distribution of extension services would lead to more equitable and higher distribution of income.

The first stage of the strategy, based on the belief that neither FTC teachers nor extension personnel are trained "how to teach what content to whom with what effect", called for the entire rewriting of the existing curriculum at Wambugu FTC. The proposed new curriculum would actually consist of four separate curricula, one for each progressiveness group. In this first stage the teachers at Wambugu FTC would receive training by university staff in both teaching content and teaching methods. In stage two of the strategy the FTC teachers, newly trained and prepared in teaching the new curricula would hold classes for the field extension staff, the purposes being to give the FTC teachers experience in using the

skills taught and to pretest the efficiency of the new stratified curricula. The training of farmers was stage three. Farmers were to be selected in homogeneous progressiveness groups, each group receiving instruction for its level of progressiveness using the appropriate new curriculum. The farmers would be followed up by JAA's each of whom would have a list of their clients who had attended the newly designed courses. Once a farmer had adopted the practices recommended at the FTC course for his level of progressiveness he could return to the FTC for the curriculum developed for the next progressiveness level. Thus, he would progress through the series of innovations until he reached those associated with the most progressive farmers. Finally, stage four of the overall strategy was the evaluation of the effect of the treatment.

Draft Strategy Proposals October, November 1971.

A draft strategy proposal (3) was prepared for discussion with local officials in Nyeri in October 1971. In this proposal it was assumed that the FTC staff were conversant with the technical skills which they were teaching, and that the missing ingredient was skill in teaching techniques. Another point that was stressed was the need to make extension staff familiar with the level of progressiveness of their clients, and to this end a simple Farm Record Card was to be drawn up enabling them to classify their clients into progressiveness categories. Details concerning farmer selection for training at the FTC were left open, although it was envisaged that the Farm Record Card would also be used for this.

Further elaboration on the strategy appeared in November 1971 in a paper entitled "Accelerating the Flow of New Ideas to Rural People: A Proposal for a Pilot Extension Training Effort in Nyeri". This paper (4) was presented at the Workshop on Co-ordinating Education for Rural Development, through Mass Media, Kenya Board of Adult Education, Nyeri, 29th November - 3rd December, 1971.

The idea of waiving FTC course fees appears for the first time in this November proposal. The creation over time of multipurpose curricula is envisaged although the initial effort is to be directed to the agricultural component of the curriculum.

To enable farmers attending the newly revised courses to adopt the recommended practices, small quantities of trial samples are to be provided free of charge. The free provision of such input supplies as seed, fertilizer and pesticides was to enable the farmers to experiment on a small plot, without incurring a financial risk.

A completely new dimension was added in the November proposal: the ranking of field extension workers. The proposal called for objective measurement of a field worker's effectiveness. Research was to be carried out to determine the present performance of field extension workers, particularly identifying the characteristics and extension techniques of the more successful versus the less successful. This research would lead to developing a measure of productivity which would be used in classifying field workers into levels matching the categories already developed for farmers. It was then intended to identify less sophisticated field workers and get them to specialize in simpler, more elementary agricultural techniques. This aspect of the strategy was not to be implemented at the beginning of the Extension Pilot Project, but it was proposed as a component to be added at a later stage.

The Pre-Implementation Strategy

The details of the strategy as it stood at the end of 1971 were (15):

(1) Curriculum Development:

The technical information was to be based on recommendations in the Ministry of Agriculture "Crop and Livestock Manual". The contents were to be broken down into courses designed for different levels of progressiveness. The teaching methods part of the curriculum was to be developed by the IDS researchers in conjunction with the Institute of Adult Studies, FTC teachers, and the field staff.

(2) Training FTC Staff in Communication Skills:

IDS staff were to carry out the training of FTC staff. Once the curricula were completed, the FTC staff were to practice on JAA's who would attend courses as indicated in (3) below.

(3) Training JAA's:

The newly developed curricula were to be pretested on the JAA's (a) to give FTC teachers an opportunity to try out their newly acquired skills; (b) to acquaint JAA's thoroughly with the material in the curricula to ensure effective follow-up; and (c) to give JAA's the chance to modify the curricula if necessary in the light of field conditions.

- (4) Indexing Farmers on Progressiveness:
Using the scale developed in the baseline study, all Tetu farmers were to be given progressiveness scores. The JAA's were to collect the information required to obtain the progressiveness scores, using the Farm Record Card designed by the IDS researchers.
- (5) Central Registry of Farmers:
All data collected in (4) above were to be stored in a central registry in the District Headquarters. This was to be used as a basis for selection for FTC courses, and for other purposes.
- (6) Recruiting Farmers:
Farmers would be selected by the District Headquarters staff, using the central registry, but recruitment-persuading the farmers to come-would be done by JAA's. Free courses were to serve as an enticement.
- (7) Training Farmers:
One-week courses were to be held, providing for a maximum capacity of 130 at one time
- (8) Provision of Free Inputs:
Participants in the FTC courses would be given small quantities of free input supplies, appropriate to the content of the course.
- (9) Follow-Up by JAA's:
JAA's would be provided with lists of clients who had attended particular courses. They would then ensure that participants in the courses followed the recommendations that had been taught.
- (10) Evaluation:
The project was to receive careful monitoring and evaluation to assess its effectiveness and to allow for the possibility of replication.

This plan relied fairly heavily on university staff for training and curriculum development, and on some outside agency for evaluation. It included a system of indexing of farmers and storing the information centrally, which would involve a substantial administrative load. Free courses were included on the grounds of experimentation and the notion of free samples like industry gives was based on a misconception of the amount needed. Both were incorporated without serious consideration of replicability or finance. It was envisaged that JAA's would be involved in follow-up without taking into account the feasibility in relation to their other duties. These problems became evident in the implementation process.

IMPLEMENTING THE PLAN

Training FTC Teachers

The one-week training course for the 7 teachers from Wambugu FTC was prepared jointly by the IDS research team and the director and members of the Institute for Adult Studies. The course was held at the Adult Studies Centre, Kikuyu, from 14th-19th February. The course was based on the following principles:

1. it was to concentrate on practical teaching skills which could be used in the FTC.
2. it was to maximise participation by FTC teachers, that is, they were not only to be told how to do things but always to be given a chance to do them themselves.
3. the course itself was to be an example of the very teaching methods recommended in the training, and
4. the course was to use a non-directive approach to teaching, whereby participants themselves discover answers to problems instead of being told what they are supposed to do (15, p.36).

The first two days of the course centred on an introduction to communication principles, information about the problems of adult learners, and the process of adoption of new ideas. The third day focussed on teaching techniques such as discussion groups, role playing and visual aids. The FTC staff took over the class on the fourth day to present their own case studies, role playing, demonstrations and lectures.

The final day covered the selection of different teaching methods when planning lessons and the role of feed-back and evaluation.

The course was viewed as very successful both by the participants and by MOA observers. A similar course for all FTC teachers involved in JAA Training Programmes was requested by MOA, and this replication took place from 5-9 June 1972. Thus an important part of the Tetu Extension Project was replicated at a very early stage.

Nyeri Meeting 25th April, 1972

At the request of the SRDP Linkman in MOA (Letter 17th March, 1972) specific proposals on further implementation of the Tetu Extension Project were prepared by the IDS research team in March-April 1972. These were presented in a Working Paper (7) for a meeting held at Nyeri, 25th April, 1972. The paper outlined the strategy which had been developed and reasons for it; action to date; and then focussed on the next steps and presented a time-schedule for finalising these. The next steps were: curriculum development, farmer selection, and JAA involvement. Arrangements still had to be made for the financing of fees, free input supplies, and farmer transport. The researchers proposed that an initial start be made with a curriculum for farmers in the "lower middle progressive" category who had not adopted either hybrid maize or grade cattle.

The meeting of 25th April was chaired by the PTC and consisted of the PDA and other provincial, district and divisional officers from MOA and MFP; Nairobi based persons in MFP, and MOA; and university personnel from IDS and IAS. The main recommendations and decisions taken were:

1. The first experimental courses would be aimed at below-average farmers from Upper Tetu, where advantage could be taken of the Gathano growing season which was said to start in July.
2. The curriculum was to cover hybrid maize and livestock management and aim at farmers who had never grown hybrid maize or kept grade cattle.....The technical points to be covered by the curriculum for a one-week course were to be worked out by the PTO and the technical staff at a meeting on 2nd May. The IAS and IDS would then take over to prepare a draft teaching curriculum which was to be discussed by FTC teachers and JAA's on 18, 19, and 20 May.....

3. Course fees were to be reimbursed to the FTC in the form of bursaries totalling K shs 3,750. The Treasury was to be approached about these funds by officials present at the meeting.
4. Although the working paper had suggested that the short rains in lower Tetu should also be utilised during the experiment, the meeting counselled against this because of the unreliable nature of the short rains. Therefore, the meeting decided that only farmers from the ten sub-locations with high lands would be considered. Twenty-five farmers from each of 8 sub-locations and 25 from two sub-locations with only small high areas, totalling 225 farmers, were to be trained in 4 courses of 50 farmers and one course of 25. The dates were set for five one-week training course keeping in mind completion of courses before the start of the season on 1st July.
5. Farmer selection would be carried out by the AAO and his staff in the Division (AA's and JAA's). They would be briefed by IDS personnel on the revised Farm Record Card at the FTC on 2nd May. It was decided that the sub-chiefs of the sub-locations in question should also be asked to attend the briefing.
6. The free sample supplies were to be enough for $\frac{1}{2}$ acre of hybrid maize and $\frac{1}{4}$ acre of fodder crops. It was felt that 112 acres of hybrid maize would be a tangible result of the experiment..... The sample supplies would consist of 5 kg 613 C hybrid maize seed, 50 kg 20-20-0 compound fertiliser, 2 kg DDT dust, cuttings of Napier grass and fertiliser for the Napier grass. Exact requirements for this fodder crop were to be decided....
(15, pp. 37 - 38).

Thus the intention was to make a start with a programme for below average farmers from Upper Tetu. Farmer selection was to be done at the Divisional not the District level, as the central registry plans had not yet been followed through. The decision to start with hybrid maize and livestock management was based on a discussion of various alternatives.

Meeting 2nd May, 1972

Prior to the meeting with the extension staff and sub-chiefs the researchers revised the Farm Record Card which was to be used for collecting data on the basis of which the farmers were to be selected and data to which the FTC teachers could gear their teaching. But, with the first course scheduled for the 24th May, it would be impossible to collect information on all the farmers in Upper Tetu, using the Card. Another method of selection of course participants had to be devised.

At the meeting on 2nd May, attended by the researchers, the PTO, AAs, JAAs and sub-chiefs, the participants decided that "no hybrid maize" and "no grade cattle" should be the criteria for selection and that the selection should be done by a locational committee of sub-chiefs, AAs and JAAs. (See p. 25 for more details).

In recruiting the farmers, no mention was to be made of free supplies, since this was still tentative. A free course and free transport from a central collection point in the sublocation were to be used as incentives in the recruitment process.

Also, at the meeting an important alteration in the timing of the courses had to be made. It emerged that the Gathano season, previously assumed to begin on 1st July, begins on 15th June. Since farmers would benefit much less from instruction beginning after the start of the season, the time-schedule had to be collapsed, and it was decided that each course should last for only 3 days. Thus, the total of 225 farmers were to receive instruction from 24th May - 14th June.

Curriculum Discussion 18th - 20th May, 1972

The meetings of 18 - 20th May were attended by the FTC principal, all FTC teachers, and AAs and JAAs of Upper Tetu. The Farm Record Cards on the 225 farmers, which had been completed by the JAAs, were analysed. The purpose was to acquaint those at the meeting with information about the participants of the forthcoming courses.

Next a draft of the curriculum was discussed in detail. This draft had been a combined effort of:

- a) the PTO and technical staff preparing a list of topics to be covered on hybrid maize and livestock management.
- b) members of IAS, IDS, and MOA's extension advisor having developed the curriculum based on the technical points. The discussion brought out weaknesses in the proposed curriculum and time-schedule: the major one being that

due to the transport situation only $2\frac{1}{2}$ days were available for classes, and the time allocated for the different subjects was too limited to allow for demonstrations. Thus, the decision was made for the training course to be entirely devoted to hybrid maize growing.

Another problem emerged. The strategy called for JAA follow-up on planting, dusting and storage. Since all course participants would be planting at approximately the same time, and this coincided with the time all the rest of the JAAs' clients would be planting, including members of the SRDP 4K Club project, and with preparation for the Nyeri show, the JAAs felt that they would be unable to carry out the follow-up which was called for course participants. No solution was found so the PDA's advice was to be sought.

Meeting 24th May, 1972

As the first class was being held, a meeting of the PDA, PTO, Provincial Crops Officer, DAO, AAO (Tetu), the AAs of Upper Tetu and one of the researchers was held to discuss the problem of follow-up. The conclusion resulted in the addition of another dimension to the Extension Experiment. Farmers from a given sub-location would divide into groups (of 4-8 persons) at the end of the course; each group would work together, on a rotational basis, to plant maize on each group member's holding and the JAA would attend when planting began on the first farm. Thus, the JAA would be required to visit each group once. The additional rationale for these groups was that they would re-inforce the impact of the teaching received at the FTC, ensuring that information was remembered, that the recommendations were correctly applied, and so on.

The PDA raised another issue: was the intent to provide the input supplies free in keeping with SRDP principles? The meeting reconsidered this part of the strategy. They concluded that the supplies should be given as loans, which would amount to shs 49.25 per farmer. This modified another element of the experiment: from the provision of free inputs to the very different proposition - inputs on credit, with all the loan collection machinery and sanctions that that implied.

The FTC Course May-June 1972

The course began by asking farmers "what do you know about hybrid maize", to learn of the information-level of the participants. Then, it proceeded to a discussion on the differences between:

- (a) growing local maize,
- (b) local maize with fertiliser, and
- (c) hybrid maize with fertiliser.

The following sessions covered land preparation, fertiliser application along with a field demonstration and practical exercises, pests and weeds (again including a demonstration and practical) and storage of maize. Throughout the course the teachers used a variety of visual aids and teaching techniques. Hand - outs written in Kikuyu were made available about the material covered. At the conclusion of the course the farmers formed themselves into groups quite willingly, and set out rules such as anybody who did not come for group work or who sent someone to replace him would not be helped on his farm (9).

From 24 May-14th June, a total of 217 farmers attended the course, 30% of these being women. All the farmers accepted the condition of the loan and all but one of these actually picked up supplies. The JAA's attended the course along with their clients, which was a deviation from the original plan according to which they were to be trained by FTC teachers as a form of pre-testing the curricula and acquainting them with the material to be taught to their clients. It is not clear whether the intention was that they attend only the first time a course was given, but it is important to consider how crucial their attendance was to building up a relationship with the farmer participants and ensuring effective follow-up.

Follow-Up

So far, only the first part of the follow-up, on planting, has been monitored. Follow-up on dusting and storage was also in the plan. According to evidence gathered by an IDS researcher in August 1972, all course participants seem to have been reached, in groups, in the planting demonstrations. It also emerged, however, that 21 of the 47 farmers interviewed at that time said that their groups had ceased to function as groups i.e. that they had only come together for the planting demonstration (15, p. 66) .

Loan Collection

The details of the machinery for loan collection have not yet been finalised. The collection of loans may be done through the farmer groups. Chiefs are to convene meetings to assess the groups' views on repayment. It has been decided officially that the chiefs will be responsible for collecting the money, and the question remains to what extent they

will use the farmer groups. All repayments are to be banked in an SRDP Tetu Revolving Fund Account. (16, p.5).

CONCLUSIONS

The Tetu Extension Pilot Project abides more closely with SRDP principles, particularly the principle of experimentation, than any other SRDP Project studied by the evaluation group. Considerable effort has gone into keeping the project consistent with SRDP principles, and the project has been reasonably successful in this respect. Credit for this must be given both to the Government officials who were instrumental in the planning and implementation of the project and to the IDS researchers who played a considerable role in getting the SRDP principles understood. We have cited one instance in which a Provincial officer objected to the proposal to supply inputs free of charge on the grounds that it was not in keeping with the SRDP principle of replication. The university researchers were not always the ones to ensure that the project developed in keeping with the principles of SRDP.

There has been less conscious effort to ensure that the Extension Project retains its connection with ultimate objectives all the time. It has been assumed that progressiveness is closely related to income and that an increase in progressiveness (adoption of more innovations) will lead to an increase in income. The objective of increasing income has tended to be overshadowed by increasing progressiveness. It is important that the connection be established. It is not self-evident that a higher progressiveness score is associated with a higher income. There are many examples that could be quoted where this obviously is not the case, e.g. a farmer who is encouraged to diversify too much, getting a lower income as a result; off-farm income playing an important role; and so on. We strongly recommend that the objective of increasing income be retained in all discussions of the Tetu Project so that alternatives are discussed with income as well as progressiveness in mind. We also recommend that the link between income and progressiveness be investigated, perhaps as part of the final evaluation of the current phase of the experiment (See Section II).

The strategy so far implemented as the Tetu Extension Project has undergone a process of continuous modification not only in the planning but also in the implementation stage. It is of interest to note that some novel features emerged in response to implementation problems solved by

local officials closest to the conditions in the field. The collapsing of a one-week course into a course lasting 3 days; the decision to concentrate on a single enterprise in the course - hybrid maize; the last minute decision to supply inputs on credit rather than free; the decision to encourage farmers to form groups so that follow-up work was manageable; the decision to opt for a simpler selection process (even though the particular one chosen did not work very well); are all examples of innovative changes brought about by the existence of implementation problems. These changes all appear to be in keeping with SRDP principles and none involves a modification of the project out of keeping with its objectives. Other modifications, however, have had negative effects. The selection process substituted for that initially proposed did not work and the selection criteria substituted for the progressiveness score had a different meaning. Both of these attempts to simplify execution of the plan in the field did not succeed in reaching their desired goal so that other methods will have to be tried. The single full treatment has not been accompanied by different combinations of treatments to compare different components; it is hoped that this will occur soon in subsequent treatments. ^{Put}the Tetu experience suggests that continuous modification can make a positive contribution provided that those involved fully understand the principles and objectives of SRDP. This runs counter to the Vihiga experience in which modifications nearly all substantially altered the objectives of the project and violated the SRDP principles, because neither the principles nor the objectives were sufficiently well understood by those involved in the modifications. (For further information on the Vihiga experience, see Appendix F).

The evolution of the strategy in the Tetu Extension Project brings out the possibilities of a successful dialogue between outside personnel (the IDS researchers) and Government officials at the local level. It is interesting to note that the outside researchers involved in this case were not resident in Tetu, and do not appear to have dominated the local officials in the way that those in some other SRDP areas have done. There has been a meaningful dialogue with positive contributions coming from both sides throughout. This appears to have been an important factor in ensuring the awareness of SRDP principles and objectives that is evident among officials in Tetu. It has also been an important factor in ensuring that the researchers' ideas are modified and corrected where local conditions and opinions warrant it.

It appears to us that the critical questions that remain in relation to the strategy that evolved regard replicability, and experimentation. We deal with the experimentation issues in the next section. Here we consider replicability. The question of replicability centers on the free FTC courses, and the ability to work out a successful credit repayment scheme (neither of which may be such important aspects of the strategy anyway), the FTC curriculum development, and the involvement of the JAA's. Particularly important are (a) the curriculum development: could it be repeated in the absence of IDS researchers or other supplementary personnel? and (b) the involvement of the JAA's: could they be sufficiently involved in every course to ensure adequate follow-up? And at what opportunity cost to other projects in Tetu?

There is also the question of emphasis on a single factor: extension. We do not doubt that extension is one of the important and hitherto neglected factors critical to Tetu's development. What does concern us, however, is the possibility that other factors such as technical research, economic research, market opportunities, and so on, might get neglected in the enthusiasm over extension on its own. We urge that extension not be allowed to exclude everything else from the main development effort.

Finally, there are problems associated with the fact that implementation has only just started. The overall strategy is broad, but at present that part of it that has been implemented might be subjected to the criticism that it concentrates on one group of 217 farmers and on one enterprise only. Provided the rest of the overall strategy is implemented: more enterprises are added and, other groups of farmers included, these criticisms will fall away. Only if the project stops at this point will these criticisms stand.

Some successful aspects of the project appear evident at this stage. The experiment has so far shown that attendance at the FTC course ~~compared~~ favourably with normal attendance figures. It is difficult, though, to identify the exact causes(s) of this. In addition, the recruitment of persons from the same sub-location is a great improvement over recruitment at district level because courses can be oriented to specific problems at the sub-locational level and because farmers know each other and can re-inforce each other in new practices, formally or informally, when back in their home area. Other positive

contributions of the experiment have been to advance the ideas of (a) courses geared for specific progressiveness levels, (b) courses for homogeneous groups, (c) courses for farmers not usually reached by FTC, (d) to have follow-up closely associated with the course and (e) to have groups of farmers to economise on extension burden and enforce the value of FTC teaching.

THE EXPERIMENTAL COMPONENT OF THE PROJECT

The strong experimental component of the Tetu Extension Pilot Project singles it out from other SRDP projects. No other SRDP project has been so consciously designed for experimental purposes. In no other SRDP projects has the experimental component been maintained to such an extent in the process of implementation. Indeed it was the hope of the researchers involved, "that the proposed pilot project functions as a proto-type which demonstrates the usefulness of carefully executed "test projects" aimed at increasing the impact of government policy" (4, p.15). It is for the same sort of reasons that we consider the experimental aspects of this project to be of particular interest in our evaluation.

The Tetu extension experiment is far from complete. Only a small part of the proposed experimental treatment has so far been administered. For the treatment that has been administered, starting in June 1972, it is too early to evaluate the results. But some monitoring of the immediate effects has been carried out, and this, together with the experience that has been accumulated in the process of bringing the experiment to this stage, provides us with many useful lessons that can be applied elsewhere. The experiment has already demonstrated much of wider relevance although it is still incomplete.

The experimental process in Tetu involves the following steps:

- (i) the collection of "before treatment" or "baseline" information on variables which might be used as criteria for the success or failure of the experiment;
- (ii) the application of a treatment or set of treatments designed to influence chosen variables;
- (iii) the collection and interpretation of results after the application of the treatment(s) to see how much the treatment(s) have influenced the chosen variables.

As we have shown in describing the evolution of the Tetu strategy (see Section I), the researchers designing the experiment started with the proposal for an "intensive extension effort" contained in the Outline Programme. This, together with the researchers' own bias towards communication science, determined the focus of the experiment. Thus:

"The research was slanted to the primary area of speciality of the researchers; namely, communication science with particular emphasis upon extension methods of diffusing innovative income generating ideas and practices within the small-farm sector". (4, p.15).

It was acknowledged that many other factors also play an important part in influencing the diffusion of innovations, but for the purposes of the Tetu extension experiment it was decided to focus on improving the communications system.

Thus, the variable that was chosen for influence by the treatment, and as a measure of the success or failure of the treatment(s), was adoption of innovations. It was argued (in relation to the classification of farmers on a socio-economic continuum) that adoption of innovations was a reasonable alternative to income which was much more difficult to measure (2, p.8).

The hypothesis for testing was that the provision of an improved system of communication would have a positive influence on the adoption of innovations, and more specifically that the provision of carefully designed FTC courses, follow-up attention by extension staff, and the provision of supplies would influence the adoption of innovations positively. The experiment was originally designed not only to prove the hypothesis true or false, but also to separate out the different elements in the package and to obtain some quantitative estimates of their relative influences (4). Insufficient attention was paid to the link between adoption and income. Implicit in the experiment was the assumption that adoption could be used as an indicator of success because it led to increased income. But this needs testing also. We strongly recommend investigation of this relationship as part of the final evaluation.

THE COLLECTION OF BASELINE INFORMATION

The baseline survey which was used as a basis for designing the Tetu strategy, was also used to collect the "before treatment" information on the key variables. The information collected included the information necessary to obtain an "adoption of innovations index", information which was used to test the validity of the index by seeing how it correlated with other socio-economic variables, and information useful in designing the basic strategy.

The random sample was selected using as a sample frame the Land Registration files, which contain a list of all farms registered in the Division. The files show that there are between 12 and 13 thousand farms registered in Tetu Division. They exclude landless people living in villages in Tetu; there are some cases of registered holdings that have been sub-divided without changing the records in the register; and there are other cases in which one owner has several farms registered separately. It was decided to oversample, initially selecting 380 farms to obtain a sample of at least 350 farms after allowing for normal attrition. The sampling procedure involved selecting every farm on the Land Register, taking a randomly selected farm as a starting point. The sample from which information was gathered contained 354 farms, most of the attrition being attributed by the researchers to the registration of more than one farm per farmer. Where this occurred, the farms were amalgamated into one unit for the purposes of the survey. Interview schedules were administered on the 354 farms by four specially chosen agricultural assistants who had received instruction in interviewing techniques, the administration of the particular questionnaire that was to be used, and the theoretical concepts underlying the questions. The researchers reported:

"The quality of returned interviews was extremely high with hardly any incidence of missing data. We attribute this excellent return to the fact that the four interviewers became ego-involved in the study to the extent where gathering accurate information became more important than getting the jobs done quickly."
(2, pp. 13-14)

THE "ADOPTION OF INNOVATIONS" INDEX

Innovation is defined in diffusion literature as "the extent to which an individual is relatively earlier in adopting new ideas than the other members of his social system" (Fogers, 1962, quoted in 2, p.9).

In the Tetu experiment the term "progressiveness" was substituted for "innovativeness" as more consistent with Kenya usage. The degree of progressiveness was defined in the Tetu experiment by the number of years since first adoption of:

- | | |
|-----------------|-----------------------|
| 1. hybrid maize | 5. certified potatoes |
| 2. coffee | 6. macadamia nuts |
| 3. tea | 7. grade cows |
| 4. pyrethrum | 8. pigs |

The particular innovations included in the index were chosen after extensive consultations with Ministry of Agriculture field staff, (15, p.12). The progressiveness scores of farmers were obtained as follows:

"Each farmer was asked how long he had been engaging in each of these eight practices and his progressiveness score is acquired by summing across all eight innovations." (2, p.15).

Farmers were then ranked according to their progressiveness scores and this list was used to classify them into four categories. The 63 farmers with scores of zero were classified in the lowest category, labelled "laggards". The others were classified into three more groups, (an arbitrary decision: it could have been 2, 4 or some other number), to get two either side of the mean.* Farmers with scores between 1 and 9 were classified as "lower middle progressives". This group contained 102 farmers. The 97 farmers with progressiveness scores between 10 and 19 were placed in the "upper middle progressive" group, and farmers with total scores ranging from 20 to 74, a group of 94 farmers, were classified as "most progressive" (4, Appendix 1).

There are problems with the progressiveness index, most of which are acknowledged by the researchers involved but not subsequently taken care of in the design and use of the index. The researchers mention the fact that it is heavily influenced by the relative weight of the innovations available early (particularly coffee and grade cattle in Tetu); the fact that it does not take into account the size of the enterprises; and the fact that "all new ideas and practices" (? all products) get equal weight (4, Appendix 1). One might well want to discount some of the innovations available early. An old man who started growing coffee 25 years ago would classify as "most progressive" even though he had done nothing since. And although the researchers dismiss such cases saying their index will always result in some mis-classifications, it is felt that there may indeed be quite a strong bias for this reason. Similarly, there are different reasons for attaching different weights to different innovations - some may represent more radical departures from the past, some may represent more single innovations in terms of husbandry, and so on.

* The principle of classification used was to minimise the variance within each group and to maximise the variance between groups. (4, Appendix 1).

The researchers pay some attention to environmental conditions: the fact that in some ecological zones some innovations are inapplicable. This has been investigated further as reported in (10) and in (6, 14 and 15). The further work shows that the index is much stronger if disaggregated by ecological zones. The aggregated index that ignores environmental differences is still being used, but perhaps there will be a chance to control for ecological zones at a later stage.

A factor that is not explicitly mentioned is the influence of the age of the farmer: one would expect the index to be influenced by the date when he started farming. Younger farmers would have smaller chances of getting high scores and vice versa. Although the researchers did not find a high degree of correlation between the index and age, this could still have biased the index quite considerably.

Finally, and as important as any is the economic position of the farmer: his resource availabilities, land, labour, capital, skills, and his objectives. These determine his optimal farming pattern, and are likely to result in some of the innovations being uneconomic and thus inapplicable to him. This is likely to be the most significant **problem** of all. The index results in high scores for farmers producing a wide range of **products** - whereas the more astute farmers may do well to specialise. The index favours farmers whose economic conditions are such that diversification is worth while.

^{claim}
The researchers/s that the index "works" i.e., that it is closely correlated with other socio-economic variables that could also have been used as indicators of the socio-economic continuum: variables such as extension contact, mass media exposure, wealth and education. Their conclusion is valid only to the extent that they have defined correctly the other indicators that could have been used to measure socio-economic levels, and to the extent that the correlations are statistically significant. Information is presented in a tabular form in (2) on the relationship between progressiveness and (a) acreage, (b) fragmentation, (c) water supply, (d) family and hired labour (e) extension contact of various kinds, (f) membership in local organisations, (g) mass media exposure, and (h) "cosmopolitanism" or geographical mobility. However, there is no indication of the statistical significance of the correlations between the progressiveness index and these other variables, nor is there any discussion of what is meant by "the socio-economic continuum" that all of these indicators are supposed to measure. We feel that the particular

progressiveness index used in the Tetu Extension Project, which could have been considerably refined to take account of many of the problems mentioned, may not be identifying the farmers one would really want to call "progressive".

THE TREATMENT

The original intention of the researchers was to subject different groups of farmers to different treatments and to compare the results. For each progressiveness category, 5 different groups of farmers were to undergo 5 different combinations of treatments so that the separate effects of the FTC course, the follow-up and the provision of inputs could be identified. Thus, for each progressiveness category, the following treatments were proposed (4, Appendix 2):

- | | |
|----|--|
| 1: | FTC course + Follow-up + Supplies + Unplanned Inputs |
| 2: | FTC course + Supplies + Unplanned Inputs |
| 3: | Follow-Up + Supplies + Unplanned Inputs |
| 4: | Supplies + Unplanned Inputs |
| 5: | Unplanned Inputs |

This proposed list of treatments was later amended to:

- | | |
|----|------------------------------------|
| 1: | FTC + Follow-up |
| 2: | Inputs on Credit |
| 3: | FTC + Follow-up + Inputs on Credit |
| 4: | None |

The only treatment that is being administered so far is the full combination of all three elements of the package, starting with the FTC courses in June 1972. The intention was to administer this treatment to one progressiveness group, but the implementation process chosen led to farmers being selected from every progressiveness category.

April 1972, it was decided to start the experimental treatment by taking "below average farmers" in Upper Tetu for a short FTC course, follow-up from JAAs, and hybrid maize inputs for $\frac{1}{2}$ acre on credit. The identification of below average farmers posed the first major problem. The original suggestion, which was to obtain scores on the progressiveness index for all farmers that might be eligible, had to be abandoned because there was insufficient time to do this. Instead it was decided to classify farmers according to simpler criteria: no hybrid maize and no grade cattle. (See section 1, p. E-13). The selection process was undertaken by a committee consisting of the subchief of the location, the AA, AHA, JAA and JAHA. The committee used its pooled knowledge to decide which 25 farmers

were eligible according to the selection criteria. The 25 farmers selected were either visited individually and asked if they were willing to attend the course, or called together in a group and asked. Those unwilling were replaced by other farmers selected by the committee as meeting the selection criteria, until 25 per sublocation had agreed to come to the course (15, pp. 39, 56-57).

The farmers participating in the first round of FTC courses totalled 217, in five consecutive courses. Roughly 9 per cent of those originally asked refused to agree to come. A further 8 per cent of those who agreed did not turn up. This resulted in a total of 206 farmers, which was supplemented by 11 last minute replacements, making the final total of 217. All of these 217 are undergoing the full treatment: FTC course plus follow-up (not completed) plus inputs on credit.

Each participant had a farm record card filled out for him. From the information thus gathered it was possible to determine how successful the selection procedure had been in identifying farmers satisfying the two selection criteria and in terms of the progressiveness index. It turned out that the procedure was not satisfactory in either respect: the selection committee either did not know enough about the farmers in their sublocations to make accurate selections (15, p.63), or did not think it sufficiently important to stick to those criteria. Of those selected, 68 per cent had already adopted grade cattle (well above the Divisional average), and 15 per cent had adopted hybrid maize (which was below the Divisional average). The conclusion of the researchers was that a different selection procedure will have to be found (15, p.64).

The selection criteria chosen represented a departure from the original proposals in that they did not consist of total progressiveness scores. Using information from the Farm Record Cards it was found that the progressiveness scores of the farmers participating in the experiment were distributed as follows:

	Farmers Participating	1970 Baseline
	%	%
Most Progr.	48	26
Upper Mid.	33	27
Lower Mid.	14	29
Laggards	5	18
Total	100	100

Thus, in addition to being unsuccessful in obtaining farmers without hybrid maize or grade cattle, the selection process was also unsuccessful in obtaining below average farmers. The participants did emerge as having well below average contact with FTCs, however, so at least a different group of farmers from those normally recruited for FTC courses was reached. (15, p. 65).

Given the difficulties involved in selecting farmers without bias, it may be necessary to go back to a large scale interviewing process, obtaining progressiveness scores for large numbers of farmers and selecting objectively. It is tempting to try to avoid this and select in a simpler fashion and it may be possible to do this more successfully by ensuring compliance with criteria carefully specified, using a local selection process similar to that tried.

The treatment was accepted by the farmers. There was considerable success in persuading farmers to come to the FTC course, despite the problems normally facing FTC recruitment. There were several reasons that could have accounted for the success: the course was short - 3 days; no fees were charged; free transport was provided; and special efforts went into the recruitment process. According to the researchers:

"... we cannot say exactly whether the success was due to the free courses, to the transport, to the method of recruitment or to the interaction of all three. Field Officers, including the PTO (Provincial Training Officer), feel that the success is due especially to the free courses." (15, p. 57).

No attempt has been made to disentangle the separate effects in this case. The researchers were probably right in deciding that it was not worth setting up a specific experiment designed to separate these factors, although it would be useful to know how important were the FTC fees. It might be possible to check on this in a less rigorous fashion, through careful interviews in Tetu.

After the FTC course, follow-up procedures were initiated. There is evidence suggesting that all participants were reached in the planting demonstrations that constituted the first part of the follow-up. The offer of input supplies for $\frac{1}{2}$ acre of hybrid maize on credit was taken up by every participant except one. Thus, the feasibility of the treatment was demonstrated in the sense that it was acceptable to all farmers involved once they had turned up at the FTC. The only significant drop-outs

were those who were not willing to come to the FTC, and this was only about 10 per cent.

THE PAY-OFF: MONITORING AND INTERPRETING THE RESULTS

A full evaluation of the results of the treatment has not yet been undertaken, partly because it is still too early to judge the treatment's results. It will be possible to compare the group of farmers (from mixed progressiveness categories) that has been to the FTC course, had the follow-up, and accepted the inputs on credit with a control group of farmers that has not had any of these treatments. But, it will not be possible to separate out the effects of the different elements of the package, without administering further combinations of treatments. The fact that the treatment has been applied to a mixture of farmers with different progressiveness scores is not a serious departure from the original experimental design as it will still be possible to analyse the result for each group separately during the comparison. The 48 per cent who turned out to be "Most progressives" can be compared with a control group consisting entirely of "Most Progressives" and so on.

Having gone this far, it would be a great pity not to do the final evaluation, and although there has been no clear mention of plans to undertake it, we strongly recommend that it be undertaken starting soon to get the immediate results of this planting season. In the evaluation we recommend that consideration be given to measuring variables other than adoption - particularly to the income question - and that care be taken in not taking the results from too short a time - period. A careful evaluation will be extremely valuable in demonstrating the value of the experiment itself, whatever is discovered about the degree of success of the particular treatment. Having gone this far we strongly recommend that the evaluation be undertaken ^{and} that it be undertaken carefully to obtain the full value from the experiment.

What has been completed is a very quick monitoring of immediate results that took place in August, 1972. One of the University researchers spent one week interviewing 47 of the 217 farmers subjected to treatment. Care was taken to interview only one farmer in each of the farmer groups formed at the FTC. Information was gathered on the farmer himself and from him on the other members of his group, so that a large proportion of the farmers was covered in some degree.

According to the 47 farmers, all farmers subjected to treatment had planted the maize and applied the fertilizers, except for possibly one individual; the dubious case was visited by the university interviewer who established that that farmer had planted also. Some had made slight alterations to the instructions, and in some cases seed did not appear to have been properly treated by the seed company, and this had resulted in heavy losses due to pests.

It appeared to the researcher that the farmers involved in the experiment had had considerable influence on neighbouring farmers. Thus,

"Participants became well-known personalities in their sublocations, as the researchers discovered when they went to visit the participants. Many were asked to teach others." (15, p.67)

The 47 farmers interviewed claimed that an average of 5.7 non-participants had observed the planting demonstration for each of the 47 farmers visited by the researchers. The farmers interviewed also "claimed that a number of other (farmers), ranging between 4 and 27, had bought their own seed and fertiliser and adopted as a result of their influence. The average per farmer interviewed was 2.4 adopters....." (15, p.67). This evidence is also quoted by the researchers as suggesting that the supply of inputs on credit was not a very essential part of the treatment. One does not know how much the farmers interviewed were trying to exaggerate their own importance, nor does one know how much of this would have happened without the experimental treatment anyway. But these sorts of effects will have to be measured in the final evaluation in which we would expect to find some positive evidence of this kind.

This evidence is certainly insufficient to constitute an evaluation, but it is quoted as some indication of the immediate effects and the way in which the treatment is proceeding.

One cannot estimate the pay-off without some idea of costs. The researchers attempted a cost benefit evaluation (8, pp 68-70) but it was based on dubious data and the results must be interpreted accordingly. Further attempts to estimate costs and benefits should be undertaken as part of the final evaluation. We recommend consideration be given to this in deciding the form the final evaluation should take.

CONCLUSIONS

Thus, considerable pains have been taken to inject an experimental component into the project, but much of that component has not yet materialised. Only one treatment - the full package consisting of FTC Training, Follow-up, and Inputs on Credit - has been undertaken. It will be possible to compare the farmers receiving the treatment with a control group of farmers that has not had any of these treatments. But, only through implementing the other treatments, thus separating out the various components, can the most effective and efficient treatment for accelerating the adoption process be identified.

An evaluation of the degree of success of the treatments after they have been administered must be carried out. For the 217 farmers who underwent the first treatment it is important to start the evaluation as soon as possible after the end of this growing season.

There is no doubt that a great deal has been learned up to now from the Tetu experience, which has been very honestly reported by those researchers involved. It is hoped that the experience in Tetu will make it easier to conduct future experiments. With the Extension Pilot Project having set a precedent future experiments should not be so difficult or so costly to carry out. The final proof of the experiment, however, can only come after the final evaluation is complete. It is hoped that the experiment will then be proved to have been worthwhile.

THE SPECIAL 4-K CLUB PROJECT IN TETU SRDP*

The Special 4-K Club Project in Tetu exemplifies the need for co-ordination of different projects within an SRDP area in an overall plan. The 4-K project plan at present overlaps with more direct approaches to the same objective being undertaken through another project in Tetu SRDP. Strangely enough, the original objectives were not similar to the Extension Pilot Project, and it is only through a series of expedient decisions that the present superfluity of the 4-K project has come about.

BACKGROUND

When the national 4-K movement was launched in 1963, Tetu Division registered 23 clubs. Further growth was slow, though, thus mirroring the national situation. In 1969 with 39 clubs registered in Tetu Division as part of the Special 4-K Project, a new recruitment effort was aimed at bringing in 1,000 more members during 1969/70. When implementation of the main project began in 1971/72 there were 58 clubs with about 1,800 registered members. The baseline survey in December 1970 (2) showed that only about 10% of the families included a 4-K member: of these, 54% (19) were from the "Most Progressive" families, 26% (9) from the "Upper Middle", 17% (6) from the "Lower Middle", and 3% (1) from the "Laggards". Mr. Wamugi discovered that some of the members were over age (above 23) and that these were generally more successful, i.e. gained most monetarily from their projects in 4-K.

PROJECT OBJECTIVES

The 4-K Project description (North Tetu Rural Development Project - 1970-1976: 4-K Clubs Programme, 1969) stated the project objective as follows:

- (a) To interest the youth in production of high protein foods, as well as storage, food conservation and preparation of nutritious diets.
- (b) Practically involve the youth in rational production of nutritious food crops for the home use and for marketing.

* This report is based partially on research done by J.K. Wamugi under the direction of Dr. N. Roling.

- (c) Involve youth co-operative groups, hence, make them have experience and the benefit of mutual and co-operative effort and participate in income producing activities, this will help to reduce the problem of unemployed school leavers.
- (d) Involve the youth in family and society development.
- (e) To strengthen the training effort of the personnel available in the Ministry of Agriculture.
- (f) To prepare the youth to be complete and useful members of the society through national and practical leadership training
- (g) To prepare the youth to take the role of leadership in the future and become knowledgeable men and women in their developing society. (p.3)

The attention to youth was also justified later in the paper on the grounds "that youth influence the adult in causing change especially where adults are adamant of throwing away the traditional methods". Thus the indirect influencing of adults to change may be taken as yet another objective. The list of objectives is long and not necessary achievable by a single project. None of the objectives except the last implicit one have been included in the implemented plan. High-protein food gave way to hybrid maize, co-operative plots to individual plots; plans for co-operative marketing were substituted by appeals to the parents to help the children sell their crop; and the objective to involve unemployed school leavers was replaced by inclusion of primary school students. One of the decisions leading to the alteration in crop choice is found in the 1969 project description: they would grow beans and hybrid maize, which does well in rotation with beans and which is more amenable to group marketing because local demand is high. The move to individual plots instead of the usual group plot near the school was probably intended to increase the demonstration effect for parents. And, since 4-K Clubs have always found it difficult to recruit or keep school leavers, it was probably more expedient to focus on primary school students.

THE PROJECT PLAN

The Special 4-K Project was set up to give loans for, and training in, hybrid maize cultivation to 4-K members. The original criteria for selection of participants were age (15-18 years old),

access to land (a $\frac{1}{2}$ - acre plot), "dependability" (active participation in 4-K over the last 3 years), and "willingness and competence" (as judged by extension staff in charge of the local 4-K). These criteria were substantially modified: most Tetu children in that age range were in secondary school (which have "Young Farmers' Clubs" instead) so the majority of participants were 10-14, and members who had remained in 4-K for 3 years were few. The acreage requirement remained, and there was a strong bias towards selection of longer-term members. 15 clubs with 300 members were given training and loans in 1971/72, and 1,000 members are to be trained by 1974. It was assumed that the members would continue to plant their half-acres with hybrid maize (without repetition of the loan) so that one result of the project would be 500 more acres of hybrid maize grown in the Division by 1974.

Training is done in a 4-week course at Wambugu FTC. Faced with time constraints, the 4-K planners considered 2-week courses, but decided they would be insufficient. The loan (from UNICEF) given to each participant is for one season only, and is provided in the form of materials - 5 kg. hybrid maize seed, 50 kg. fertilizer, 2 kg. insecticide, and a jembe and a panga (the latter hardly seem necessary). Repayment is to be in cash and after harvest. In March 1972, 125 out of the first 300 to receive a loan had repaid it. An unknown number of crops had failed, partially accounting for the low repayment rate. In addition, a change in the plan for marketing the maize made repayment less likely. The original plan for group marketing organised by the agricultural staff had been dropped. Instead, parents were supposed either to buy their children's crop or to help them sell it.

The training and loan were supplemented by additional extension attention by JAA's connected with 4-K. Special 4-K staffing has already been extended to each location but the locational officers do not have transport and the JAA's complain that their 4-K and regular duties compete greatly for time.

EVALUATION OF THE PROJECT

The project strategy appears to have needed more careful designing. Examination of the Tetu Baseline Survey data shows that of the 35 family with 4-K members interviewed, 21 (60% of twice the Divisional average) had planted some of their acreage to hybrid maize that year (1970). Of these 21, 18 were spacing the hybrid correctly, all were using chemical fertilizer on it, and 14 were using insecticide. It is apparent that the project resources are being expended on children from families which already use the practices it is intended to teach them. This trend is accentuated by the half-acre land requirement, which children of poorer and less progressive parents cannot meet.

But is this the best way to reach the objective of dissemination of improved farming methods? Considering the total Tetu SRDP programme, we find that a second project - the Tetu Extension Pilot Project - is going on simultaneously, which is providing the same resources more directly to the adult farmers and getting at least as good results. Only 15% of the participants in the Tetu Extension Project had grown hybrid before, and it is probable that future selection procedures will succeed in choosing only those who have never grown hybrid maize. Three days are spent in training at Wambugu FTC for each group of 50 farmers, and they are grouped for easy follow-up by the JAA so extra demands on his time are minimal.

Assuming that some of these factors - selection of participants, training time, etc - could be worked out, the 4-K project should still not be running simultaneously, in the same area, with the Extension Project. Since both aim primarily at the same immediate objective - increased hybrid maize cultivation - it would be extremely difficult to separate out the effects of one project from those of the other, if both function successfully. The two projects should be tested in sites far enough removed from each other so that the expected diffusion effect would not be exerted on the same neighbours.

The experience gained in 4K Club may be a positive influence on youths in regard to their attitude towards farming. The particular husbandry practice being learned, as in the case of most any practice, will probably be widespread by the time these youths are old enough to have their own farm. It is the experience and attitude acquired which are important for the school children. But, school children from Tetu Division, especially if from progressive families, are likely to stay in school until 18-20 years of age; thus 6 to 10 years will pass between this demonstration of methods and benefits of farming and a choice for or against an agricultural career. The degree of success in imparting a pro-agricultural and pro-modern attitude to the participants will only be clearly evident, and thus ready for evaluation, in 6 to 10 years.

RECOMMENDATIONS

Extension Project Strategy

1. Give the degree of continuous modification that occurs during the process of implementation as well as planning, we recommend that continued efforts be made to ensure that those involved are fully aware of the significance of SRDP principles and objectives, so that these are adhered to through-out the process of strategy development.
2. We recommend that further topics for FTC courses be selected with care. In the selection of enterprises particular attention should be paid to the relative profitabilities of the different alternatives for the group of farmers concerned. Serious consideration should also be given to the question of whether to offer single enterprise or multiple enterprise courses, the latter probably being more suitable for the more progressive farmers.
3. We recommend that the selection criteria used to obtain homogeneous groups of farmers for FTC courses be refined. It may be necessary to use total progressiveness scores in the end, but efforts should be made to find indicators that act as efficient substitutes for these.
4. We recommend modifications in the selection procedure for obtaining homogeneous farmer groups. Farmers satisfying the selection criteria need to be identified, and then a number from among those satisfying the criteria needs to be chosen. The procedure used in Tetu proved inadequate to obtain farmers satisfying the selection criteria, and no provision was made to select systematically from those who satisfied the criteria.
5. We recommend that more consideration be given to the question of ensuring effective follow-up on the part of the JAA's in future courses. Once the JAA's stop attending the FTC courses with their clients, and as the follow-up process becomes a matter of normal routine, it may not be sufficient to leave it to take its own course. There may be a need for some further action to ensure that follow-up is taken seriously.

The Experiment

6. We strongly recommend that the final evaluation of the experimental treatment so far applied be carried out. This is necessary to decide whether or not the experimentation has been worth while.

The success of the experiment needs to be distinguished from the success of the experimental treatment. If the results of the experiment simply confirm the general expectation that the strategy has a positive impact on the rate of adoption of hybrid maize, then the experiment itself will not have contributed very much. If, on the other hand, the results are unexpected, the experiment will have made a positive contribution. If the results show that the whole treatment has had very little impact, the experiment will have been valuable in showing that a strategy that was thought to have a strong likelihood of success did not work after all, should be dropped, and something different tried. The experiment will have had a very positive value, although the treatment has not. If the results show that the treatment has had an impact very different from the one expected, or that components of the treatment which were thought to be marginal turned out to be crucial, this will also be valuable. The experiment will have made a positive contribution. The success or failure of the experiment, as opposed to the success or failure of the treatment, depends on the extent to which it produces unexpected results.

7. In the evaluation of the results of the treatment, we recommend that the following points be covered:
 - a) The group that received the FTC training, follow-up and inputs of credit should be compared with a control group from outside the diffusion area to avoid the possibility of the control group farmers being influenced by the treatment through the diffusion process.
 - b) In the evaluation, the results from farmers from different progressiveness levels should be analysed separately. The treatment was designed specifically for below average farmers. If it had relatively little impact on above average farmers this is hardly a failing as far as the treatment is concerned. Indeed it would be of some concern if the treatment designed for below average farmers proved to be most successful for the very progressive.
 - c) The evaluation should start soon to get the results of the current season, but it should also cover longer-term effects. Some farmers might discontinue hybrid maize and revert to their previous practices once the immediate impact of the treatment has worn off. It would be important to include this in the evaluation.
 - d) The evaluation should include a careful assessment of the diffusion effects of the treatment, and not confine itself to the direct effect on farmers participating.

- e) Part of the evaluation should include an investigation of the relationship between "progressiveness" and income. The success or failure of the experimental treatment should be judged in terms of income as well as progressiveness. It is also important to determine whether progressiveness is a suitable variable to operate on if income increases are the ultimate objective.
 - f) The evaluation should cover the rate of loan repayment, and an overall assessment of the success of the credit scheme.
 - g) The evaluation should include an estimate of costs, and a comparison of costs with benefits.
8. Pending the results of the final evaluation of the first treatment, we recommend that other combinations of treatments be administered so that the separate effects of the different components can be estimated. It is of considerable interest to know whether the FTC course plus follow-up is sufficient, or whether the inputs on credit make all the difference, for example. When the evaluation has been completed, it will be possible to decide how worthwhile the experimentation is, and whether it should be continued or expanded to include other progressiveness categories (for whom other FTC courses and follow-up will have to be designed) and more treatments for the progressiveness category already treated in the first phase of the experiment.

The 4K Club Project

9. It is felt that 4K could fill a vital need of rural Kenyan youth, and experimentation within its structure is a valid SRDP concern. However, the present hybrid maize emphasis for the 4K project and the strategy being used does not appear to be the most viable. Thus it is recommended that a return be made to the original objectives (especially the less vague (a) through (c)) and strategies be devised based on the characteristics of the 4K constituency (young, of progressive families, and those with little present access to land, etc.), and that these strategies be subjected to close scrutiny and testing in an SRDP area.

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THE VIHIGA MAIZE CREDIT PACKAGE

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- I. Outline**
- II. The Vihiga Resource Endowment**
- III. The Development of the Vihiga Maize Credit Package**
- IV. Evaluation of the Agricultural Production Programme**
- V. Evaluation of the Institutional Arrangements for Marketing and Credit.**
- VI. Recommendations**
- References.**

OUTLINE.

The purpose of this brief introduction is to outline the structure of this evaluation of the Vihiga Maize Package, and summarise its principal findings and recommendations.

The initial review of the resource endowment of Vihiga (Section II) shows that in spite of efforts to collect useful information, misinterpretations regarding the relative abundance of labour, and the uniformity of conditions in Vihiga were permitted to materially influence the design of the project. This error may be attributed in part to inadequacies of the baseline survey, and also to material contained in earlier studies having been overlooked. The Section concludes that attention should be paid to experimenting with strategies which will increase returns to labour as well as to land, and that the diversity of farm types in Vihiga should be given explicit recognition through the inclusion of a variety of strategies in the Vihiga Programme.

Section III outlines the way in which the Maize Package emerged in its present form out of the early formulations of the Vihiga Programme. In particular it examines the influential role of the donor, US AID, in creating an implementable project involving the provision of tied credit to smallholders, backed up by intensive extension supervision, and directed at the objective of self-sufficiency in maize production. It shows that during this process the actual target of the project as implemented (giving assistance to a select group of producers) became divorced from its original objective (giving assistance to all types of producer).

Section IV and V form the core of the report, the former containing an evaluation of the content and direction of the production programme, the latter containing an examination of the attitudes towards the marketing infrastructure and the proposed changes in marketing. Section IV commences with an examination of the objectives of the project, concluding that:

- (1) the target of self-sufficiency in maize production had not emerged from serious consideration of its possible economic benefit to the area;
- (2) the detailed work necessary to show how self-sufficiency could be attained economically was not carried out, even although the design of the project depended on this.

- (3) the relationship between increased hybrid maize production and the desired increase in incomes (an early formulation of the objective of the project) was not specified, nor was improvement in incomes made a criterion for evaluation of the scheme.

The appropriateness of encouraging a single crop for Vihiga is also questioned as well as the narrow concentration on tied credit as the appropriate strategy, in view of the nature of the resource endowment and the difficulties of reaching those who were supposed to be the target of the project. It is also pointed out that the success of the project in terms of increased maize production is questionable, and that the project/^{presently} does not constitute a model capable of replication at the national level.

The argument of Section V has two principal strands: firstly, the mechanism of implementation of the credit scheme as it presently stands disregards the commercial principles of entrepreneurs involved in supplying inputs, who are obliged to participate in the scheme; secondly, the further intention of replacing existing intermediaries with a system of co-operatives which would also administer the provision of credit betrays a disregard for the present and potential contribution of these and other intermediaries in the inputs and maize markets in Vihiga.

Section VI concludes the report. It contains the principal recommendations emanating from the earlier sections. The most important of these is that before the project is extended to more producers it should be radically modified in order to ensure that it becomes consistent with the principles and objectives of SRDP. Diversification of the programme is advocated, together with more careful specification of the objectives of particular projects. Recommendations in favour of taking a longer view of the development of projects, introducing a continuous evaluation procedure (to guard against modifications creeping into the project and defeating its purpose, amongst others), and ensuring that, where appropriate, liaison is maintained with technical specialists, complete the list.

It should be pointed out that this evaluation exercise has not covered fully the agricultural extension service provided to the recipients of credit in Vihiga. It was felt that its inclusion would necessitate a very different approach than the present one which rests on already available documentary evidence.

THE VIHIGA RESOURCE ENDOWMENT

The resource endowment of Vihiga has been chosen as the starting-point in order to show the kind of information which was available for planning purposes, and to show that this information supports two conflicting interpretations of its significance for project design.

Vihiga is typical of Kenya's rural areas in having limited and fragmentary information on the resource endowment. Indeed, it has several advantages over some of the other SRDP areas in this respect, in that a base-line-survey-the 600-farmer survey (1) - exists. This is undoubtedly a valuable source of information, although it opts for a wide coverage of many aspects of the agricultural and social environment, rather than a more penetrating analysis of a narrow range of topics. Many of the economic data are missing, and others can only be inferred. Numerous other sources, such as the Outline Programme (2), contain impressionistic summaries of the Vihiga resource endowment. Inconsistencies emerge when the various sources are compared. Some of the detailed information that was available in earlier planning documents appears to have been overlooked at the later planning stages. A single comprehensive summary would have been very useful at the outset, in advance of SRDP planning.

Resource Endowment:

The resource endowment has a number of dimensions: the human population, the climate/land complex, the capital stock, location, and the institutional economic structure within which these factors interact.

Population - The most frequently emphasised population characteristics of the Division are the high population density and the distorted sex and age composition of the population resulting from the high rate of adult male out-migration from the Division. The population density is estimated at 2.18 persons per acre (5.38 per hectare) (3, Table 1, p.67); a slightly higher figure may be inferred from the survey data on family size (1, Table 5 and 6). Estimates of the incidence of adult male outmigration vary; it has been estimated that 65 per cent of all adult males are absent (2, p.1, no source quoted).

However, if it is assumed that Vihiga would otherwise have the same sex composition and adult/child balance as the Republic as a whole, and if female children in Vihiga are used as the base of the calculation as they are

the least likely to be involved in any outmigration, the figure comes closer to 30 per cent. The survey data show that 36 per cent of the farm heads (persons with farm decision-making powers) were absent during the survey (1, Table 1), which supports the lower figure.

The Climate/Land Complex - The Division is described as being of "reasonably high potential" (2,p.1. This assertion is not substantiated). Apparently no rigorous evaluation of the agricultural potential of the Division has been made. The rainfall of 65 inches (1651 m.m.) per year (2,p.1) is said to be well distributed throughout the year, but averages over the last 5 years show a range of 61 to 84 inches (1549 to 2034 m.m.) per year according to location within the division (2, p.61). Variability (12 per cent over the last five years) and reliability are rarely mentioned, although these are generally important factors in the agricultural environment. The farms have been described as hilly and rocky (5, p.1). The survey results show that an average of less than 3 per cent (a negligible amount) is "too rocky, too steep, too wet, too acid" (1, Table 17). It may be presumed that while only a small proportion comes into this extreme category, variations in the physical condition of the greater part influence productivity. Soils vary considerably, as the following quotations suggest:

"Volcanic soils are potentially rich but exhausted owing to heavy use without fertiliser....." (25, p.2)

"The natural potential..... varies considerably in soil fertility. There is a great difference between volcanically-derived soils.....and the older granite-derived soils.....Unfortunately some of the highest population densities border on the less fertile soils; since they are also the oldest settled areas, the soil fertility has been depleted....." (26, pp. 1, 2).

Farms in Vihiga are small: 39 per cent are less than two acres (0.81 hectare); 83 per cent less than 5 acres (2.02 hectares); and only 5 per cent are over 9 acres (3.63 hectares)*. A high proportion of the smaller farms is probably on the poorer soils since the process of fragmentation is likely to have gone further in the older settled areas referred to above. The size distribution of farms has considerable significance as will be clear from the discussion below.

+ In the Republic as a whole, female children constitute 24.8 per cent of the population, and adult males 24.4 per cent. If it is assumed that the actual number of female children in Vihiga (82760) would amount to the same percentage if no out-migration had taken place, then the inferred number of adult males would be 81425. The actual number of adult males in Vihiga is 57460 or 70.6 per cent of the inferred number, implying a 29.4 per cent "shortage" due to outmigration.

* The 600-farmer survey was conducted in acres, not hectares.

The Capital Stock - Vihiga is not outstanding relative to the other high potential areas with respect to capital investment in the farms. There is substantial investment in housing, but relatively little in permanent crops, cattle, land improvements, etc., except on the few relatively large farms. There are apparently substantial cash flows into Vihiga - remittances from employees working outside Vihiga have been estimated at Shs: 40.00 to Shs.100.00, per farm per month (30, p.5). Apart from financing consumption, education appears to be the principal form of investment carried out with these funds. The extent to which funds could be available for investment in agriculture may depend on farmers becoming sufficiently convinced that it would be worthwhile to divert resources from investment in urban-oriented education. Otherwise a higher level of savings would be necessary if more investment was to take place in agriculture.

Location - Vihiga is located within easy reach of Kisumu and Eldoret. A first class tarmac road from Kisumu to Eldoret passes through the centre of the Division, and this makes transport to the nearby towns relatively cheap. But Vihiga is far from export markets and the larger urban markets of Nairobi and Mombasa. The Uganda market is of some importance to Vihiga, much of it illegally.

The Institutional Economic Structure- This is the least well documented aspect of the Vihiga resource endowment, and yet it is probably of **greatest** potential value for the understanding of the economic conduct and performance of the area, and therefore for improving on the diagnosis and prescription of appropriate development projects.

The Significance of the Resource Endowment:

The conventional interpretation of a high population density in the context of a small farm system is a relative scarcity of land, and a relative abundance of labour. A very high degree of land utilisation is expected. It is usually argued that the type of agriculture that should emerge is one which uses the land intensively, with the emphasis on labour-intensive methods. When the physical conditions and location are also favourable, high value per acre products are to be expected. Generally the emphasis is away from food, although some food crops can give very high per acre returns.

A superficial assessment of the Vihiga resource endowment would support the conventional view, but on closer examination the situation is less clear cut. Much depends on the identification of a high population density

with a high labour availability per acre, but one does not inevitably follow from the other. The dependency ratio is also high, with the large proportion of adult males absent from the Division and a large proportion of children in school. According to the 600 - farmer survey, the average farm has a labour input equivalent to between 2.8 and 3.4 "full time" workers, of which between 15 and 23 per cent is hired (1, Tables 69 and 70), despite an average farm family size of 7. The typical picture is for full time labour to be provided by the farm heads and their wives, or by the wives alone (1, Tables 1 - 4). The incidence of part time and seasonal involvement of family workers is apparently large, but inadequate, and a significant proportion of labour is hired. Even among those described as full time there appears to be a considerable involvement in non-farm cash activities (8, p.5). It appears that there would only be a relative abundance of labour, or a relative shortage of land, if it were not possible for outmigration to occur, and for part-time non-farm occupations to be found. It may well be that the majority of Vihiga farms are being farmed in conditions of effective labour shortage, rather than abundance. In other words, at existing prices and returns agriculture is at a comparative disadvantage with respect to alternative forms of employment.

The current pattern of land use should be examined in the light of this interpretation. Almost 50 per cent of the average farm is devoted to maize (1, Table 34), 9 per cent is unused (1, Table 16) although this may be used for livestock; and 3 per cent is unusable (see above). Several commentators have remarked on the fact that in spite of the heavy population densities and the small sizes of the farms, there appear to be considerable areas of unused land, much of it in the lower valley bottoms. Mook, on the other hand, feels that after allowing for the space requirements of the homestead and roads there is little left (10, p.6). There is no complete land use information on Vihiga, but the 600-farmer survey (which specifically lists only maize and cash crops) shows small amounts of coffee, tea, groundnuts, certified potatoes, and improved beans on a small proportion of the farms (1, Tables 39 - 62). Bananas, cassava, sweet potatoes, beans, sorghum and millets are apparently also grown in sizeable quantities for domestic consumption (27, p.2).

Maize yields are low, averaging less than 6 bags per acre (1334 Kg. per hectare) according to the survey (1, Table 34). This may be an underestimate, but the true figure is unlikely to be much higher. Two crops are possible, but even so there may be a maize deficit in the Division. The average requirements of a family of eight are held to be 15 bags (1350 kg.) per year (6, p.3) and if one assumes that lower yielding local maize is used more frequently for the short rains crop (1, Tables 32 - 40), the deficit might be about 15 per cent. However,

there is a problem with this definition of the maize deficit. The average requirements of maize for a family depend on the extent to which maize is supplemented by other foods in the diet. Fifteen bags per family per year may be required if the family relies almost entirely on maize for its starch, but if millets, sorghum, sweet potatoes, cassava, and bananas are also eaten the "requirement" of maize is likely to be much lower. The extent to which other foods such as pulses, vegetable, meat, fish, poultry and dairy products are consumed also influences the "requirement" of maize. People may prefer to rely less on maize than the 15 bags per family suggests. It may be economically attractive for them to rely less on maize; it may also be nutritionally desirable for them to rely less on maize. The whole notion of maize requirements in Vihiga needs rather careful definition.

There is a cyclical pattern to maize prices which range from Shs: 30.00 to Shs. 70.00 per bag (Shs: 33.30 to Shs.77.81 per 100 Kg.). The fluctuations are accounted for by the need to obtain cash for school fees at harvest time (low prices), the need to buy maize at other times of the year in excess of local production (high prices), and the shortage of storage (6, p.3). It would be valuable to know more about the cyclical pattern of sales and purchases. Whatever the precise position, however, the fact that local maize, which would not be regarded as a high value per acre crop within agriculture generally, is predominant may be explained by the attitudes towards alternative non-farm pursuits, and by the local resource availability (in particular labour) for agriculture.

In view of the needs of the farm residents, the small size of farms, and the opportunities for non-farm employment (despite the difficulty of obtaining it), it could be that low intensity maize production is the most rational way of farming consistent with maintaining an ancestral home, using local educational facilities, and not exerting oneself for too low a return. Possibly in this sense many Vihiga farms are being farmed optimally at present. There appears to be a clear propensity among the majority to regard farm employment as a last resort in the absence of other opportunities. The pressure to obtain education and the nature of the education system reflect the view that education is the avenue into non-farm employment. A high proportion of the remittances that come into the Division is used to perpetuate the cycle of obtaining education to facilitate outmigration. In essence, Vihiga can be viewed as a child-bearing, rearing and educating base, financed by transfers from urban areas as much as from income generated within the Division. That its value is high in this function is evidenced by the high land prices (8, p.6) which do not appear to be related to any possible present value calculation based on existing or even future productivity. Even the

farmers apparently do not view themselves primarily as farmers, but more in the nature of allotment holders, for whom the agricultural income supplements what they can obtain from elsewhere (10, p.2).

While much of this is true of the majority, important groups in the Vihiga farming population are in a quite different position. The diversity of the agricultural structure of Vihiga needs to be considered as well. Vihiga farms do differ substantially from one another as do farms in other areas. The most important sources of differences in this context are farm size, soil and climate, availability of entrepreneurial resources, and inflows of financial resources from elsewhere, all of which materially affect the income distribution pattern. The situation is complex; it is by no means clear, for example, that the small farms belong to poor families. Evidence of the Vihiga agricultural structure is inadequate; the 600-farmer survey is the only substantial source of information here and it is incomplete in this respect. In the survey "progressive" farmers are defined according to the earliness of adoption of six selected crops: hybrid maize, coffee, groundnuts, certified potatoes, tea and improved (Mexico 142 and Rosecoco) beans. Of the "progressive" farmers, 79 per cent had adopted hybrid maize (although only 65 per cent were growing it in 1970), 64 per cent coffee, 41 per cent groundnuts, 28 per cent certified potatoes, 17 per cent tea and 16 per cent improved beans. "Progressiveness" thus defined is only a weak proxy for entrepreneurial ability because earliness of adoption is influenced not only by entrepreneurial ability but also by the age of the farmer, the resource situation of the farmer - his labour, land and capital, the local physical environmental conditions, and so on. The core assumption that production of these "progressive" crops is economically worthwhile may not always be valid. However, the early adopters do appear to have some distinguishing characteristics in Vihiga - they tend to have larger farms, composed of a larger number of fragments than average, which implies a connection between "progressiveness" and expansion through purchase (1, Tables 9, 12 and 13). They tend to have larger resident families, and also employ considerably more paid labour than average. It appears that for such "progressive" farmers it is worth investing in more land and employing paid labour because they are getting sufficiently high labour and land returns. These farmers probably suffer from a shortage of capital as much as anything else.

Although there is a distinct association between "progressiveness" and the above factors, the correlation is not complete: there is a significant minority of "progressive" farmers with very small farms, small labour forces, and so on. It is possible that some of these are farmers who have not yet expanded their size of operation, or that these are farmers with substantial off-farm occupations in which they also do well. The picture above does not cover all "progressive" farmers by any means.

There are all the different groups of "non-progressive" farmers to consider as well: those with small farms, those with large farms, those with ample labour, those without, and so on.

It would be valuable to have more information on the agricultural structure in Vihiga. All we can do at present is to recognise its diversity, and to recognise that the diversity encompasses several distinct variables. The importance of diversity in this context is:

- (i) that it raises the question of specialisation; and
- (ii) that it raises questions of income distribution.

Because of the diversity of the agricultural situation one would expect the emergence of specialisation according to comparative advantage. Some farmers might specialise in growing the maize that Vihiga needs, others perhaps in legumes, bananas, or horticulture, or in combinations such as tea and dairying. Complete specialisation may not be economically worthwhile, but some specialisation should be encouraged. This involves the design of programmes to suit different groups of farmers. Secondly, diversity is not solely a question of farm size, but also of farm resources other than land. This needs to be borne in mind in considering income distribution, which is often assumed to be closely related to farm size. This is quite clearly not the case in Vihiga where the situation is particularly complicated by remittances and other non-farm income.

To summarise:

1. Information on the Vihiga resource endowment needs to be brought together and interpreted carefully. There are inconsistencies, both factual and interpretative, which need to be reconciled; there are important contributions in earlier documents that appear to have been ignored in later planning.
2. The general interpretation that Vihiga is a traditional land-shortage case needs to be re-examined. The above analysis of such material as is available suggests that there is an alternative interpretation. It is hoped that this analysis, stressing
 - (a) the possibility that there is an effective shortage of labour and a comparative disadvantage of existing employment opportunities in agriculture on many farms, and
 - (b) the diversity of the agricultural structure, can be brought to bear in future Vihiga planning.

THE DEVELOPMENT OF THE MAIZE CREDIT PACKAGE.THE CONTENT OF THE VIHIGA SPECIAL
RURAL DEVELOPMENT PROGRAMME.

First mentioned as a possible pilot area in March, 1968, on account of its heavy population density and "high to medium agricultural potential" (28, p.1), Vihiga was selected as a first phase area in March, 1969. The initial plans for the Vihiga programme were prepared towards the end of 1969, and are summarised in the Outline Programme of January, 1970. This contains proposals for the development of production of maize, fruit and vegetables, dairy produce, pigs, poultry, coffee and tea, together with improvements in the supporting services. Emphasis was to be placed on maize, fruit and vegetables, and dairy production. The objective for maize was to be the attainment of self-sufficiency in that crop, on a reduced acreage, releasing land for other uses. As part of the agricultural programme a "carefully monitored experiment in crop extension techniques, emphasising an attempt to reach all different types of farmers: adult men working outside the area, women at home in charge of the farms, male farmers on the land, school leavers, and others" was also proposed (25, p.6). The provision of credit was given a role, in the encouragement of pig, poultry, and dairy production. Credit was to be supplied through I.D.A. (loans against land titles), and the Lindquist Co-operative Credit Scheme (loans to financially secure co-operatives).

This production programme has been criticised for containing little that was new: it closely resembled the existing programme of the Ministry of Agriculture in Vihiga. It has also been criticised for being too broadly based, giving little indication of priorities, and paying little attention to the relative profitabilities of the selected products. Although some quantification was attempted, even very rough cost-benefit calculations were precluded due to data inadequacies, and little justification was offered for preferring the particular ingredients chosen for the programme to others. Much of this is understandable given the resources that were devoted to the initial planning process, and the amount of time available.* It was argued at the time it was important to get some plan written as a basis for starting the programme and that there would be considerable modification as the programme gained momentum.

* Similar comments have been made in other areas. See, for example, Kapenguria Report, pages A3 and 4.

EMERGENCE OF THE MAIZE CREDIT PACKAGE.

The Vihiga programme started officially on 1st July, 1970, but little happened for several months. US AID had expressed an interest in supporting the programme and a US AID adviser, Harmon, arrived in June 1970 under contract to survey the programme with Kenya Government officials and to assess the contribution that could be made by US AID. Harmon reported early in September 1970, and his report formed the basis of the US AID proposal for a Vihiga Programme that went to Washington at the end of September 1970.

Harmon felt that maize should be given priority initially, writing..... "considering the maize shortage in the Division, the most urgent and practical primary objective of the agricultural programme should be an all-out effort to increase maize production." (17, p.31). But he stressed the need for realistic farm profitability estimates for maize as well as other products, and he gave limited support to programmes to develop dairying, improved coffee husbandry, and high quality vegetables, pending farm profitability estimates and noting the market constraints involved. He felt that meeting feed requirements would be a problem for livestock enterprises such as poultry and pigs.

Harmon emphasised the importance of the agricultural extension service, regarding it as the critical element in the success of any agricultural production programme for Vihiga. He recommended extensive on-the-job training for JAAs; improvements in their supervision; adaptation of recommendations to suit local conditions; much more upward mobility within the extension experiment in the Outline Programme; and improved methods of contacting all types of farmers. He recommended that the Vihiga agricultural programme be directed to "progressive and unprogressive farmers whose land holdings range from largest to smallest. The only requirement should be that the farmer desire to cooperate."

Harmon also recommended a pilot programme of closely supervised production credit. He emphasised that this was "especially needed by small farmers who require money to hire labour and to buy insecticide, fertiliser and hybrid seed." But there was a contradiction in his statements on credit. He noted that there was more cash available than might appear, and that much of the cash coming back from migrant labourers employed outside Vihiga was not being invested in agricultural activities. He concluded his credit proposal with the remark: "If people themselves do not have enough faith to put money into farming the Government should not do it either."

Following Harmon's report, maize was selected as the focus for the first year's programme, in the US AID Project Proposal. This US AID Project Proposal also marked an important stage in the development of the structure of the maize credit project, though the idea of Harmon that credit could be offered for the payment of hired labour was dropped. Mook wrote at the end of October 1970, "The maize campaign during the first year planting season (February - June 1971) of the proposed 5-year programme gives some time for the US AID-supported economist to study the profitability of various farm enterprises under differing conditions". Maize was being considered as only the first step in a multi-product programme for Vihiga, and it was expected that other products would be added fairly quickly. In the event, maize was still the only product in the second year of the programme, and in the third year, 1972/1973 only a small tea programme and fruit and vegetables are to be added.

THE EXPERIMENTAL ASPECTS OF THE PROGRAMME.

Plans for the extension experiment described in the Outline Programme were underway meanwhile. In July 1970 US AID proposed to select 100 progressive farmers per location (through sub-chiefs) and 50 poorer farmers per location (at random) for the experiment. At a meeting of US AID officials and Government officials from Vihiga, Kakamega and Nairobi on 24th August 1970, it was decided to select 100 farmers per location, 60 "large progressive" and 40 "small progressive", giving a total of 600 from the 6 locations. But there was a conflicting recommendation that "there must be a complete cross-section of farmers" including "new faces and a number of women". Responsibility for selection was given to the D.O. Vihiga who was asked to complete the selection by 15th September 1970. Having written to chiefs asking them to begin thinking of names prior to a meeting with him, he found on visiting them that they had already gone a long way in making their own selections, and had actually informed some farmers that they had been selected. A meeting in the D.O.'s office followed on 5th September 1970 at which the two Vihiga D.O's, the Area Coordinator, representatives of the Ministry of Agriculture including the newly appointed FDA, and Mook and Ascroft from IDS, were present. It was agreed that the earlier decision should be reversed and that random selection should be adopted because it was the fairest and most impersonal method available. The random selection was handed over to Mook and Ascroft who completed it by mid-October. The next step was to administer a farm level survey as a data base and as training for AA's. By the end of October the AA's had been trained to administer the questionnaire, it had been tested and tried, and the farm survey started. It was completed in January 1971. The first results were available in June 1971.

The random selection of the 600 farmers should have made possible experimentation with different treatments given to different groups of farmers and comparison of the results. The objective of the experiment was to compare ways of increasing hybrid maize production. The treatments envisaged were intensified extension advice, farm planning, fertiliser demonstrations, and credit. All 600 farmers were to be given extra extension advice. All farms of 3 acres and above, about half of the 600, were to get farm plans. Fertiliser demonstrations were to be given on 100 of the 600 farms, the 100 being selected at random. Some of the 600 farmers were to get short-term credit.

In the event, little attention was paid to the design of the experiment. Indeed, few saw the programme as experimental at all. The different treatments were applied in ways such that no conclusions could be drawn from monitoring of the results, had any arrangements been made to monitor them.

The 600 farmers originally selected for the extension experiment were all given special attention in the form of extra extension advice. Those with farms of 3 acres and over had farm plans drawn up over the year October 1970 - October 1971. Each involved determining field average size, drawing up a rotation scheme, and discussing management aspects with the farmer (6, p.2). No attempt was made to link farm planning with credit. Johnson, an adviser from US AID reporting in August 1971, felt that the most valuable aspects of the farm planning exercise for the farmer were information provided on field size, crop rotation, fertiliser use, hybrid maize seed and weed control. Some farmers commented that "while the plan was satisfactory it takes money to implement it - particularly the fertiliser, seed and insect control recommendations" (6, p.2). Rice, another US AID consultant who reported towards the end of 1971, felt that the exercise was a complete waste for those who did not receive credit to follow it through.

Fertiliser demonstrations were planned for 100 farms, which were supposed to be selected randomly from the 600. Unauthorised eliminations by field extension staff reduced the number to 85, and unauthorised substitutions resulted in a group that was not entirely a random selection, although the distortion was relatively minor in the end. The farms on which demonstrations took place had a one eighth of an acre plot with fertiliser treatment and a one eighth of an acre control plot. Fertiliser, seed and insecticides were provided free for those plots.

The credit package as originally formulated involved the provision of supplies of hybrid maize seed, fertiliser, and insecticide on credit to some of the farmers participating in the crop extension experiment, against the security of the maize crop. The package comprised 1 packet of hybrid maize seed, 50 kg. of double superphosphate or 100 kg. of single superphosphate, 100 kg. of ammonium sulphate, and an appropriate quantity of DDT - the amounts recommended for 1 acre of maize. The total value was intended to be Shs:105.00 per acre. The farmers receiving loans were to be visited a number of times by agricultural extension staff, who were to give detailed recommendations on soil preparation, planting date, spacing, fertiliser application rates and methods of application, and the use of DDT.

Although the original intention behind the credit package was experimental, the criteria that were finally developed for selecting farmers to receive credit emphasised credit-worthiness more than anything else. Thus the treatment became: short-term credit for creditworthy farmers wanting to participate in the credit "experiment". The selection criteria were:

- (a) growing a minimum of 2 acres of maize,
- (b) farmer considered to be creditworthy - even although the growing crop was to have provided the necessary security,
- (c) farmer accepts the loan conditions, i.e. that he will accept advice on growing the crop and that he will repay,
- (d) farmer turns up to sign the documents on the appropriate day.

Of the 600 farmers in the sample only 54 satisfied those criteria. A further 22 were selected for the same treatment from outside the sample, on meeting the above conditions. The procedure for providing the loans was for the selected farmer to be provided with a document, an Authority to Incur Expenditure, which could be exchanged for stated quantities of inputs by stockists who had been forewarned of the scheme. These documents were then submitted to A.F.C. to effect payment to the stockist.

In 1972 basically the same programme was undertaken on an expanded scale. It was generally felt that the programme had been successful for those involved, and spectacular increases in yields were quoted as evidence of success (7). Attention was now focussed on the question of how to extend the programme to larger numbers in a short space of time.

The 1972 programme was to involve around 300 farmers, as this was the number the extension officials felt they could handle. In the event 370 farmers were selected. Criteria for selection were similar to those adopted for 1971 but spelled out in more detail:

- (a) minimum of 2 acres of maize;
- (b) maximum of 4 acres of maize;
- (c) good character;
- (d) creditworthiness;
- (e) readiness to follow recommended practices;
- (f) capability of cultivating maize acreage;
- (g) repayment of 1971 loan, where applicable;

The major additions to the 1971 criteria were (b), (f) and (g). The loan package was the same, though prices and fertiliser analyses were now stipulated. Group extension activities were to be introduced and tested to enable more rapid expansion of the programme in later years.

By 1972 it is clear that the programme had lost most of its experimental content. (See Part I of the Report for a discussion of the principle of experimentation). There was no hypothesis to be tested; there were no alternative treatments with which to compare credit; there were no alternative credit schemes to compare; there were no control groups; there was no systematic collection of data that might have provided the basis for an objective evaluation. The programme had become a straightforward development programme for Vihiga. However, this is not the way it is seen in Nairobi, currently. It is still hailed as "an experiment of national importance" extending far beyond the boundaries of Vihiga. It is said that the Vihiga maize credit programme has demonstrated for the first time a successful way of handling credit for small-scale maize producers in Kenya, and as such it is an experiment of potential significance for all small-scale maize producers in Kenya. More will be said about its 'success' later; in the discussion here it is simply its experimental component which is questioned. As far as can be seen it has not demonstrated anything, nor, because of the way it has been set up, is it capable of demonstrating very much.

THE CURRENT STATE OF THE VIHIGA SPECIAL
RURAL DEVELOPMENT PROGRAMME.

In mid-1972, the situation appears to be as follows:

An expanded maize credit scheme is proposed for 1973, involving about 1,000 farmers but because the appropriate institutional framework is inadequately developed there is still some uncertainty about whether it will materialise. It is anticipated that the programme will be expanded to 3,000 - 6,000 in the following year or two. Questions that are preoccupying those involved concern the administrative and organisational problems of handling large numbers: how to administer large numbers of loans; how to expand the extension coverage; and so on. These problems are not yet solved. There is little indication of any questioning of the fundamental rationale of the programme, however. Little attention has been paid to the questions raised by the monitoring of the first year programme. P. Moock collected information on the first year credit recipients, and analysed it briefly (20). He showed clearly that those who received credit had already adopted most of ^{the} recommended package before they received any credit, and he compared their results with a similar sample and suggested that the increases in yields were quite small. Moock's report apparently never came into discussions of the second year of the programme in which the preoccupation was with doing what had been done in the first year a bit better, nor has it been considered in planning for the third year. Too often there is insufficient data to form the basis of substantial adaptation. In the Vihiga case the data were available, rather unusually, but they were not used. This is a serious criticism of the Vihiga SRDP. Quite substantial amounts of data became available over the course of time, but little use was made of them in modifying plans.

A credit programme to develop tea production is about to be launched in 1972/73. This involves loans to encourage the establishment of larger acreages of tea. Relatively small numbers of farmers will be involved. Vegetable production and marketing, pig production, and poultry production programmes are at the planning stage and some of these are expected (optimistically) to get off the ground in 1973. There is a training programme for extension officials, which has not been investigated adequately in this study. Land adjudication, dips, credit for grade cattle, rural industries, water, and village polytechnic programmes are continuing but they are only SRDP in so far as everything is SRDP. Roads, health and family planning programmes are being planned as part of SRDP and plans for these are likely to develop substantially in the coming months. Possible additions that are being discussed include electricity information, education and other programmes, but plans for these are still very tentative. Thus the only substantial SRDP programmes that are on the ground at the moment are the maize programme, and a general programme of extension training. Many other programmes are under way in Vihiga but these are not financed by SRDP, and none of them seems to be attributable to SRDP, although some of the ongoing programmes have probably received added impetus through the Vihiga SRDP.

EVALUATION OF THE AGRICULTURAL PRODUCTION PROGRAMME

GENERAL COMMENTS.

One conclusion of the section of the report on the resource endowment of Vihiga was that although the Division is densely populated, there does not appear to be either a marked, or a general, abundance of labour. At present the land resources are not intensively utilised, despite the limited size of individual holdings, probably because the returns to labour from more intensive use are insufficient to compete with alternative opportunities, given that education is considered to be the most rewarding allocation of such investible resources as are available. An appropriate programme would therefore appear to be one which can bring higher returns to land and labour, explicitly acknowledging the difficulty of obtaining adequate supplies of labour for farm work, and of attracting those seeking other opportunities to commit themselves (or their resources) to agricultural employment.

A second conclusion was that attention should be paid to the need to cater for the many different types of farmer: the diversity of the agricultural structure should be taken into account in the planning of the agricultural programme. In the preceding section it has been pointed out that this was indeed the original intention of the programme - all types of Vihiga farmers were to be catered for, both large and small, "progressive" and "non-progressive". However, it is apparent that the programme has developed in a way which concentrates attention on the "progressive" and the larger farmer. There appear to be two principal reasons for this development; the first is the choice of products, and the second is the measures which have been adopted during the detailed formulation of the strategy, particularly the credit measures. Hybrid maize, grade cattle and tea are unlikely to be suitable for poorer entrepreneurs lacking knowledge and skills, or those with few resources. The same criticism is applicable to horticultural crops, pigs, and poultry, indeed most of the other elements of the programme. In the execution of the programme the natural desire for results seems to have led to a bias in favour of skilled entrepreneurs, against "non-progressive" farmers and those with very small holdings which are often considered to be unviable. The maize credit package, despite its earlier promise, is available only to farmers growing between 2 and 4 acres of maize, and credit-worthiness is a test of entitlement to the loan. So far the programme has done little for the average farmer, the small farmer, and the poor entrepreneur.

THE MAIZE CREDIT PACKAGE.

There are two distinct parts of the maize credit package which are discussed separately: (1) the encouragement of hybrid maize production ; (2) the use of tied credit provision as a means of encouragement. It is felt that the appropriateness of the emphasis on hybrid maize is quite separate from the issue of whether or not the provision of tied credit was the right way to encourage it. Before examining these two separate issues, the objectives of the maize credit package are considered.

The Objectives:

The immediate objectives of the maize credit package have been variously stated as:

1. "Promotion of.. intensification of smallholder production of..... hybrid maize (through improved availability of seeds and fertiliser and demonstration of proper planting techniques) to raise yields and reduce total maize acreage" (2, p.2);
2. "To achieve self sufficiency in maize through increased yields; to reduce acreage for transfer to cattle and pig production" (2, p.8);
3. ".. maize should be encouraged only to the point of self sufficiency for the family. This would require about 15 bags per year (per farm)" (6. p.3);
4. "Its primary purpose (is) to make Vihiga Division self-supporting in maize" (15, p.1);
5. ".. self sufficiency of the area in the production of maize!.." (12, p.5);

These objectives need further clarification. The question of self-sufficiency is confused: is it envisaged that each family will be self-sufficient, or that the Division as a whole will achieve self-sufficiency through specialisation within the Division, or is self-sufficiency envisaged on a wider or narrower basis than the Division, the 'area'? Secondly, there is the question of the reduced acreage of maize: is it intended to reduce the maize acreage because it is not profitable to produce a surplus beyond that required for self-sufficiency however defined? This is related to the question of which alternative products are to accompany maize: that is the rest of the programme which so far has been insufficiently developed.

The instrumental objective of the package has been stated as:

To create "... an experimental small-holder credit scheme...(the) loans to be secured by the harvest of the borrowers" (13, p.5), backed up by an intensive extension effort.

It has already been pointed out that the practical problems of initiating such a scheme have led to the emergence of a marked divergence between the intended form of the package and its actual achievement. The experimental features of the package have been lost, partly due to a failure to spell out the implications of the instrumental objective at an early stage. Had this been done, it would have become clear that there was a conflict between an experimental package, and a package that could be justified on grounds acceptable to the agencies chosen to implement the scheme. These points are discussed further below.

The ultimate objective is also worthy of consideration:

"optimising the level of income received by the average farmer in Vihiga" (14).

The link between attaining self-sufficiency in maize requirements and improving the level of income in Vihiga is not elaborated upon explicitly in any of the documents. Nor is any attention devoted to the distributional aspects of the package. The stated objective of attaining self-sufficiency for each and every individual farmer has a clear distribution association, but there is no analysis of the likely outcomes of the programme and whether they are consistent with the distributional intentions of the package. The alternative formulation - self-sufficiency through the specialisation of the few - evidently has a very different implication with regard to the distribution of the gains from the package, though in the long run it is not necessarily less equitable than the other approach.

It is evident that the objectives of the maize credit scheme have been imprecisely specified, a deficiency stemming in part from the poor factual basis available to the planners, but also from their apparent disinclination to examine the wider implications of the project in terms of individual and overall behaviour. The micro aspects of the project have been poorly bonded to the macro dimensions of the objectives.

The Choice of Maize:

Three reasons appear to underlie the choice of maize: Vihiga is considered to be a deficit area; it is considered to possess a physical environment suitable for hybrid maize; and it is felt that a densely populated area should feed itself. In the first place, the basis for considering Vihiga a deficit area has not been stated in any of the documents.

The most satisfactory way of establishing whether a deficit exists is through the collection of simple market information. Possibly the Division imports maize from other areas to make up for a shortfall in its domestic production, but there is insufficient information to establish this. Sources, quantities, prices, and the market mechanisms which affect this are not mentioned. It is possible that maize is sold at one time of the year and bought at another, and there would be no deficit at all if adequate maize storage facilities were available in Vihiga. The alternative way to calculate the deficit is from estimates of the consumption requirements of the population and actual production in the Division, but this approach raised serious problems. It involves a strong assumption regarding the desirable proportion of maize in the diet of Vihigans, and it is critically affected by the accuracy of the estimates of maize acreages and yields. In section II it was suggested that there may be a deficit estimated in this way, but the weaknesses of this method of estimation were also stressed. The collection of appropriate market information is recommended to establish whether or not there is a maize deficit.

Vihiga does appear to possess a physical environment that is well suited to the production of hybrid maize. What is questionable, though, is the desirability of focussing so heavily on maize at the expense of other alternatives.

The question of self-sufficiency is most perplexing: should a densely populated area feed itself? It has been argued that because Vihiga is a 'bedroom' community, and Vihigans are interested in farming to satisfy only their food requirements, it is logical to devise a programme to encourage food production, enabling Vihigans to produce their food instead of purchasing it. However this confuses the desire to increase the availability of maize or other foods in the Division with the objective of achieving this through increased maize production. Apart from the question of whether it is additional maize or additional foods of other kinds that are needed, there is the question of whether it might be cheaper to import maize in exchange for other farm produce than to produce it directly. It is not always worthwhile to produce all of one's food supply locally. The alternative of producing more of other products that can be exchanged on the market for maize, is generally open, and may increase the availability of maize more than by increased maize production. It is possible that there already is a substantial trade in maize between Vihiga and other Divisions and Districts; this may be the most economic way of obtaining maize for consumption. If it is to be worthwhile for Vihiga farmers to produce more maize, returns to both land and labour must be attractive relative to other alternatives. Simple comparative return figures for alternative possible products do not appear to have been estimated at any stage, although they are crucial to farmers' desires to expand maize rather than other lines of production. Unless it can be established that maize offers one of the most attractive labour and land returns, it should not be encouraged.

If it is worthwhile to produce maize for domestic consumption, it may also be worthwhile to produce for other markets in Kenya or elsewhere, rather than drawing the line at local self-sufficiency. However, once the local consumption market is satisfied it is to be expected that the price will fall to take account of transport and other costs involved. If export is involved then the price would fall to the export parity price; if the utilisation of maize for stock feed is contemplated then the price would be even lower. What level of production of maize - and therefore supplying which markets - will provide a sufficiently high return to land and labour? The prices vary considerably over time and between markets. At the moment local prices are said to range between Shs: 70.00 and Shs: 30.00; the buying price of the Maize and Produce Board is at present about Shs: 35.00; the export parity price might be about Shs: 20.00; the value as stock feed could be as low as Shs: 15.00. The range is sufficiently wide to suggest that at the same price level within the range alternative products will become more profitable.

There is also the question of whether all farmers should be encouraged to grow hybrid maize or only some; the objectives of the maize credit package are not sufficiently explicit as to whether Vihiga is expected to become self-sufficient through specialisation or individual self-sufficiency on each farm. At present an average of one acre of maize per farm is grown, but the productivity increases were envisaged as sufficiently high to allow self-sufficiency to be achieved on a smaller acreage than at present. The loan for the recommended inputs for one acre of maize amounts to shs: 105.00. The price of maize at the time when the loan has to be repaid is apparently shs: 30.00 or less. Thus, at least 3.5 bags of maize are required to repay the loan. If self-sufficiency is to be achieved, at 15 bags per family, 18.5 bags per acre need to be produced on the present acreage, more if the acreage is to be reduced. This represents an increase of 10-12 bags per acre over the present mean of 6-8 bags, without reducing the acreage. This requirement is reduced to the extent that maize requirements per family are overestimated at 15 bags, and to the extent that a second crop makes some contribution to the maize supply. However, it is clear that very much improved husbandry techniques would be required to achieve individual self-sufficiency, and this requires a level of labour and skills which not all farmers have.

The second formulation of the objective requires rather different responses. Self-sufficiency for the Division could be achieved through a higher degree of specialisation (though not the creation of a monoculture) of some farmers in the production of maize for sale in addition to home consumption. It is quite likely that some farmers in Vihiga are already doing this. The 600-

farmer survey show that a minority of farmers have very high maize yields (10 per cent had yields over 16 bags per acre in the 1970 long rains), and a minority grow relatively large acreages of maize (11 per cent grew more than 2 acres in the 1970 long rains), (1, Tables 34 and 37). If these two groups coincided, and if the means for this group were 3 acres of maize and a yield of 18 bags per acre, a farm belonging to this group could provide sufficient maize to meet the subsistence requirements of 6 families (at 15 bags per family per year) including the farm family itself. If 16 per cent of the farms fell into this group, Vihiga could be self-sufficient with no maize at all on other farms, provided that the surplus maize could be purchased by those not growing maize on their own farms. In practice of course some maize would probably continue to be produced on most farms, for some time, reducing the required degree of specialisation. The implications of this approach might include the need to devote more acreage on the specialising farms to the production of maize instead of reducing the acreage; it might also involve the encouragement of the specialising farms, i.e. possibly an acceleration of a process which is already going on. Unfortunately, there is very little information on the existing pattern of grain movements in the Division, consequently it is not possible to assess the extent to which there are already incentives towards specialisation in maize production. However, it is evident that the approach to meeting the maize deficit through the specialisation of a minority of farmers is a distinct alternative that would require very different policies on the part of the Government.

Finally, there is the choice of hybrid rather than local or synthetic maize. Hybrid is not necessarily superior to local or synthetic maize varieties for all farmers. Hybrid maize needs a high standard of husbandry and an intensive use of complementary inputs to be a successful competitor to local maize. It may be a suitable product for skilled entrepreneurs and for those with ample resources. It may not be suitable for others. In 1970, 47 per cent of all farmers in Vihiga grew hybrid maize, and 59 per cent had tried it at one time or another (1, Table 23, 24). It could be that 47 per cent is about the proportion for whom it is worthwhile, (although there may still be some room for expansion). Perhaps the remaining 53 per cent would do better to continue with the local maize variety or take up synthetic maize. Synthetic maize, which is less demanding than hybrid maize in terms of husbandry and complementary inputs, and which has the advantage of meeting its own subsequent seed requirements appears not to have been seriously considered recently (33). The possibility that for quite a large number of farmers local maize might be superior to hybrid maize appears not to have been considered in Vihiga SRDP discussions. It may be that hybrid maize has now reached most of the farms on which it is worthwhile, and that it would be a more productive use of resources to turn to something else

now that the hybrid maize "plateau" has been reached. This possibility should be seriously considered.

In summary, it is recommended that hybrid maize continue to be encouraged in Vihiga, but not for all farmers and not exclusively. The extent to which the production of hybrid maize is to be encouraged should be reconsidered, and several other products should be added quickly to accompany maize. Promotion of hybrid maize alone is unlikely to benefit all farmers, and even for those who are encouraged to grow hybrid maize it may be appropriate to combine it with other products; these are also in need of encouragement. It is strongly recommended that the active promotion of additional products of relevance to large numbers of farmers in Vihiga should become a central component of the agricultural programme. These additional products could be identified initially through the collection of farm profitability estimates, and through consultations with agriculturalists familiar with Vihiga conditions, a point developed below.

The Recommended Input Package:

The husbandry and input practices recommended in the maize credit package appear to be satisfactory, apart from the fact that the rates of application of fertiliser are substantially lower than those recommended by Kitale. The overestimation of acreages compensated in part for the use of the lower rate in the first year, but in the second year acreages were more accurately measured and the error may have been more serious. The Kitale recommendation was 60 lbs. P_2O_5 and 75 lbs. N per acre; the loan was for approximately 46 lbs. of each per acre. This meant that low application rates were achieved, but it also meant that farmers may have been seriously misinstructed over ~~the~~ use of fertiliser, and this could be regarded as a very damaging criticism, although it is possible that the economically efficient package does indeed involve lower rates of application than the technically efficient package that might emerge in recommendations from an agricultural research station.⁺ This possibility should be actively considered.

+ Technically efficient recommendations are often geared to maximising yields per acre whereas economically efficient recommendations involve maximising returns to other factors as well as land.

Questions should also be raised as to the extent to which the recommended inputs are already being applied by farmers, and the extent to which further encouragement is needed. In the 1970 long rains, 47 per cent of Vihiga farmers were growing hybrid maize as already mentioned; 41 per cent were using chemical fertilisers, not necessarily both the recommended ones and not necessarily the recommended rates; and 20 per cent were using insecticides, (1, Tables 23, 24, 29 and 31). Thus, both fertilisers and insecticides were already used by substantial numbers of farmers. The advisability of encouraging the extension of their use is not open to question, but this has been overemphasised in some of the Vihiga documents, and relatively little attention has been paid to the fact that substantial numbers of farmers already use these inputs. Therefore it is recommended that the emphasis be shifted away from the most progressive farmers who already use the inputs, to the less progressive farmers who do not.

The Mechanism for Getting the Package Adopted:

The second major issue is the use of tied supervised credit provision as a means of encouraging the adoption of hybrid maize and the recommended inputs. Assuming that it is important to get more people growing hybrid maize and using the recommended package of inputs (which is questionable), there are alternative methods of achieving this. Should the emphasis be on extension (what kind of extension?), farmer training, demonstrations, subsidised inputs, or credit (what kind of credit?) provision, or on a combination of these and other alternatives? The Vihiga programme relies heavily on tied - credit provision and intensive extension contact for the few. There are also fertiliser demonstrations which are part of a larger programme organised by FAO. Most of the discussion relates to the credit programme as there has been no opportunity to look into the extension programme at all fully.

Is the provision of credit the most appropriate method of encouraging the further adoption of hybrid maize? It always seems to be popular with those who want a tangible agricultural development programme, and it seems to be a favourite with donors who want to spend funds. But it is rarely made clear what credit is, or under what conditions a lack of credit constitutes a constraint. The essence of credit is that it provides an opportunity to defer payment for goods and services, an opportunity which is attractive because the incurring of costs has to precede the receipt of revenue by the duration of the production and marketing processes (in agriculture a relatively long period). It is a cash-flow problem, a problem of timely availability of funds which gives rise to the need for credit, and since this is common to virtually all agricultural

processes, it may be inferred from the active pursuit of existing enterprises in Vikiga that many cash-flow problems are somehow surmounted. Possibly the producer retains a larger cash balance between sale of one crop and purchase of the inputs for the subsequent ones; possibly he may ensure that remittances of non-farm income coincide with these expenditures; possibly he borrows; possibly he reduces consumption. However, it is invalid to infer from the mere fact that an innovation has not been adopted, or that a higher level of output has not been attained that the cash-flow problem, and therefore lack of credit, is the operative constraint. The further information has to be provided that the farmer is sufficiently confident that additional resources will yield a positive net return in a particular use, taking due account of the risk and uncertainty, and that lower-cost or more attractive internal solutions to the cash-flow problem are not available. One reason for the non-provision of credit may be the lack of demand for it due to the producer's perception of the non-profitability of an innovation, or of the non-profitability of an expanded level of output of a particular product.

There are other reasons for the non-provision of credit: one is the absence of effective security. (It has to be effective; a land title may not be effective security if it is unlikely that the creditor will be permitted to **dispossess** the owner in the event of non-repayment). Generally credit of the **"seed-time to harvest"** type - i.e. to meet current outgoings, not capital **expenses - requires little in** the way of security, but much in the way of **efficient administration**. Security is confidence, and reputation is the **conventional** guide to confidence where there is no history of credit repayment. But this can only be put to effective use if there is an intricate network of credit agencies capable of assessing credit-worthiness.

Another explanation of the apparent absence of credit-provision is that there is no market for it - not simply that there is no demand for it, but that there is no demand at commercial rates, and therefore no incentive for the creation of the network of outlets necessary to establish the optimal allocation of available funds. This brings the argument back to the profitability of the enterprises which could potentially be users of credit. Due to the many alternative uses of funds the provision of credit to a particular use is not without its costs; the concept of free or subsidised credit is a distortion of reality, and is certainly not replicable on a national level. It is a moot point that where a network of credit agencies has not become established the subsidisation of credit provision may be an appropriate measure, but such a subsidy should be directed towards the lender, not the borrower, if a replicable scheme is to be developed. From the above discussion the following conclusion

emerges: the provision of credit in Vihiga is justified if it is directed to those producers for whom the cash-flow problem is the principal reason for not taking up hybrid maize and for whom hybrid maize production is sufficiently profitable after allowing for the cost of the credit. It goes without saying that if the immediate objective is the increased adoption of hybrid maize then it should go to the producers in this category who have not yet grown hybrid maize. This may not be necessary if the objective is simply to increase the production of maize.

There is a second justification of the provision of credit: if the constraint is the lack of appropriate husbandry skills, and the strategy to make good this deficiency is intensive extension supervision, it may improve the impact of this input if credit is also offered. It is argued that credit provides the excuse to concentrate on a few farms, that it gives an entree into the farms and a means of putting pressure on the farmers, and that it raises the morale of the extension officials and farmers involved. These may be sufficient grounds for ignoring the requirements of the preceding justification, and giving credit where there is in fact no credit constraint. In addition to the increased impact of the extension services achieved in this way, there are also benefits to be derived from the fact that the credit provided probably displaces other funds and permits their allocation to other uses. So the second conclusion is that the provision of credit in Vihiga is justified if it is directed to those producers selected as being likely to benefit most from intensive extension supervision, i.e. those for whom the principal constraint in the production of hybrid maize is the lack of the appropriate knowledge, and who are likely to respond to the "bribe".

There is no evidence to show that either justification of the provision of credit guided action in Vihiga. The absence of any profitability estimates regarding the adoption or increased production of hybrid maize has been **remarked** upon already, so those for whom the lack of credit was a constraint could not be identified. Credit was obtained by some who would not be regarded as **experiencing** a shortage of internal funds - though that in itself is not positive proof that they do not "need" the credit, since it is in the nature of things that when individual's command over resources is limited the offer of more, particularly when it is free, is rarely refused. However, it is quite clear that some of those qualifying for credit had already adopted hybrid maize and were already applying the recommended practices; their inclusion in the scheme is certainly not justified on the grounds of their need to obtain the extension supervision.

The inevitability of this outcome is discussed below, in the course of examining the details of the scheme.

The type of credit chosen for Vihiga is short-term "seed-time to harvest", and it is tied to the purchase of specified inputs. The implications of this choice should be considered. Firstly there is the assumption that the constraint is the absence of funds to meet current outgoings, and not to purchase capital assets (storage facilities, for example). The implication is that such an injection would have to be repeated annually, but in fact this issue was never discussed. Indeed it may be that the rationale underlying the project was to permit the producer to raise his productivity to a new higher level which would permit him to be self-sufficient after the first injection. If this were the case it may well justify the provision of credit at less than commercial rates, and this arrangement might be replicable over the whole country, a small area at a time. It is strongly recommended that this issue be given consideration, in order to establish whether the credit should be provided on non-commercial terms (as in the first year when no charge was made) or commercial ⁺ terms (as in the second year).

Secondly, it is tied to material inputs of specified types (as well as to intensive supervision), and is not available to finance other current expenses such as the hiring of labour. These complementary inputs have to be found and paid for by the farmer himself. This reveals the implicit objective of the project, and the particular interpretation of the resource endowment of the area:

its purpose is to "benefit farmers with a surplus of family labour but with insufficient funds at planting time to purchase..... seed, fertiliser, and insecticide" (16, p.1).

It should be pointed out that the original proposal by Harmon (US AID) included labour as eligible for credit; this was later ignored or dropped.

Thirdly, the loan is in kind but repayment has to be in cash implying that at least part of the crop must be sold for cash, or cash must be diverted from other uses to repay the loan. This conflicts with the idea of individual self-sufficiency and nil dependence on a local maize market, but not with the idea of self-sufficiency for the Division through individual specialisation.

⁺ Strictly speaking, less than commercial terms; there were apparently no attempts to cost the exercise or to compare interest rates with those determined under commercial conditions.

Fourthly, the concept of a growing crop as security for a loan is self-contradictory: the crop must be consumed or sold, and either way the security can disappear while the obligation to repay remains. Only if the crop is marketed through a parastatal authority is control retained when the crop is disposed of on the market, and only then can the crop be employed as security against a loan. Under these conditions a broadly-based credit scheme is possible, paying little attention to selection criteria, but even then there are problems of black markets, and what to do if output fails. However, in the Vihiga case no control is maintained over the marketing of the crop; consequently alternative means of enforcing or encouraging repayment are required. To this mistaken view of the security offered by a growing crop may be attributed the restriction of the credit scheme to producers who satisfied fairly stringent and restrictive criteria, and the emergence of a group of recipients for a proportion of whom the provision of credit appeared to be justified on neither of the grounds discussed above. The minimum maize acreage requirement of two acres eliminated a large proportion of Vihiga farmers from the scheme: only 61 per cent of the farms have a total acreage of two or more acres, and only 13 per cent grew two acres or more of maize in the 1970 rains (1, Tables 13, 34). Some farmers may have been able to increase their maize acreages and therefore qualify for inclusion, but for the vast majority the two acre minimum must have been either uneconomic or physically impossible. P. Mook pointed out that "The average self-declared farm size of loan recipients is nearly seven acres...." (32, p.5). Among the 22 farmers selected in the first year from outside the 500-farmer sample were one chief, two sub-chiefs, three AAs, and several teachers and traders. In the second year both the selection procedures and the outcome of the selection process were criticised by P. Mook. The sub-chiefs and the AA's were supposed to publicise the fact that loan applications would be received from anyone wishing to apply, and to make known the days on which loan applications would be accepted at the locational or divisional offices, but according to Mook few farmers knew of the year's programme or the opportunity to apply for loans, let alone the particular days on which applications could be made. Among those selected were several "farmers who clearly do not suffer from any financial constraint in the purchase of maize inputs, (and who are not) in our opinion,..... in most need of the intensive supervision extended to credit recipients" (19, p.1). Mook's impression was that a number of sub-chiefs, and some AAs as well, exercised their discretion about who should be informed. Considerable screening also apparently took place at an informal level before applications were presented to the formal committees.

As would be expected from the great selectivity of the scheme as it was implemented a high proportion of the loan recipients had already adopted many of the hybrid maize recommendations.

"Of the 56 farmers who signed loan agreements and (were among the 600 initially surveyed):

- (i) .. 79 per cent had already adopted hybrid maize
 - (ii) .. 61 per cent grew hybrid maize in the 1970 Long Rains
 - (iii) .. 50 per cent were already using chemical fertilisers on hybrid maize
 - (iv) .. 18 per cent were already using D.D.T. on hybrid maize"
- (16, p.2)

Fifthly, in the first year of the scheme no attempt was made to recoup any part of the cost of the provision of credit, but in the second year this was amended to an interest charge of 12 per cent per annum (16, p.2). Possibly this reflected the conflict of views on subsidised credit noted above:

"The provision of loans ... must be recognised as necessarily containing a large element of Government subsidy. (Steps should be taken to ensure that it) does not amount to a waste of public funds" (16, p.2)

"Subsidisation of credit is not recommended ~~because it tends to~~ produce an enterprise that may not be able to stand on its own feet" (17, p.40 A donor report!)

The earlier discussion suggested that subsidisation of credit was a wrong strategy where annually repeated injections were envisaged, on the grounds that such a strategy was not replicable on a national level, but that there might be a place for it if a once-and-for-all injection could lift the producer permanently onto a sounder economic footing, having implemented the other part of the package. However, just as the question of whether the injection should be repeated or not was never thoroughly examined, neither was the issue of the subsidy element in the loan - ignoring for the moment the even greater subsidy involved in the intensive supervision. This issue is directly related to the concept of credit-worthiness, which, as one of the selection criteria, has taken on considerable significance. Ideally it should mean "worthy of receiving credit", that is, being rated a low risk of non-payment. In deciding who qualify there is obviously an inherent bias in favour of the already-successful, and against the potentially-successful producer if creditworthiness is the test. However,

the choice of the "non-progressive" and the low productivity producer as the target of the scheme does not necessarily imply that non-creditworthiness (i.e. the likelihood that the producer will default) should become the criterion; instead it requires the introduction of a procedure which will identify the potentially - creditworthy among the present "non-progressive" and low productivity producers. So again the critical issue is the producer's view of the profitability in use of the inputs and the husbandry skills provided by the package. However, if the credit is subsidised then there will be a distortion of the profitability of the crop and more will be encouraged to grow it than market cost/return relationships allow. As pointed out already, if the credit is a one-shot "funds for take-off" type which will not be repeated in subsequent years then the distortion will not be considered and those who are on the margin of profitability will presumably revert to traditional crops and practices in the subsequent season. But if the provision of subsidised credit is to be a permanent feature of the production system the distortion may become considerable, and the production of high-cost hybrid maize become a problem to be encountered in the future. It has also been pointed that the continuous provision of subsidised credit is a non-replicable strategy, and therefore inconsistent with the principles of SRDP.

A final comment is due on the failure to see credit as only one of a number of alternative ways of encouraging the adoption of a hybrid maize package. It would appear that the alternatives, such as different types of extension, demonstrations, farmer training, production grants, have not been considered, still less subjected to experimentation. A discussion of alternatives was initiated by Harmon, but appears not to have been taken seriously by anyone else responsible for the development of the Vihiga programme. The exclusive concentration on credit provision may explain the reluctance to amend the scheme in the light of the results of the performance in the first year, despite signs of apparent ineffectiveness of credit of the type provided. Of the 76 farmers whose applications to receive credit were approved, 63 used the credit - two refused the loan after signing, six received inputs but invoices were not submitted by the stockists for repayment, and for the remaining five the reason was not known. The repayment rate as of May 1972 was 72 per cent (31, p.1), a low figure despite the fact that the loan was interest free; in October 1971, after the harvest when the loan was to have been repaid, the repayment rate was only 26 per cent (15, p.6). To this may be linked the fact that the actual increase in yields attributable to the application of the package may not have been very large, though it is difficult to be conclusive in this respect. Yields of first year recipients ranged from 11 to 33 bags per acre, averaging 21 bags; yields achieved without credit by an admittedly non-representative group of "progressive" farmers

surveyed by P. Mook, the Area Evaluator, averaged 18 bags per acre using the two fertilisers recommended, and 16 bags using only one of them. It is significant that five of this group used local seed plus nitrogen, top-dressing and achieved an average of 19 bags per acre (32, p.5). Of course, it may be appropriate to argue that the poor improvement in yields which can be attributed to the credit package was a direct result of the selection criteria picking out producers who were already growing hybrid maize fairly well. However, that does not then permit the conclusion that had the "non-progressive" producers been selected their yields would have reached these levels. It is likely that producers already involved in hybrid maize found it profitable, and had no serious difficulty in finding the appropriate complementary inputs; it has yet to be established that this is true of the producers who are not involved in the credit scheme at the moment, or of the so-called "non-progressives". The lack of success of the maize credit scheme to date underlines the need to develop the experimental nature of the programme, and, if hybrid maize has still to be encouraged, to test other strategies for encouraging its adoption. The fact that there is some evidence that neighbours of farmers in the credit scheme have adopted the whole of the package without credit suggests that, apart from the obvious point that for them the constraint was not credit, there may be a role for simple demonstrations as a means of encouraging those who feel that hybrid maize is profitable to commence production. In addition it is also questionable whether the distribution of extension advice was the optimal one: the considerable extra burden which the extension staff has to bear in servicing the loan recipients, many of whom patently do not need their services, must have been at the expense of applying their skills elsewhere. It has been said that the Vihiga extension services were so under-utilised before that the other farmers are not losing anything, and the introduction of the credit scheme has mobilised this resource; however, the opportunity cost of this particular allocation of their time should be assessed not in relation to what they once did, but what they could now be doing instead.

A principal conclusion is that considerable lessons can be learned from the experience since the inception of the maize credit package. It is vitally important that the lack of success in terms of the objective of the project is not made a justification for writing off this experience, even if the project itself is discontinued. It is better to learn from experience than to discard the project and pick up another in which the same errors are made, once more to no avail. The following are suggested as topics for carefully considered reflection on the Vihiga experience:

- (1) No strategy can be blamed for wrong selection of the objective of a project - the profitability of maize production has to be examined, the appropriate level of production of maize for Vihiga selected, the group of producers considered to be the target identified, and the availability of complementary inputs, in particular labour, within that group verified.
- (2) Much of the experimental nature of SRDP stems from the willingness to consider a number of strategies, and combinations of strategies, rather than to depend on a single change agent. Though much of the foregoing discussion has centred on credit - since this was the chosen strategy - the possibility of using various strategies simultaneously within a particular area in a way designed to establish which are the most suitable for replication should not be overlooked. The use of a variety of measures necessitates careful experimental design in order to be able to ascribe results to particular strategies. In the project as it is currently implemented it is not possible to establish whether credit or the extension advice which is given to credit recipients is the more effective.
- (3) The choice of the provision of financial assistance should be seen to emerge from the identification of a short-run or long-run cash-flow problem, which in turn necessitates an examination of the present "internal" sources of funds for the purchase of inputs, and principal expenditure flows which might compete with agricultural uses. It may be necessary to reconsider lending money to enable producers to hire labour.
- (4) The need for loaned funds having been established and the potential recipients identified, the next consideration is the choice whether to create what might ultimately become a permanent facility through which credit or other types of loans would be offered, or provide one-shot "take-off" injections of finance. This would include a review of the most appropriate repayment schedules, in the light also of (3) above.
- (5) The final area of choice concerns the alternative ways of introducing the loaned funds into the production system, bearing in mind that if the ultimate requirement is a fairly permanent credit structure adequate effective security, not to mention administrative competence, is required. Should it be funnelled directly to the producers over whom, in the case of maize, there are no sanctions in the event of non-repayment, or should it be provided via the marketing or input supply commercial channels, over whom there may be a greater degree

of control? Even if credit extended to input stockists was not passed on to the producer the availability of supplies of inputs might well be improved. Indeed the improvement of commercial services complementary to agricultural production would have important consequences in that sector.

OTHER COMPONENTS OF THE AGRICULTURAL PRODUCTION PROGRAMME.

One of the serious problems with the Vihiga agricultural production programme is its emphasis on a single product, hybrid maize. It has certainly been the intention throughout that other products will be added, but in the third year of the programme, 1972/73, the only product that is being added to maize as an SRDP activity is tea. Other products under discussion or somewhere in the process of planning include cattle, vegetables, poultry and pigs, but none of these has yet reached the final planning stage. The failure to develop additional production programmes, and the limited range of alternatives presently under discussion are sources of considerable concern. In 1970 Harmon stressed the need for simple farm profitability estimates to enable the development of a broader programme. At that time it was understandable that these estimates did not exist, but now, two years later, there is less excuse for these figures still not being available. Given the crucial importance of farm profitability calculations to assist in the selection of additional products for the agricultural programme, it is disturbing to note that no attempt has been made to start collecting this information. Substantial quantities of survey data have been collected in the 600 farmer survey, but no parallel exercise has been undertaken to provide farm management information. It is recommended as a matter of urgency that attempts be made to start collecting simple farm management information, perhaps with the assistance of the Farm Management Unit in the Ministry of Agriculture, which is just starting a national recording system for similar purposes.

In addition to farm profitability estimates, there is a need for further discussion with agricultural scientists familiar with the Vihiga environment to see if there are any additional products that might be worth developing. The current discussion is confined to the products listed early in the planning of the Vihiga programme. There is a need to widen the range of alternative products under discussion. This should be done with the assistance of agricultural scientists and those involved in the collection of farm management information.

Among the products under discussion at present, none looks promising for more than a small group of farmers with above average entrepreneurial skills, and above average resources of other kinds. There are the farmers also eligible for the maize credit package. There is little indication that any of the production programmes currently under discussion will help the majority of Vihigans. Unless the majority is consciously planned for, it does not look as if SRDP will be significantly different from what has gone before in emphasising the small minority of well-endowed farms and leaving the majority alone.

There are some problems with the proposals for tea and dairy cattle, and with those for other products that are at earlier stages of planning. However, the main criticisms are those given above; many others are similar to those already spelled out for the maize credit package: for example, to encourage the development of tea through the provision of credit again ignores the labour problem. It is not intended to pursue any further evaluation of the other individual production projects in this paper.

EVALUATION OF THE INSTITUTIONAL ARRANGEMENTS
FOR MARKETING AND CREDIT

The following comments are directed at the institutional arrangements chosen to be the vehicle for the provision of credit to selected maize farmers. Earlier in the report it was pointed out that the information available on the institutional framework of the Vihiga economy is limited, and this is now discussed in relation to the marketing arrangements. The central theme of this section is that the maize credit package has not been grafted onto the existing market structure; instead it forms an over-layer largely independent of the local marketing system. For this reason it may be a less efficient system than one which uses existing marketing resources to the full.

OUTLINE OF THE INSTITUTIONAL ELEMENTS OF THE PACKAGE

The institutional arrangements chosen for the provision of credit to maize producers in Vihiga involve selected existing stockists of agricultural inputs as agents of the Government rather than as profit-maximising enterprises in their own right. This results from the nature of the credit instrument, or "Authority to Incur Expenditure", issued to successful loan applicants, which entitles them to specified quantities of hybrid maize seed, fertiliser, and insecticide up to maximum monetary value free of charge. On being presented with this document the stockist is expected to supply these inputs to the farmer. He then submits signed invoices for the inputs supplied to A.F.C. Kakamega for verification, and repayment is subsequently made through the A.F.C. office in Nairobi. The administrative timelag which results from this procedure means that the stockist is obliged to provide free credit to the producer (or to A.F.C., depending on how one looks at it) between supplying the inputs and receiving payment from the A.F.C. In the first year of the scheme, 1970/71, the producer was not required to pay interest on this credit, but in the second year a charge of one per cent per month was introduced. But although the credit is provided by the stockist until he is paid for the inputs - at which time the A.F.C. effectively makes a loan to the producer - none of this interest payment accrues to the stockist, even though it is charged for the entire period between the producer accepting the conditions of the scheme and receiving the authority to incur expenditure, and repaying to the A.F.C. It is little wonder that some stockists refused to honour the authority, and complained that the time taken to effect payment (apparently 30 to 60 days) tied up their limited capital for an excessively long period of time (15, p.6).

The selection process, and the means whereby the stockists obtained supplies do not appear to have been discussed at all. The incentive to encourage stockists to take part in the scheme is presumably the potentially higher level of sales of the inputs which they could realise, though this can^{only} be achieved through the carrying of a higher level of stocks; it is not clear whether these are obtained on cash or credit terms. If they were responsible for obtaining these additional stocks on cash terms then their availability of capital would be an important factor influencing both their willingness to participate and their degree of co-operation. Presumably proximity to the participants in the scheme was also an important consideration, rather than other characteristics of the stockists such as efficiency or size. It appears, however, that their co-operation involves a modification of their normal commercial behaviour: in the first year of the scheme the total value of the loan was calculated at standard input prices, but as there are apparently no list prices for fertiliser supplied in small lots up-country, there was substantial variation in the prices charged by different stockists. Although this may be a normal characteristic of the inputs market, it was considered to be a deficiency of the scheme since it meant that lower application rates resulted for those producers who were obliged to purchase inputs at higher prices than those at which the credit requirement had been calculated. (The fact that input price variation alters the economically-optimal package appears to have been overlooked). Therefore in the second year stockists were expected to supply inputs at specified prices, irrespective of cost differences and variation in profit rates among different types of fertiliser.

However, there appears to be room for improvement in the service provided by the stockists. Some appear to have little knowledge of the appropriate fertiliser application rates (15, p.9), and the apparently wide range of bag sizes and fertiliser analyses is probably an inefficient mix. Nevertheless, where co-operation is sought it is inappropriate to endeavour to make good these deficiencies by edict rather than through the creation of the necessary incentives. It is understandable that stockists were not happy about participation in a scheme which showed such disregard for their interests.

THE EXISTING MARKETING STRUCTURE.

In suggesting fuller participation by the existing marketing institutions, it is recognised that planners are handicapped by the limited amount of information which appears to be available on these institutions. There are apparently several different types of participants in the Vihiga marketing structure for agricultural inputs and outputs; (1) agents of the Maize and Produce Board; (2) shopkeepers who buy maize, store it, and sell it in Vihiga again; (3) input stockists; (4) coffee cooperatives.

(1) The agents of the Maize and Produce Board are supposed to step into the maize market to purchase at the Board buying price (the floor price) when there is a surplus of maize. However, it is frequently stated that Vihiga is a maize-deficit area, and that the role of the Board is therefore very limited in this respect. In 1971 no maize was delivered to the Board and according to the Board this is the normal position. If the area is a deficit area, the Maize and Produce Board might be expected to meet the deficit by selling maize in Vihiga once a ceiling price is reached. There is little evidence of the Maize and Produce Board's activities in this respect, although one would not normally expect them to use their buying agents for the sales.

(2) The shopkeepers who buy maize, store it, and sell it again perform two functions. They provide a ready cash market for the crop at harvest, when cash requirements are apparently high, and they store the maize crop until it is required for consumption, at which time it commands a premium reflecting the producer's desire for ready cash, the cost of storage, losses during storage, and the cost (including transport) of obtaining supplies from elsewhere when necessary. Apart from that there is little information on their functions. It is not clear whether all farmers sell at harvest time, whether those who sell buy back later, or how the flows go. Nor is it clear whether the price differential would be reduced by the provision of more storage, either at shops or on farms. Furthermore, it is not clear whether they would benefit or suffer from a substantial increase in maize output. These questions require investigation.

(3) As has been pointed out above the role of the input stockists is an important one but very little analytical work appears to have been carried out; indeed there is a paucity of information even of a descriptive kind - how many stockists are there, how big are they in terms of turnover, how many customers does each have, what are the capital requirements of their businesses, with which other activities in the agricultural or commercial sector are they integrated? Few of these questions can be answered, and therefore little can be said about the determinants of their performance. It would appear that since their function is to derive a living at least partially from the sale of agricultural inputs they are potentially in a position to both estimate the probable extent of the market for fertiliser, and identify those producers who are considered to be worthy of credit. Indeed they may already provide inputs on credit, but it is open to question whether they can adopt a more risky policy of identifying the potentially creditworthy, rather than those who are already successful, and therefore good risks.

(4) An existing marketing channel which provides some of the envisaged functions such as credit and input provision is the coffee co-operatives, which should be mentioned as an alternative form of institution which may have a role to play in the development of the maize package. There are four such co-operatives, concentrated, naturally, in the coffee producing part of the Division. At least one of them already provides hybrid maize inputs as an alternative to cash for coffee deliveries. However, in relation to the large indebtedness of members to the co-operatives and in turn the indebtedness of the co-operatives to the co-operative union, and the very low sales per member, the following comments were made:

"... it would appear the existing co-operatives are not financially capable and do not have satisfactory management to handle the business of making and collecting loans now or in the near future. The societies have a bad reputation of losing the members' money, something most undesirable for a society making loans or accepting deposits." (15, p.16).

Both their location and their own internal problems make them dubious channels for the maize project, but there are lessons to be learned from their experiences.

It would be extremely useful to have a more detailed knowledge of how the Vihiga agricultural marketing structure operates. To what extent is the provision of inputs an integral part of the crop marketing arrangements? Are inputs already financed by credit against the maize crop? The Division is said to be a deficit area: as we pointed out in Section II additional marketing information would establish whether this is so. Are additional supplies channelled into the area? At what prices? When and where from? How are fertilisers supplied to the area at present? And so on.

THE ENVISAGED MARKETING STRUCTURE.

The eventual enlargement of the scheme to include very many more farmers (600 in 1972/73 and 6,000 eventually) is intended to be accompanied by the development of new cooperative societies (15, p.12). This proposal implicitly rejects the present marketing structure for this purpose, without seriously considering the reasons for which it is inadequate. The only justification for new cooperatives seems to be the usual textbook argument which presumes the instantaneous and cost-less creation of an efficiently managed and versatile structure providing credit, inputs, savings bank functions, crop storage and marketing services - all the services 'necessary' for the up-take of the production scheme which the farmers are unable to provide themselves. No attempt has been made to cost this proposal. It is

interesting to note that the principal comments made about the inadequacies of the present market structure relate to its poor performance as an instrument for the provision of the inputs under the maize production scheme, but as has been pointed out there is no evidence that the functions the marketing system was required to perform in this respect were commercially oriented in the first place.

In the absence of any critical evaluation of the existing marketing system it is not possible to assess the merits of the proposed new cooperative structure. The functions which it is expected to perform are comprehensive (15, p.14), but there is no indication of the steps necessary for the creation of such a structure, the resources that are required, and the management organisation necessary for its efficient operation. The proposal appears not to have benefitted from the experience of the coffee societies in Vihiga, and others elsewhere attempting to organise marketing and provision of credit and inputs on a cooperative basis. There is an implicit assumption that the injection of funds, and a small amount of supervision, from the A.F.C., is sufficient to engender a strong spirit of cooperation, and an unlimited supply of managerial talent from among the farmers themselves. The words of caution in an earlier donor report appear to have gone unheeded:

"For some reason developing countries are always excited by the idea (of cooperatives). Theoretically, they appear to be such a simple and practical solution to their problems. It is enough to look at their record. Even in countries where qualified managers are available and where farmers are sophisticated, it has not been good. ... The Vihiga Program makes reference to 'organising farmers' to do various things, but current evidence is that they resist this. Their past experience with such organisations as the Coffee Societies provide ample reason for them to be wary. The F.A.O. Fertiliser Program has had no success in organising groups in the Division to purchase fertiliser and maize seed. The reason for this needs further study before attempting to create marketing or purchasing cooperatives". (17, pp.37,38).

It is not, of course, assumed on an a priori basis that cooperatives are the wrong form of marketing organisation. The principal point of the argument is that too little attention has been devoted to the mechanisms involved in the creation of a completely new organisation, and that too little consideration has been given to the possibility that the development of the existing marketing structure, possibly including existing co-operatives, might provide a cheaper and more efficient alternative to the creation of a new one.

EXPERIMENTATION IN MARKETING.

Although the approach adopted to problems of marketing inputs and outputs has displayed certain novel features, none can be attributed directly to a desire to experiment. Indeed, the novel features appear to emanate from a reluctance to devote effort to the analysis of the existing institutional arrangements, and a reluctance to design the package in such a way as to involve the intricate system of suppliers and marketing intermediaries which appear to exist in Vihiga. Far from attempting to employ appropriate incentives to encourage the desired conduct and performance of these institutions, the adopted approach has been to regard them either as an adjunct of the extension services, to behave in accordance with Government direction (or, more correctly, expectation), or as redundant institutions, to be replaced at the earliest convenience by totally new structures to perform their functions.

(1) Inputs: It has already been pointed out that stockists of inputs were obliged to carry the burden of part of the credit extended to the producer, due to the administrative organisation of loan financing. They were also expected to stock the appropriate inputs, and charge uniform prices. They were expected to bear the risk of financial loss if the increase in demand for inputs did not materialise. The "experimentation" may therefore be identified as the dependence on the goodwill, rather than the commercial judgement, of the stockists in question. The economics of supplying inputs is nowhere analysed.

(2) Outputs: The lack of attention devoted to any analysis of the maize marketing system in Vihiga is regrettable as this could have firstly, quantified flows and prices necessary for planning purposes; and secondly, identified functions and performance of different types of intermediaries, and the kinds of obstacles which they encounter. In turn this could have led to the package being directed to a more appropriate group of producers, and to incentives being built into it to guarantee the supply of supporting services in the marketing field. Analysis of this area could have provided clear evidence as to the overall desirability of a maize programme in the first instance.

An explicit form of experimentation would of course be involved in the replacement of the existing marketing framework with some new cooperative body performing its functions. The trouble with this proposal is that it lacks any evaluation of its likely success on the basis of available managerial resources and expected levels of member discipline. It is an experiment insufficiently checked as to likely success or failure in the first place.

The adoption of a more experimental approach with regard to the use of the existing market structure is recommended. This could have two functions: firstly to indicate the most appropriate type of production programme required in Vihiga, and secondly to act as a commercial vehicle for bringing innovative packages to the producer. It has already been pointed out that the understanding of the present structure of the market in Vihiga is very limited. However, if this were to be improved, and the various intermediaries in marketing and input provision employed as a source of the requisite information on product and input flows - instead of relying, as so often happens, on the producer to provide all the necessary information - then it might become possible to talk more meaningfully about the "maize market" in Vihiga, and to identify opportunities to be exploited (such as marked differences in supply and demand conditions between areas within Vihiga leading to different recommendations regarding increased and decreased production of maize), or bottlenecks to be removed. A lack of storage facilities may be an important issue, and one in which existing intermediaries have a vested interest; possibly there is scope for longer-term loans to them for the provision of storage, the organisation of which could incorporate a producer credit scheme, if such were to be necessary following the emergence of a more rational price profile during the year.

In the same way as the maize credit scheme encourages producers to respond to the incentive of credit by adopting hybrid maize, the improvement of the various services offered by the intermediaries could be effected by the introduction of a system of incentives operating in their part of the market. The provision of credit to input stockists through the fertiliser market or the hybrid seed market could be a welcome development; its effects could be various: extension of credit to producers, improvement in the stocks of inputs available to the farmer, or cost reductions and improved efficiency in the distribution of these requisites are some of the possibilities. Indeed there may even be scope for trying out subsidised inputs to test the effects of the existing overall marketing organisation for fertilisers and seeds. It is also likely that any measures which heighten the degree of competition in the local market between intermediaries are likely to benefit the producer; on the other hand it might be possible to devise measures to bring about a reduction in the number of participants in this part of the market, and the amalgamation of particular functions (such as maize buying and input provision) in order to foster the development of normal trade credit, and in turn a more prosperous commercial component of the area which would be attractive to financial institutions. It may also be possible to explore experimental ways of bringing these functions closer to those of the Maize and Produce Board, whose involvement in Vihiga appears to be of peripheral importance at the moment.

A particularly simple development might be the organisation of the provision of market information to the producers and to the intermediaries; that a system of sorts exists is undeniable: reports of considerable amounts of maize being sold green from the field, and much early mature maize being taken to markets at some distance by taxi in 1971 suggests that there is already a fair flow of market information. The question concerns its adequacy.

The idea of involving the marketing and the input-supplying intermediaries is not altogether new; the local maize speculators have already been proposed as a group which could become the channel for credit offered by the K.F.A. (18). However, as long as the objective remains to increase the output of maize, it may be necessary to seriously question the compatibility of the three functions they are envisaged as performing - maize speculation, supplying fertiliser, and supplying credit. A substantial increase in the output of maize, brought about through increased adoption of hybrid maize and increased utilisation of fertiliser bought on credit, could upset the balance struck at the moment between the level of output and the speculative function. If there were no floor in the market, both the post-harvest price and the end-of-season price would fall - the former more than the latter if there was a shortage of storage facilities - and the speculative earnings would remain the same. But since there is a floor in the market made effective by the Maize and Produce Board purchasing maize when the price reaches the intervention level, the outcome might be a very much reduced turnover for the speculators, and a narrower price range throughout the season as the Board would be required to perform the storage and resale function provided by the speculators. Therefore if the Maize and Produce Board were to become of more importance in the maize market in Vihiga, it would be at the expense of the present maize speculators - they would therefore oppose this trend by refusing to encourage a substantial increase in maize output. The alternative would be that they would be forced to keep the price above the floor by competing with the Board for supplies, but this could lead them into an overbought position, the end-of-season price would reflect this (due to the need to find other markets at that time) and a drop in price would lead to a diminished economic performance by the speculators.

A further sensible experiment would be to identify the principal local and more distant markets for agricultural produce, to collect price information on a range of crops, those already grown in Vihiga and those not, and ascertain the extent to which there is an untapped market for Vihiga produce at these prices. This in turn implies an ability to evaluate the profitability to both the producer and the merchant of a particular line. There may well be opportunities to rationalise the organisation of these markets, even providing existing intermediaries with incentives to extend their functions beyond their present range.

RECOMMENDATIONS

There are many recommendations implicit in this report; only the most important are listed here. As far as Vihiga is concerned it would appear that those involved in the planning process are either out of touch with the principles and objectives of S.R.D.P., or too willing to relinquish control over the design of a project, leaving it to the donor. The need for outside financial assistance may well be pressing, but there is a clear divergence of interest between the Kenya Government in S.R.D.P. and the normal objectives of donors. As has been shown in the main body of the evaluation report, the essence of S.R.D.P. is to discover effective development strategies of wide application and minimal dependence on external resources through a process of experimentation. Donors, on the other hand, usually wish a project to be a successful development in its own right. A successful experiment may not be a successful development: the criteria of success are quite different. The former is judged by the amount which is learned about a given situation: the resources involved in it, the way in which it works, and, above all, the ways in which it can be changed in a given direction. The latter is not concerned with this knowledge per se but with the attainment of immediate goals such as increased output or incomes. It is vitally important that this distinction is borne in mind when considering the recommendations which follow.

1. It is recommended that the Vihiga experimental maize credit package be substantially modified in the light of the experience of the last two seasons before it is extended to more producers.

It is evident from the preceding sections of this report that at the moment the experimental design of the maize credit package leaves a lot to be desired; nevertheless the experience of the last two seasons can be made to yield much of value for the future. The components of a well-organised experiment should now be much clearer:

- (1) an understanding of the principal inter-relationships affecting the selected area - not simply the collection of a voluminous quantity of data, but an assessment of the resource base sufficient to suggest possible objectives and strategies for specific projects;
- (2) careful and precise specification of the ultimate and immediate objectives appropriate to the needs of the area;
- (3) careful and precise specification of the most appropriate strategy or strategies that can be expected to lead to the attainment of these objectives;

- (4) the formulation of the strategies as consistent experimental projects from which lessons can be learned;
- (5) a monitoring procedure to check on the experiment to:
 - (a) check during implementation that the understanding of the resource base, production and marketing processes is correct;
 - (b) check that the perception of the needs of the area is correct;
 - (c) check that the strategy is not modified in the course of implementation to the extent that it loses value as an experiment or becomes divorced from its original objectives;
 - (d) identify and effect the necessary "running repairs" to the project, in the light of the information collected under (a), (b), and (c).
- (6) collect and analyse the results of the experiment, and draw conclusions regarding the success or failure of the project in terms of the S.R.D.P. principles and objectives. (See Recommendation 5 below).

One of the most obvious practical problems is the extent to which the donor can be expected to co-operate in the modification of the project now that it has become apparent that the project is deficient in terms of the S.R.D.P. principles and objectives. It would be understandable if a donor resisted modification on the grounds that the project is already successful according to its own criteria (which might include criteria such as numbers of farmers receiving credit) and that a proposed change is likely to lead to a deterioration in performance according to its own criteria. If it were not possible to count on the willingness of the donor to co-operate in extensive revision of the project in line with the principles and objectives of S.R.D.P., then its future as an integral part of S.R.D.P. would be in jeopardy. It is not anticipated that this difficulty will arise with regard to the maize credit package, though detailed discussion will be required as to the specific manner in which the package is brought in line with S.R.D.P. aims. Specific recommendations need to emerge from deliberations involving the Government and the donor; here it is appropriate to elaborate upon the ways in which the project could be modified to make it more consistent with the objectives and principles of S.R.D.P.

A. The Objectives:

The maize package requires a more specific production objective, to replace the ill-defined "self-sufficiency in maize". For example the original spirit of the objective of the maize package was to increase the incomes of the existing low-income producers through improved maize husbandry and increased maize production. If the attempt is made to recapture this spirit and develop a specific objective for the project, the relationships between farm and non-farm income, between maize and other enterprises, and between production and marketing of the crop will all need to be considered. All of these affect resource availability and resource allocation decision-making. Resource use, production, and sale of output must all be facets of the objective.

B. The Strategy:

It follows from the above comments on the characteristics required in the objective that the chosen strategy (or strategies) should relate to the perceptions of resource bottlenecks among those producers to whom the project is directed. Doubt has been cast on the general validity of the "labour surplus" interpretation of the resource endowment of Vihiga; consequently a strategy of providing assistance for the purchase of material inputs may be frustrated by the lack of complementary labour. In the absence of more precise information on the nature of the bottlenecks it may be fruitful to experiment with various strategies representing different interpretations of producer resource constraints.

Either the strategy should remain as it is in broad outline, but attempts be made to identify those producers for whom credit and extension supervision are bottlenecks to hybrid maize production, i.e. producers for whom hybrid maize would be profitable and who have surplus labour resources coupled with a cash-flow problem and a lack of hybrid maize knowledge. At this moment it is not possible to tell how big this group might be (it might be quite small), but further analysis of the 600-farmer survey may assist here. If solutions were to be found to such problems as lack of security and ineffective distribution of material inputs, solutions which still satisfied the requirements of replicability on a larger scale, this would constitute an important breakthrough in the provision of producer credit.

Or alternative strategies could be designed for different types of resource constraint, such as extension unaccompanied by credit, further demonstrations of hybrid maize in appropriate places, producer group extension experiments, and various others. These could be compared with credit provision, and, if appropriate combined with credit provision if this ~~were~~ felt to increase the impact of any one of the other strategies.

Or the strategy of credit provision should be radically redirected to involve the commercial sector, and aim at the increased efficiency of input provision and maize marketing. The provision of financial assistance to the commercial sector might lead to the extension of credit to producers, as the customers of the intermediaries, but if it did not this need not constitute a deficiency if there was a concomitant improvement in the complementary services. It would also be an improvement if the fertiliser wholesalers (presumably the K.F.A.) were drawn into the scheme, to ensure that the question of the availability of appropriate supplies is thoroughly examined, in the light of the relative costs of different types and packagings. The extension input could still be directed to those producers who are likely to derive benefit from it.

It is vitally important that if encouragement is to be given to the commercial sector it must be consistent with their interpretation of the market and their own objectives. However, since they are dependent on the agricultural sector for their own livelihood, it should not be impossible to design a scheme in such a way as would provide for the improvement of both producers' and intermediaries' economic welfare.

2. It is recommended that serious attention be given to the identification of new projects for inclusion in the Vihiga programme for different groups of farmers.

The interpretation of the resource endowment of Vihiga contained in Section II of this report - in particular the stated need to increase returns to labour as well as to land, the need to cater for the differing requirements of the various types of farming groups in the Division, and the prospect of encouraging some degree of specialisation - should be used as a starting point. In this regard it will be valuable to analyse further the results of the 600-farmer survey, and possibly to supplement it, in order to illuminate the nature of the agricultural structure of Vihiga. The target should be the construction of a realistic stratification of farm types for which different programmes will be needed. The next step should then be to devise suitable programmes for the different groups; the starting point for this should be farm profitability estimates appropriate to each of the different farm types, and consultation with technical specialists who may suggest new products.

It should be stressed that this is not a recommendation to shift the emphasis from maize to one of the other 23 or so items in the original Outline Programme, but rather a suggestion that consideration should be given to new products and projects not hitherto considered in the Vihiga context.

3. It is recommended that great care be taken in the specification of the objectives, both ultimate and immediate, of every project considered for inclusion in the Vihiga programme, and that great care be taken to ensure that every project conforms to S.R.D.P. principles.

Firstly, the need for this is particularly marked with respect to new projects not yet included in the programme because their content and design depend on the choice of objectives. Secondly, the objectives of existing projects should also be reviewed in the light of the experience with the maize credit package. It might be worth asking relevant variations of the question "How much of What is to be produced by Whom and sold to Whom at What prices, leaving What level of profit or net income?" of each production project. A standard procedure should be determined so that there is no possibility that a project with virtually unspecified objectives reaches the implementation stage. Similar care should be taken to ensure that the project conforms with S.R.D.P. principles at every stage.

4. It is recommended that in planning the programme a longer view embracing the integrated nature of the projects be taken, as well as a short view of their objectives.

With the Vihiga maize credit package it is very unclear what the long-run perspective is; some consideration of the longer run evolution of the programme, and the development of the area after the termination of the programme, should be included in the process of planning. This is another way of saying that the ultimate objectives of the programme must be shown to be "organically" related to the immediate objectives of each of the constituent projects of the programme.

5. It is recommended that a procedure for continuous evaluation capable of precipitating action where necessary be developed:

Such a monitoring system as sketched out already under recommendation (1) is recommended for several reasons. First, it appears that during the planning process the original project can be changed out of all recognition, so that by the time that it is ready for implementation it no longer serves the objectives for which it was designed; this happened to the maize credit package.

Second, information and experience gained during the early years of implementation provides a valuable basis for improvement; it should be possible to modify a project, or a programme, quite drastically in the light of experience. In Vihiga the information was available to permit fundamental modifications of the credit package following the first year of its implementation. Third, conditions themselves change, and by the time a project gets under way more attractive alternatives may have become available.

For these, and other reasons, continuous evaluation should be used to contribute to the successful development of the programme.

6. It is recommended that where technical (e.g. agronomic) information is required close liaison be developed with specialist institutions.

It has been pointed out earlier in this report that there appeared to be room for improvement in the technical recommendations. With specific reference to maize the Kitale research station staff should be requested to visit Vihiga to conduct a more precise technical assessment of potential for maize, and develop more precise technical recommendations. At the same time, however, the prospect of conflict between technical and economic efficiency should be borne in mind in the undertaking of such an exercise. Specialists should also be brought in to discuss selection of new projects, to solve technical problems, and so on.

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LOCAL INVOLVEMENT IN THE SPECIAL RURAL DEVELOPMENT PROGRAMME

by

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INTRODUCTION

THE RATIONALE FOR INVOLVEMENT

Satisfactory levels of rural development can be achieved without "people-involvement". This has been exemplified in the United States and Canada, where the developer takes a couple of hundred acres which have been deserted by migrants to the cities, runs machines over them, and comes out with a few thousand bags of wheat. Whatever we may think of this model of "rural development" it is hardly feasible in independent Kenya, 1972. If there are people on the land and you plan to develop it without evicting them they are inevitably involved, at least in the end result. But men are not machines and they will also involve themselves in the process of development one way or the other. Thus, unless they are purposefully involved by the planners, they can easily sabotage it, through:

1. miscomprehension of the use or maintenance of a new structure, e.g. of the need to bring all cattle weekly to the new dips;
2. suspicion of the motives of the developers, e.g. reluctance to stake their lands against loans for inputs to start new crops for fear of a plot to steal those lands;
3. opposition to the aims of the projects or to even minor aspects of them, e.g. a Muslim community told to raise pigs to supplement their diets.
4. development of total dependency, i.e. of apathy and expectation that government will do everything, including maintenance.

Without local consultation, the developers can also sabotage their own work through:

1. planning with insufficient data, e.g. planning for a district - wide stockmarketing programme on the basis of a short survey of cattle in an aberrantly overstocked sublocation;
2. failure to anticipate local resistance as illustrated above and to move to correct it, e.g. assuming that people will welcome the idea of a marketing cooperative and have enough organisational skills to carry it on after several years' support although the programme does not provide for local training in such skills.
3. failure to fully mobilize local potential - creative ideas, labour for implementation and maintenance, skills and tools, etc. - e.g. retarding a roads programme because of high labour costs based on wage rates three or four times what local labour expects

to be paid, or costs for work which locals would be willing to do voluntarily in order to get the roads.

Sudden development efforts by external developers often raise unrealistic expectations, which are inevitably dashed, leading to local suspicion of the whole effort. Local involvement in planning and implementation dampens these unrealistic hopes as they arise by making clear to the people the constraints of time, labour, money, and other resources which impede local and national development.

In Kenya, the Harambee movement has proved that local people - ranging from a few villagers to many - can organise themselves to advance their own development in significant ways. Local interest groups - from coffee cooperatives to clan advancement leagues and women's handicraft groups - have the motivation and discipline to select projects, commit resources, and carry them out on a massive scale never dreamt of under the old colonial administration.

LOCAL INVOLVEMENT AND SRDP

Maximizing local involvement in SRDP should aim at three objectives: (1) success of the SRDP projects, whatever they may be, through maximum useful local assistance and information; (2) integration of the local self-help efforts with the national goals, without killing local incentive and enthusiasm; and (3) training of local leaders and their groups in improved methods of planning to produce continuing integrated development consistent with the constraints of local resources.

"Local people" is herein taken to mean resident non-officials and low-level indigenous staff at sublocation and occasionally locational levels. Attention is focussed on "local interest groups", local people who have organised around a common factor - Harambee committees, Maendeleo ya Wanawake groups, high school students' associations, indigenous age sex work groups, kinship-based improvement societies, village committees, locational councils, or other functional committees (e.g. church, school). It is believed that these groups have the greatest potential for discussion, planning, and implementation in their own spheres at the local level. It is also maintained that the higher the level at which a local leader operates, the less he knows of his constituents. The district head of an organization is usually elected as a result of compromises and thus seldom can clearly represent an issue; he also moves within the district elite circles and loses contact with the non-elite.

SRDP planners are expected to make their own plans, but also to consult sufficiently with low-level local leaders to ensure that local constraints - either resources or popular opposition - can be overcome. (An additional benefit of this process is that the leaders will inevitably add local refinements to the plans which will increase their chances of success.) Once SRDP has been given open publicity, submission of locally-initiated plans for either SRDP/local/combined implementation should be encouraged for consideration by SRDP planners. The SRDP-cum-district group and the local groups should work on their separate plans and criticize and improve each others', the SRDP staff should decide where their activities will merge; and local and SRDP groups should work together on implementation of a project. Minimization of external inputs and consequent replication elsewhere can only be made possible through constant bias towards local consultation, planning training, and implementation. And only through this bias can SRDP create an area that will continue to develop when the special staff and inputs have been removed.

A SCHEME OF INVOLVEMENT, WITH ALTERNATIVES

The following four phases of activity may be isolated from the flow of SRDP: pre-planning, planning, implementation, and evaluation. In reality after the first few months a little of each activity should be proceeding simultaneously, but for each project the phases should be discrete (with re-planning following evaluation in many cases).

Two-way information transfer continues throughout, but in two discrete phases. In the past initial publicity about SRDP has occurred before anything else. This is a tactical error, since the delay between SRDP announcements and implementation has usually brought about a hardening of staff and local prejudices about the promised projects, a spreading of rumours, and disillusionment with the SRDP potential. Pre-planning and initial planning exercises should occur without publicity or Government commitment. After initial data gathering, leaders of local interest groups should be invited to seminars for training in methods of planning, and for consultation about the possibility of Government aid to local projects if they are well presented. Initial planning by local groups should then continue on the basis of these possibilities. After enough plans have been presented, vetted by local people and SRDP staff, accepted, and have secured allocation of Ministry funds, then a public announcement can be made with the usual fanfare, followed immediately by implementation of various projects. After this public commitment of funds to special local development a second phase of information transfer begins.

Below are discussed the place of local involvement in each phase, the shape it should take, and the benefits it brings. Information transfer is crucial to much of the process and is thus discussed in detail at the end. This section forms a frame of reference against which the actual area performances are discussed in Part II.

1. Pre-planning, i.e., the gathering and analysis of data and identification of ~~feasibilities~~ for each area. Such collection of information should involve the local people to a great extent. At present even junior officials associate more with the elite of their area and draw their impressions of local wealth and potential from them (for an example see the Tetu paper on extension selection procedures), and as socio-economic surveys of rural areas are scarce this limits the base on which data and impressions are collected. Thus the first priority of SRDP must be a random household survey of the total population, to gain a true picture of area resources and subareal variations. This could be carried out by JAAs, with strict sampling instructions and a few days training.

SRDP planners should ~~depend~~ heavily on local opinions for identification of ~~feasibilities~~. One of the items surveyed by the JAAs could be spot reactions to a list of tentative projects, to discover which of them local people have strong feelings about, one way or the other. But, most importantly, local low-level staff and ~~leaders~~ of local interest groups (c.f. Information Transfer) should be consulted to determine local needs and priorities and to get more detailed local assessments of the chances of the tentative projects. Some local opposition, if known, can be dissuaded by appropriate arguments in public forum; some may require scrapping of otherwise appealing ideas lest the whole programme suffer.

2. Planning, i.e., the identification of project and ~~goal~~ alternatives and priorities, of available resources, and of major resource constraints. In this phase every possible local group - Locational and Divisional Development Committees, Country and Area Councils, subchiefs' barazas, self-help groups, cooperatives, market committees, churches, womens' groups, etc. - should be invited to extend the list of proposals already made by the SRDP planners and to debate drawbacks, benefits, and priorities. Leaders of each group should send in reports and these should be summarized, circulated among SRDP planners, and sent back to the local groups, so that the latter will realise the conflicts and try to resolve them in Development Committees or barazas. The effects of this are the provision of

practical local training in the development of criteria for choice between projects (enabling future non-SRDP development), open commitment by local people to the projects chosen, and specification and commitment of local resources to the projects. The presence of government experts (Livestock, Veterinary, Agricultural, Health, etc, Officers) is essential, especially at the early stages of debate, to point out defects in a plan before commitment goes too far. This could be achieved by announcing their availability for consultation to leadership seminars and barazas. All officers should come to seminars and introductory chiefs' barazas and give brief descriptions and examples of the relevance of their expertise (e.g., without proper disease control a cattle marketing scheme will not work) to motivate local groups interested in a project in their field. In the final case, SRDP must decide which of the local projects it will support or execute itself, and with which it will merely avoid interfering.

Specific planning of SRDP projects must also involve local low-level staff. These people have a valuable contribution to make, provided the problems are presented to them in a sufficiently specific format. They are the experts on the degree of agricultural, health, market-rules knowledge and knowledge-application among different sectors of the local population. They have a more general view of their speciality than local laymen and a more area-specific view than Nairobi or Provincial bosses. And they are willing to put much more effort into a project which they have helped to plan than ^{into} one wished on them by their superiors.

3. Implementation, monitoring, and maintenance. Involvement in this phase is through whatever local inputs have been decided on in the previous phase. The more the local inputs, the lower the cost to Government, the greater the capability of the local people to maintain the established structures, and the greater the local commitment to make full use of the structures. But failure to include people in planning and to present comprehensive information to the people about the function of a project cannot be redeemed by local labour "participation" at this stage.

Local inputs are self-help groups (and coordinating sub-chiefs and chiefs), hired local labour (skilled/unskilled), borrowed or rented tools (tractors, mules, lorries, brick-making devices), cash contributions, and local consultants (c.f. planning phase). Hired labour (a) reduces (by its cost) the number of people who can participate,

and (b) raises external inputs (Government costs). Self-help labour (a) lacks special skills, and (b) runs the risk of being over-allocated on the assumption that the supply is infinite (this applies to all local contributions). Over-allocation in the face of the protests of strained local people can destroy an area's self-help movement for years.

The relationship between SRDP and on-going self-help projects deserves consideration. Sometimes project x in area y - e.g. dips or water - has already gained a workable momentum before SRDP enters, and any interference with it is a waste of SRDP resources, besides risking decreasing rather than increasing project momentum. SRDP must be idea-intensive in its relationship with the Harambee movement, creating new types of projects or improving the efficiency of old ideas that are failing, rather than aiding old projects which are continuing successfully or which have already reached their appropriate goals. (See Case Study on Tetu in our report for more specific recommendations).

Under the Kenyan system the only Department responsible for **integrated development** on the sub-divisional level is the Community Development Department. The CDO/CDA is basically a registrar of projects and a liaison agent between small - and medium-scale self-help groups and other Ministries' experts and funding agencies. Some CDOs discuss local wants and what to do about them with local people informally and formally. The CDO is less important under the SRDP involvement plan as outlined here, since there are many other channels of communication and discussion. But when SRDP leaves or plans break down, the CDO is the person specifically assigned to continue the two-way flow of communication and to superintend, encourage, and co-ordinate the self-help development effort. Thus his position under SRDP should be upheld rather than undermined.

Monitoring and maintenance are an essential follow-up to implementation, but are often ignored by planners. If a dip is built no one worries - for a while - whether it is being used properly, or is falling apart. Either low-level local staff or leaders of the relevant groups must monitor the use of the structures and call in repair crews (or repair it themselves) when parts start to break, erode, or rust. But even where a plan calls specifically for local maintenance - e.g. of Migori roads - no one has given thought to how to achieve this. The local group must commit itself to monitoring and maintenance in full knowledge of the processes and time it entails, and they must know

where to go for help in extraordinary cases such as when delivery of dip fluid stops, or a gully too deep for local tools to fix develops in a road. Some kind of reporting system must be established - e.g., the local water - pipe leader reports the state of the line and pump to the Locational Development Committee once a month. Kenyan Harambee groups have generally not been involved in routine maintenance, but that does not mean they cannot be.

4. Evaluation: once a year, each local group which was active in planning, or which has surfaced as important since, should be invited to write a report on its opinion of programme implementation to date - what has or has not gone according to schedule and why, what has failed to be done or to be used once finished, what **planned** projects they think should be revised, eliminated, speeded up, etc. These reports should be summarized and spread through the information channels, and further feedback based on them encouraged **at** meetings and through revised group reports. A final summary report should be called for in the reporting system. This process will lead to a better on-going SRDP programme, to a more precise understanding by the local people of the development process and generation of internal development impetus beyond the 5-year plan, and to increased self-reliance in the rural communities.

5. Information Transfer. SRDP should experiment with various channels of communication, always bearing in mind that the second most important aim (after pure information to public) is to stimulate return information from local sources. Some of the channels listed below are inherently two-way (a - d, j and k) and some can easily accommodate local individual comments (e and g). The channels are divided into two groups: the first three are usable **throughout** SRDP (and after) and the rest only after initial public announcement of SRDP in an area. The **basic** objective is to reach all the people - old men, youths, isolated farm workers, illiterates, and all.

The following are non-public channels:

a) Development Committees permit more intensive discussion of overall SRDP plans with SRDP staff, and continue during and after SRDP to co-ordinate local self-help efforts. But even lay members of the District Development Committees are unlikely to be in touch with local non-elite aspirations. One way to get around this is to build up the DDCs from a hierarchy of sub-locational, locational, and divisional committees, each group selecting members to serve on

the higher body and providing it with suggestions. A permanent sub-locational body seems to be unnecessary, as sub-locational barazas meet frequently and with little inconvenience to the farmers.

Another way would be to scrap the District committees and require the proposed new District Development Officers to attend Locational and Divisional Development Committee meetings (and to help the CDO to create or reactivate the committees where they do not meet) and co-ordinate their plans in a district framework.

(b) Leadership seminars and training have an inherent defect, in that the identity of the leaders is specified by SRDP, but with careful identification of local interest groups this can be overcome. This forum provides a more formal training in methods of planning and constraints and benefits of specific project types to key local people, but it is necessary to guard against its tendency to minimise discussion. Local interest group leaders should form a firmer base for compromise between interests than consultation of elected general leaders who are already the result of election compromises.

(c) Opinion leaders' consultative committees are an informal structure, existing as a list, in the SRDP offices, of people to contact if a quick check on local reality or opinion is needed. Membership would encompass those in the leadership seminars and possibly go beyond it, to include, for example, leaders from urban workers' groups.

The following are public channels:

(d) The baraza has gained a bad reputation at the grass-roots level in several areas of the country, but is still useful for transferring information. The sub-chief's baraza has usually been a forum for earnest discussion of plans and rectification of complaints, but the chief's baraza is usually addressed only by recognized local leaders, and at the Divisional/District levels the only local participation is to sit in the hot sun and clap when visiting dignitaries have finished lecturing in a strange language. SRDP barazas should be held at the locational level; there are too many sub-locations for SRDP staff to visit all of them on a regular basis, and a Divisional baraza is too big and allows no chance for non-leader participation. Baraza moderators (the chiefs/SRDP head) should be convinced of the need for discussion and compromise between the aspirations and constraints of different groups and projects. Baraza leaders should concentrate on information transfer from SRDP and amongst local groups, and on identifying new emergent interest groups. Optimally, the original chiefs' meetings after the first public announcement should be held at the beginning of the

least busy agricultural season, followed by sub-location meetings continuing the discussion.

(e) Radio cannot be isolated to the SRDP area, ^{and} is limited by the number of radios in the area, and by the uncertainty of tuning in at the correct time of day for the programme. Thus, if it is to be used, it should convey information of general rural interest which can be detailed within a fifteen-to-thirty minute programme and repeated several times during the month; for instance, an exposition of required dip strengths and the consequences of failure to maintain them, or a description of a new marketing outlet for handicrafts in Nairobi which will send out an agent if written to by an interested crafts group.

(f) Mobile cinema is limited by the expense of producing cinema programmes for a limited circulation. Its advantages are visual impact and probably a larger audience within the area (presuming it is well publicised). Cinema audience peculiarities should be noted, e.g., in some areas women are not supposed to go out at night. The cinema should be used for teaching about all aspects of a project in the hope that if it works, that is the people carry out their part of the project better than before, the film can be exported outside the SRDP area. One problem with visual media is that, since the actors and scenery should be local for maximum impact, its effect diminishes and even warps as a film is moved farther from the home area. The teaching benefits of a film should be weighed against its costs and the probable range of impact. To avoid blunders about cultural symbols in all the media (e) through (i), locals should be involved in planning films, programmes, article wording, etc., as well as in acting, speaking, being interviewed, etc.

(g) A local newsheet allows a near-simultaneous exposure to a wide variety of projects and plans and so furthers popular recognition of the need to choose between projects in planning. A newsheet is always available for reading but a radio must be listened to at a set time, daily/weekly. A newsheet can be truly local. Finally, the written word is often found to be more influential than the spoken one.

Low levels of literacy are found in the same areas as low levels of radio ownership. In the 1968 SRDP baseline survey, literacy was more prevalent than weekly radio-listening in all 6 areas, and newspaper-reading more than or approximately equal to radio-listening. It is our contention that newspaper-reading (or being read to) will rise significantly if a local newspaper is available. That newspaper-reading equals or surpasses radio-listening when the only newspapers are urban-

oriented, non-vernacular, and hard to obtain in rural areas indicates the power a local paper could have.

The newsheet need not be more than two to four pages issued bi-monthly and pinned to a tree or shop in a central place in each village. It should include occasional articles by SRDP or other Ministry staff, but should primarily contain articles by local leaders - from chiefs to village committee heads to womens' leaders - describing the overall progress of their constituencies and making any suggestions they would like discussed. Supplies and personnel would involve mimeograph machine, paper and ink, and the part-time services of a typist and someone trained (even if only for two weeks) in composition and editing skills - perhaps a special DO's clerk. The paper would have to be published in the major local languages, one or two in each area.

(h) Posters and leaflets are unique-purpose versions of the newsheet, and use the same resources. They aim at a smaller group or single project, and theoretically provide greater impact on either.

(i) Visual aids, if used creatively, can be highly valuable in motivating and training illiterates, semi-literates, and even literates. "One picture is worth a thousand words" but it has to be the right picture. There are three major forms of static visual model: (1) the simple drawing, (2) the photograph or complex drawing, and (3) the three - dimensional model. Each holds possibilities of violating local sensitivities through improper use of a cultural symbol, e.g. depicting friendship by two people embracing in what locals consider an obscene manner. The meaning of the simple drawing is the most quickly conveyed; the 3-D model attracts the most prolonged attention and can be the most overpowering, but also holds the most possibilities for unintentional symbol violation if local people are not consulted in creating it. An example of the simplest 3-D model is a small-scale stick model of a house and farm; of the most complex, a real-life demonstration farm.

(j) Discussion in schools, can be carried out by teachers and visiting officials to train pupils in planning principles useful to them in the future (and possibly communicable to parents), and to pass on information to parents about specific projects. Agriculture classes, health education classes, or general assemblies can serve as forums.

(k) Discussion at meeting places - markets, schools, hospitals and health centres, dip days, cooperative pay-outs, FTC courses, etc. - can involve people not otherwise reached through the above channels or

draw special attention to the connection between SRDP and the activity for which they are gathered at the time.

CASE STUDIES

This section attempts to present how these concepts have been operationalized in the SRDP areas. The discussion of each area confronts a different problem. In Tetu data was collected through questionnaires and extraction of relevant information from official files. In the other sites researchers contacted a number of non-official key informants, used a wider and looser format for interview, and observed in the area. Key informants were selected from categories of progressive farmers, chiefs and sub-chiefs, heads of development committees and self-help groups, large traders, and leaders of cooperatives. In Kwale, an additional sampling of ordinary farmers was made. The descriptions below must be read while remembering that they are the perceptions of the people interviewed. If most people interviewed said that SRDP in their area had nothing to do with dip building, this belief is taken as fact, even although it may be mistaken. The belief rather than the actuality is what we are interested in discussing in such a case.

TETU

The Tetu data for this report was collected in a controlled experimental design to answer the question: to what extent is SRDP affecting incidence and type of development projects in an area? Key informants were interviewed and official files analysed to provide lists of all projects found in a random sample of sub-locations (over half) in Tetu and two neighbouring Divisions - Mathira and Othaya. We focussed specifically on self-help as the most obvious form of locally generated involvement in development.

The self-help movement has been vigorous in these areas for many years. Mathira has had 201 projects in eleven sub-locations up to the end of 1971, Tetu 193 in thirteen sub-locations, and Othaya 110

in eight. Mathira shows the greatest variety and innovativeness in purposes of groups - water tank and pullover buyers, men's houses, etc. - but Tetu groups have adhered more to the economically or communally related projects such as tea picking and pig-rearing groups, a social hall, and bridges.

The evaluation report on Tetu SRDP pilot extension project (Appendix E) exemplifies involvement of the local staff, at various stages.

Number of Self-help Groups:

The advent of SRDP in Tetu has coincided with a decline in numbers of new self-help groups. Before 1968 77 projects had been started, and in the next two years there were 65, but 1970 saw only 22, rising to 29 in 1971. From 1968/69 to 1970/71, the number of new water, nursery school, and women's groups (the latter involved in better-homes construction) declined sharply, and number of churches and dips rose to a somewhat lesser extent. Four medical centres were added in those two years where none existed before, and the number of new dips and churches almost doubled. But only one water project and one women's group were added to the large number of earlier projects.

In Mathira, at the same time, from a base of 76 projects registered up to 1967, 65 were added in a two year period 1968/69, rising to 38 in 1970 and then declining to 22 in 1971. Water projects increased sharply between the two-year periods (1968-69 and 1970-71), while primary and nursery schools declined greatly, with dips somewhat less.

In Othaya the growth in numbers of projects was constant through 1970, and then dropped drastically in 1971. New schools, water, womens' groups and dips declined, and only new bridge projects increased.

Effect of SRDP on Specific Projects:

Using Mathira and Othaya as controls, we can deduce something of the influence of SRDP. Tetu had 33 dip projects by the end of 1971, Mathira 20, and Othaya 11, thus indicating that the rise in Tetu projects concomitant with the Mathira-Othaya decline was not due to an earlier start in dips in those areas. This suggests that the dip-encouragement project is having an effect. But whether this was an efficient use of SRDP - whether the need so man- dips (33 in 13

The number of water projects in Tetu has declined while that in Mathira has risen. SRDP has only taken over the older projects in this area, a takeover which is sometimes nominal (all external contributions supplied by UNICEF, etc.), and sometimes a replacement of earlier committed donors by SRDP.

SRDP in Tetu - and in other areas - is "integrating itself into on-going programmes" too well in the area of self-help. Before adopting an on-going self-help project (such as dips) the planners should stop to consider: (1) is this project already well enough accepted locally so that it can reach its desired goals without our help? (2) has it perhaps already reached the desired goal? (3) are the funding sources, sources of needed skills, and local understanding of the maintenance process good/efficient enough so that our interference will not improve them? and (4) will locals regard Government takeover as a sign to cease their own contributions? If the answers to these questions are "yes", SRDP should not become involved in the project. And, after helping old projects in the ways noted above, SRDP's role with respect to self-help should surely be an idea-intensive one. Publicity and advice should be given to small projects that seem to fit into the SRDP goals (such as pig-raising groups), and possibly they should publicize projects from other areas or other countries ~~in the~~ hope that local groups will be formed to pursue them. Success and failure (and reasons why) of such projects should be publicized in the area so that each village will learn from others' experience. Such an experimental programme is cheap and if considered a success can be easily replicated elsewhere. It depends primarily on an active Community Development staff and the use of media as outlined in the section on "Information Transfer". There is adequate baseline data in Community Development Files to allow it to be evaluated under the SRDP principle of experimentation.

Effect of SRDP on ^{the} Variety of Projects and the Harambee Spirit:

The 1970/71 decline in Tetu in incidence and variety of total projects, and especially in the incidence of new small-scale projects (nursery schools, women's home-improvement groups, miscellaneous farming and small stock-keeping groups, etc.) leads us to suspect that the grass-roots self-help movement there has lost impetus. The same thing may have happened in 1971 in Mathira and Othaya.

The Area Coordinator remarked that self-help in Tetu has been overtaxed by the large number of Harambee projects pushed by aspiring politicians in the last few years, e.g. the huge hospitals, reticulated water schemes, and new technical institutes. These are piled on top of

an already keen competition among sub-chiefs and chiefs to have the greatest number of mini-projects in their own areas. Poor farmers can only contribute a limited amount to development, but the politicians do not recognise this local problem in their struggle for national recognition. Field workers report that there are in fact a number of new self-help groups forming in these areas, but they are avoiding registration so that their project is not expanded by politicians or administrators beyond what they can afford.

This is a serious situation, and SRDP in Tetu should experiment with ways to rectify it, since it is occurring and will continue to occur in other parts of Kenya as well (already the newspapers are full of reports of similar problems with respect to the Coast). The only effective solution to a problem of this type is an on-going planning board (Development Committee) for (predominantly) non-politicians at the Locational and Divisional levels, with regular consultation with the sub-chiefs' and chiefs' barazas, ^{and} with the authority to set priorities for projects above sublocation level. For example, if the Divisional Development Committee vetoes an MP's pet idea he can take it to a chief's meeting to have it restored, but the existence of a DDC veto will keep people from feeling they will be called traitors if they vote against the idea.

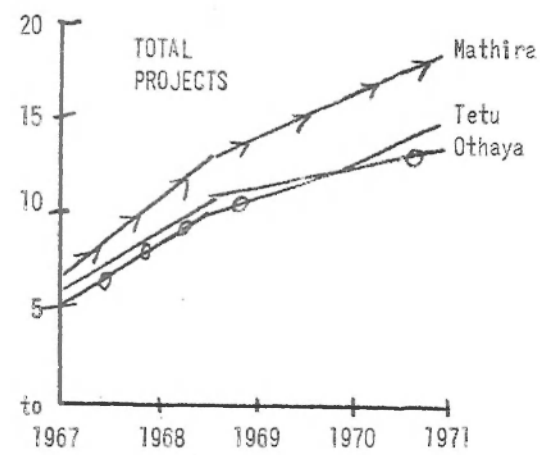
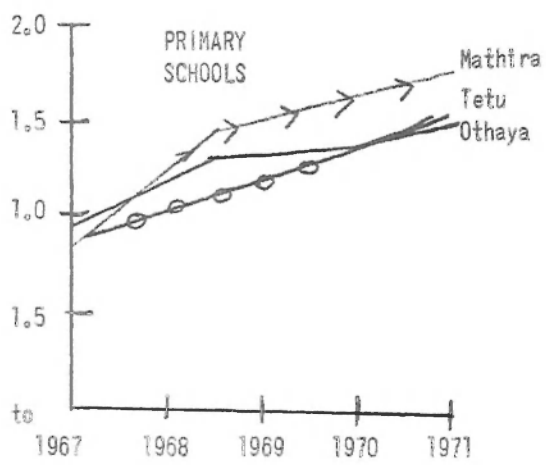
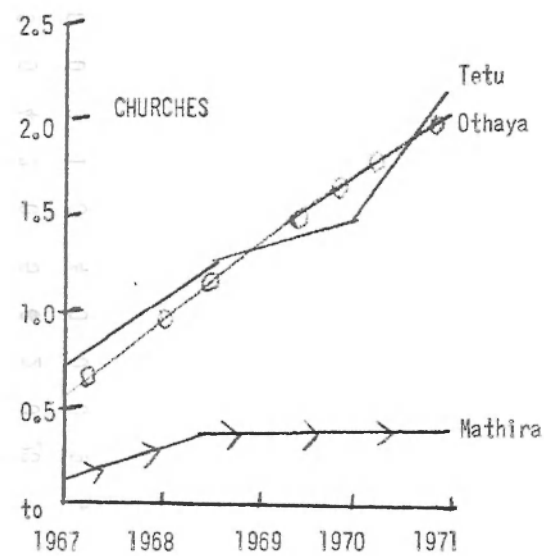
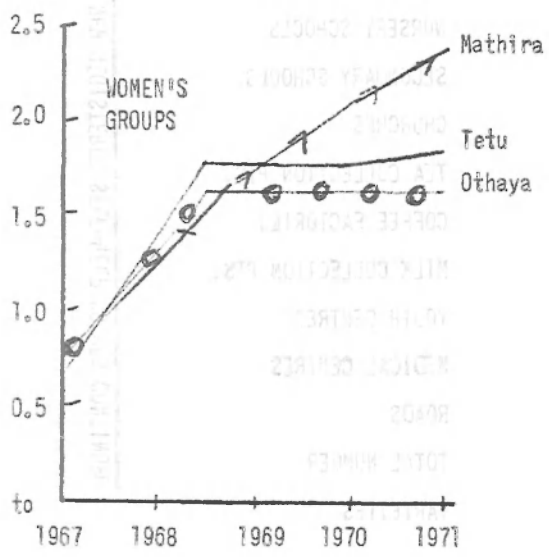
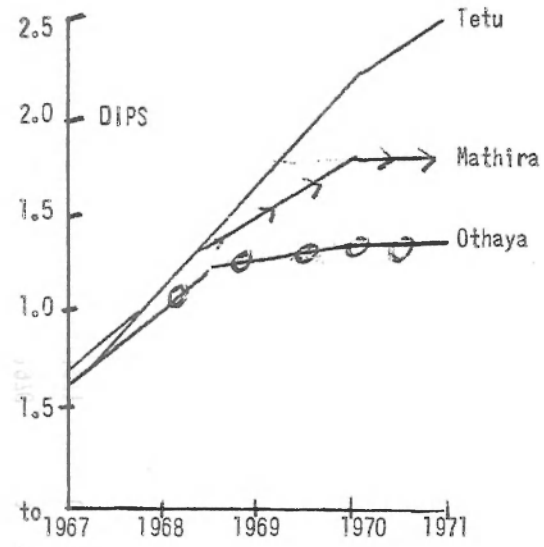
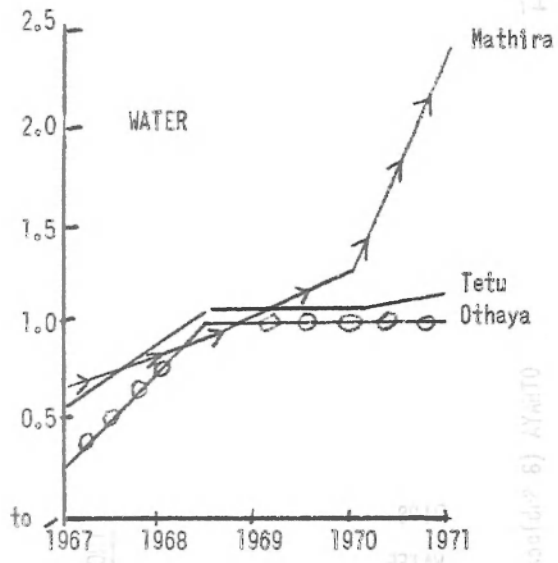
As yet there is no Development Committee in Tetu below District level, and the SRDP meetings held for or by the chiefs only told them and their people what was going to happen and what they would have to do. The fact that there is no SRDP money yet released except for staff and a few water projects only increases the local feeling that they are being overtaxed once again for another list of overambitious development projects.

G - 17

INCIDENCE OF NEW REGISTERED SELF-HELP GROUPS CONTINUED

OTHAYA (8 Sublocations)		
To 1967	5 2 6 7 8 3 4 2 1 1 1 1 0 0 0 40 11	DIPS
1968/69	5 6 7 2 7 1 5 6 1 0 0 0 1 4 1 41 10	WATER
1970	1 0 0 2 3 0 4 3 0 5 0 2 0 20 7	WOMEN'S GROUPS
1971	0 0 0 1 0 0 3 1 0 4 0 0 0 9 4	PRIMARY SCHOOLS
		NURSERY SCHOOLS
		SECONDARY SCHOOLS
		CHURCHES
		TEA COLLECTION PTS.
		COFFEE FACTORIES
		MILK COLLECTION PTS.
		YOUTH CENTRES
		MEDICAL CENTRES
		ROADS
		TOTAL NUMBER
		VARIETIES

NUMBER OF SOCIAL SERVICE PROJECTS PER U.L.C.A. BY DIVISION



The Vihiga programme demonstrates some of SRDP's weaknesses with respect to people-involvement. The first news non-Government people received of the programme was as in other SRDP areas at an introductory baraza held by the PC, at which they were told SRDP was coming to raise their incomes and increase their opportunities for employment. As in other SRDP areas, a long period of inactivity followed, during which people plied their local extension agents with questions, and officials came around to urge people to contribute to dips, without explaining what Government would contribute in return. On a higher level, however, Provincial, District, and a few Divisional staff were involved in making plans and trying to find out where the funds would come from. At first chiefs (and MPs?) were excluded from the Planning Committee; but were later admitted. The establishment of such a Committee is ~~unavoidable~~. However, during the present combined planning - and - implementation period, the Locational and Divisional Development Committees and County and Area Councils are avoided by the Area Coordinator, who prefers instead to link up with self-help projects through the chiefs. The weakness of this linkage in the past has caused widespread failure of projects in the western section of Vihiga.

At the introductory baraza the people were promised incomes and employment. Aside from the long delay between the promises and the beginning of activities, when projects finally started they were apparently not concerned with incomes and employment, according to local definition. Hybrid maize, MOW-built roads, a WDD-built water project, and grade cattle may be defined as raising income and employment by Nairobi

and may do so in the long-term, but in local eyes the agricultural programme only raises home consumption and the others, while making life more pleasant, do not raise cash income. Employment of local people on the projects might change their minds. So might the various cash crop (and cash stock) schemes being considered for later stages but not yet announced to non-Government people. It might be useful to hold seminars on the concept of cash versus total income, to establish whether the local people really want cash above all else when it is explained to them.

A serious problem is the great amount of publicity given to the Vihiga programme both nationally and internationally. Vihiga residents and migrants read these articles and compare them with reality. Even if the Vihiga programme was going exceedingly well it could not compare with the panegyrics written about it. The comparison impairs any confidence the local people may have in the programme as a valid attempt to develop their area.

If there had been a greater emphasis on local communication, the maize credit package which is the centre of SRDP activity might have been substantially modified. At present it does not satisfy those eligible for it. Several first-year loanees did not reapply; there are perceived conflicts between the repayment of cash loans and the perceived purpose of maize as a subsistence crop only; and local stockists are extremely unhappy with their role. Neither farmers nor market committees have been consulted by the project planners. (Consult the report by Hay and Heyer, Appendix F for further discussion of the maize credit package.)

There seems to have been a great deal of apathy and/or bad feeling connected with Government. In the popular view, original SRDP promises were broken as to time-table, income, and employment. The self-help movement in the past has not been properly controlled, too many unstaffable schools and health centres were built, and local opinion blames Government and local self-help leaders for this breakage of promises Government never made but politicians assumed. The situation has somewhat improved recently with a better record in respect to dips and water schemes, for which funding agencies (UNICEF, SIDA, CDD) have always provided materials within a reasonable length of time. Self-help should now have sufficiently revived to be useful in other SRDP projects (such as roads, cooperative share-the-risk new stock/crop ventures, etc.) if only they will be proposed, and particularly if the people are allowed a voice in deciding on the types and choice of projects to be initiated. But at present farmers, traders, cooperative heads, Councillors, teachers, all seem to regard the dips, water, and minimal hybrid credit projects as the most they will ever get out of SRDP.

Vihiga self-help is composed of a number of temporary structures. Instead of permanent bodies accepting and co-ordinating suggestions, as in Migori, there are a number of committees for special projects. If an idea is presented by an official or a local person at a baraza, it is discussed and, if accepted, a committee is elected for it. The only common element seems to be the sub-chief, who is usually on every sublocational committee. His role is to legitimise and enforce the collection of funds from unwilling individuals; the less the plan has been discussed before at the baraza the more of these individuals there will be, and the more unsavoury the self-help reputation will become. Relationships between Government and people based only on the sub-chief link have proved inadequate, and a strengthening of Locational Development Committees would be useful.

MIGORI-KURIA

Migori SRDP has made a good start towards institutionalisation of local involvement, though the idea of grass-root involvement in planning was not acceptable to the planners and the lack of it is still having effects. SRDP came to the area with the usual open-baraza and VIP fanfare in which discussion was severely discouraged, after which it withdrew into planning sessions of officials. Chiefs and Development Committee heads were included in the Planning Committee and Locational extension agents were called to meetings - at which, however, they apparently only received lectures. No one below this level was consulted, and even now the people we talked to - a chief, a Development Committee head, farmers, traders, cooperative officers - seem to know nothing of SRDP plans. One result of this is a vague resentment that SRDP is "doing nothing" (as they see it) about agriculture, the major form of local economic activity. The roads, dip, and water programmes are appreciated, but there seems to be no confidence that these will work, or expand beyond the early beginnings. Part of this may be due to a history of highly limited development funds and frequent promises by politicians, but part is also due to a lack of communication of the potentialities of SRDP as a whole.

Under the second Area Coordinator and a new Community Development head, the SRDP emphasis shifted from non-involvement (in planning) to involvement (in implementation). To do this they strengthened a local structure which had been lying dormant for several years: an institutional hierarchy of development committees. The base is the traditional village committee of respected older men, which makes suggestions for new projects to the Locational Development Committee. The latter is comprised of one representative per village (about 200 families) elected within the sublocation barazas. Village suggestions are investigated and then fitted into the local scheme of priorities, and the LDC plans roads, dips, health, education, and any other inter-village affairs. Implementation is handed over to special committees, almost always with the Chief or Sub-chief to enforce the majority opinion against dissenters. The Locational and Divisional Development Committees were almost dormant when the new SRDP staff came and reactivated them by the simple procedure of requiring minutes of their meetings from the CDA's. We suspect that the prospect of obtaining government funds to help in carrying out their projects had a great effect also. At the same time, long-inactive local dip and airstrip projects are finally being brought to a successful conclusion. This revival of the grass-roots

available for only a very short time it is considered that this is not an indication of failure. The roads projects have been much discussed in the LDCs, but few villages have yet begun to do the actual clearing work required to implement them. The three roads under construction are all old ones offered to SRDP to improve. Increased local involvement in planning the basic programmes is needed to convince the village committees to commit themselves to the development programme. The first step should be consultation at the LDCs and sub-chiefs' barazas on the planning of the as-yet locally uncommitted agricultural programme. (See appendix D for further information on the Migori SRDP.)

MBERE

Within the last year Mberere SRDP has seen large changes in staff attitude towards local participation. Ultimate effects of these changes are still uncertain, but indications are good for a strong SRDP programme in future.

All early SRDP studies and plans for Mberere stressed the reputation of Mberere people as conservative and hostile to development. Thus when the programme started there was little inclusion of the people in planning; self-help and administrative structures were ignored in favour of the clan elders in order to gain access to land and labour, and labour for a pipeline was paid instead of self-help. Cotton blocks failed, in some part because of the feeling that they were government projects and therefore to be charged the highest rental and labour rates possible. (Further elaboration on the failure of the Cotton Blocks Project appears in Appendix C.) The first group ranch was scheduled for an area that neither wanted nor needed it. Another pipeline was built by "harambee" labour that included some coercion. Most successful self-help projects were carried out in the realm of primary education, i.e. away from the influence of SRDP or other external government.

Within the last year there have been critical changes of staff in the Area Coordinator and Community Development offices, and the situation described above is changing. Locational barazas have become forums for the making and discussing of local suggestions for projects; sub-chiefs' barazas' suggestions are passed on to SRDP for consideration; self-help committee members have lists of planned projects they hope to start work on as soon as present ones are finished. On the administrative side, other Ministries have been persuaded to accept the help of Community Development in their spheres beyond Kenya-traditional limits. Communal share-the-risk fields have begun to appear among the individual demonstration

plots set up by Agriculture, and the infrastructure for A.I. has been quickly set up. It is uncertain at this time how much increased effort is being given to Harambee road-clearing and trench-digging tasks. It seems, however, to be much greater in the lower areas. These areas are poorer in infrastructure and agricultural potential. The richer, higher zone seems less willing to spare its labour, though more willing (and able) to contribute cash. The labour constraints in the north-west should be more fully investigated and further self-help plans be biased in terms of money/labour contributions accordingly. Another possible cause of upper-zone reluctance is the greater autocracy of the Chief, whose barazas are perhaps less "discussion-oriented".

Local knowledge of SRDP present and future plans is quite good all over Mbere, and there seems to be widespread confidence that suggestions raised at barazas - for new roads, help with locally conceived projects, etc. - will be forwarded to government, seriously considered, and implemented. Probably this confidence will decrease as the level of infrastructure rises and choices have to be made - e.g., when 5/6 sublocations all wanting a health centre realize they are not all going to get one, or, if they build it, get it staffed. This can be partially avoided through the process of getting people involved early (now) in the economics of decision-making at the Locational barazas.

The Mbere self-help structure is removed from the clans or any other permanent body. Usually SRDP officials tell the Chief and sub-chiefs about a campaign and the promised aid, and the latter call sublocation barazas at which it is discussed and committees are elected. A committee must represent each village but is otherwise open to all. In four committees there were a few ordinary farmers, sub-chiefs, traders, churchmen, teachers, "women", and councillors. Sub-chiefs interviewed insisted that clans are not concerned with matters of development and that there is no need to make sure all are represented. One said (approximately), "when I go to a clan meeting I am a member of my clan, but when they (the elders) come to mine they are just people". Since the clans are not involved in modernization (except insofar as it touches on traditional realms of authority such as land) efforts should be made to institute a new decision-making body - Locational Development Committee - to provide permanent co-ordination and planning of local projects.

In Kwale the problem of indigenous participation is an extremely difficult and important one. Kwale is divided between the indigenous majority Digo (and Duruma) and ever-increasing numbers of up-country immigrants, especially Kamba. The latter have the education, co-operative skills, and progressive motivation to seize and hold SRDP attention. But the majority Digo object strongly to their mere presence, and will totally destroy the SRDP programme if immigrants are favoured over indigenes - even though most Digo do not understand the benefits to come from the various projects. Already many Digo are apparently convinced that "SRDP" is a code word for a Kwale immigrants' improvement plan. This suspicion has been voiced in County Council.

At present involvement of the people is being done on an ad hoc basis. Almost all projects mentioned were initiated by Administration and SRDP, via chiefs and/or local Ministry Officials. One of the two which are "locally initiated" is Kamba. The chiefs appoint leaders, or village-elected leaders are approved by Administration, and then everyone except those immediately involved shirks the work. This is made easier by the fact that chiefs and sub-chiefs generally stay in the chief's office and wait for complaints rather than go out to superintend projects. The traditional village committees are perceived locally as primarily religious bodies. Some of the younger Digo have identified themselves with the modern sector and form land adjudication and agricultural committees, but these progressive farmers tend only to work for their own group.

As yet self-help is used only for dips and the Kikoneni water project. The roads project needs to be accelerated but as a matter of policy no self-help labour is being used. Self-help has been very successful in the Kikoneni project. It was commendable that district-level staff was given authority to shift the phasing of projects when local political or ecological constraints make the original plans difficult or dangerous to execute. (This problem also came up in Mberere, with respect to group ranches.)

Most Digo do not understand the benefits to be derived from the water or ranching schemes, and consequently ignore them or oppose them as immigration schemes.

The Community Development Department is weak because of recent and rapid turnovers of staff.

Digo youths are increasingly rebellious and angry at their parents for not having educated them. Many of them will acquire their own land at adjudication. It is proposed that SRDP take advantage of this and concentrate on the younger generation. By agreeing publicly with the local belief that the elders' councils are for religious matters only and by saying that the elders should not be forced to change their old way of life, SRDP officials can legitimately concentrate on teaching and involving the young and middle-aged (who also show some signs of progressiveness). This involvement should be spread beyond the present progressive farmer group to avoid the creation of a small Digo elite which could cause problems later when other Digo try to enter the same sector. One possibility to be explored is a special agricultural training programme for youth, to concentrate on farming the new plots outside the villages, and to be located on one of these farms within the area. Agricultural instructors could be seconded from the regular extension agents or FTC teachers on tour, and room and board could be provided as in a camp - tents and minimal cooking facilities - so that costs could be brought very low. (For further discussion of political and immigrant - indigenous elements, see the Kwale report, in Appendix B)

KAPENGURIA⁺

Kapenguria presents as difficult a problem in involvement as Kwale, but (politically) a less urgent one, as the uninvolved and neglected group has little desire to change that state of affairs. The difficulties of bringing a pastoral people, minimally involved in any part of the modern sector, into an SRDP programme are enormous. Nevertheless we suggest that at present they are not being approached in the right way. Emphasis should be placed on the presentation of project ideas to the Pokot elders and youth leaders, and a commitment to projects should not be made until they have such local consent. It is easier initially to simply impose projects - roads, improved cattle markets - you think will have the effect of increasing receptivity to change, but the reaction to this imposition can nullify all hoped - for effects. Under recent policies in Kapenguria the effect of project imposition has been magnified by a failure to even notify the pastoralists

+ This report was researched and written before the present Area Co-ordinator was appointed. It is confidently expected that the situation has changed

of coming events. To the people of Sook a road meant more police coming to arrest their cattle-raiding activities, but SRDP barazas to discover their needs and offer to help with them were scheduled for after completion of the road. When tractors appeared unannounced and began to cut down their trees, the Sook objected vigorously; police were sent to guard the tractors and the antipathy to the road (and possibly SRDP) was consolidated. Land acquisition for a holding ground project in one pastoral area was begun before the people understood clearly what it was for, and MP's and Councillors joined in the protest against "Black Colonialists" stealing their land. In Kapenguria from the beginning the jobs of DO and Area Coordinator have been combined, and this has probably made it impossible to involve the pastoralists voluntarily with the law-enforcing SRDP. In order to draw the pastoralists into the programme, there must be a highly visible shift of policy away from imposition of projects, away from involvement of SRDP staff with administrative police, and towards solicitation of wants (or even demands) from the pastoralist leaders. Attention should be given to identifying leaders of different interest groups - youth, women, middle-aged, elders - and to playing these off against each other to break the solid front of antipathy to the old style of SRDP. Projects such as the holding ground marketing system should be fully discussed at local leaders' meetings, to work out its future implications and make compromise modifications in accordance with local ideas. Many officials say that pastoralists are incapable of such consultation, but it has never been tried more than halfheartedly, and the Kapenguria SRDP experiment is less likely to succeed without it than with it.

The agricultural area of Kapenguria - the Southeast - is more typical of other SRDP areas, and is receiving the most staff attention because it is so much easier to deal with. However, there is some tendency at all levels to equate SRDP projects with those of the Community Development Department, no doubt the result of the effectiveness and hard work of the CDO and AC/DO in Kapenguria.

The integration of the self-help movement with SRDP objectives has proceeded quite fast, though not altogether smoothly. The dips and roads programmes have been proceeding very rapidly, but the dips in particular have suffered from a lack of expertise. The agricultural zone's goal is one per village (20-30 homes), which is surely excessive. Once built, some dips are filled with understrength chemicals which cannot protect the cattle, and some dips have been abandoned. The difficulty of getting

sufficient staff to Kapenguria is probably largely responsible for this.

The chief from one of the two agricultural locations and the SRDP staff told us that many SRDP barazas involving local people in discussions had been held in the locations - even, in the chief's area, twice in each sublocation. However, others we talked to - traders, co-operative heads, a sub-chief - did not remember these or anything else about SRDP. An agricultural co-operative which provided the only supply of hybrid maize outside the main market had been notified (though not consulted) about the hybrid demonstration programme.

It is debatable whether it is necessary to create more awareness about SRDP, since no one seems upset that it is not (in their perception) operating in Kapenguria. There is a need for more integrated local planning and consultation of experts in the agricultural zone, and, as we have discussed above, the pastoral zone approach needs redirecting in a major way. Further elaboration of this appears in Appendix A.

RECOMMENDATIONS

Recommendations on involvement in future SRDP areas are to be found in the section, "A Scheme of Involvement". The recommendations below are framed for use in the present SRDP areas, taking into consideration the past history of involvement and non-involvement. Although it is recommended that all areas strive to improve their relations with the local people, Vihiga, Kwale, and Kapenguria need the most effort in this field.

PUBLICITY

1. (a) Use barazas and leadership seminars to clarify the local perception of SRDP activities in the areas where it is confused, i.e. Kapenguria and Migori.

(b) Reduce the level of publicity on Vihiga, locally, nationally and internationally. Tone down claims of major money inflows, great successes, as this tends only to disillusion the local people who do not see the claims reproduced on the ground.

2. Experiment with a news sheet in Tetu (60 per cent of farm managers literate according to Ascroft et. al. baseline survey) and Vihiga (56 per cent Mook 600 - farmer survey). Collect literacy figures for Migori and Mberere (one in three literate should be enough). The news sheet should come out bimonthly. to be posted in each village. It should

be in the vernacular(s) and emphasize articles by local interest group leaders on plan successes, failures, and suggestions.

3. Continue the cinema experiment in Tetu, and expand it (where relevant) if it works.

CONSULTATION

1. Make a highly visible change in policy towards local consultation (especially Vihiga, Tetu, Migori): choose an activity for which future plans are not impossible to change (e.g., agriculture in Migori), inform local interest groups that it is intended to open the area to public discussion in order to make the plan more responsive to local wants, call locational barazas to publicize the tentative SRDP plans and invite the public to discuss their reactions and proposals at sublocation and interest group meetings and to forward suggestions, call all report-submitting leaders to discuss contradictions, and get their (or an active Divisional Development Committee's) consent to the final plans. Ensure that Ministry staff competent to advise on constraints are present at the leadership meetings, so that the government can abide by the final decision.

2. (a) Have the Community Development staff and other local extension agents submit lists of as many local interest groups as they can think of, in rough order of influence. Invite leaders of these groups - in order of influence if too many - to seminars on planning techniques as related to on-going SRDP and later local development. Reveal future plans for the area and discuss them. Tell the leaders to discuss them further with their groups and forward suggestions.

(b) Note which local interest groups are most active in forwarding proposals and critiques and occasionally send a staff member to their meetings to discuss directly with them.

3. Use local (sublocational and locational) staff meetings to brainstorm new ideas to deal with the old administrative/extension problems (transportation, etc.) and to criticize SRDP plans from their point of view. Ensure that a planner from the relevant Ministry attends all these meetings at the initial stages of the programme and occasionally thereafter.

4. Set up annual evaluation sessions: invite all local interest groups to submit evaluations of project schedules, successes, failures (to complete projects or to utilize the structures afterwards), and future plan modifications. Summarise and distribute them within SRDP and throughout interest groups and among local officials. Ask for further comments, and work out a compromise evaluation at leadership

or DDC meeting.

ESTABLISHMENT OF LOCAL CO-ORDINATING BODIES AND SELF-HELP IN SRDP

1. Create Locational Development Committees in Vihiga, Tetu, and Mberere (plus Kapenguria and Kwale as local involvement grows) by election of representatives at sublocation barazas. Make them the main link between SRDP and Harambee efforts and encourage frequent meetings through frequent consultation and attendance by the CDAs.

Train them in ⁿintegrated development planning. Experiment with a Divisional Development Committee elected by these groups but drop it if the summary of local interest group reports starts to disagree seriously with it.

2. Have a planning bias towards using self-help labour and other contributions. But take into account the past history of Harambee in the area. Has it been pre-empted by the politicians to the extent of popular resentment? Have the people shown a preference towards contributions in cash instead of labour or vice versa?

3. Before committing SRDP to a specific self-help project, ask:
(a) has it already established sufficient momentum to continue unaided?
(b) has it already acquired sufficient funding sources, skills, and comprehension of maintenance needs? (c) has it perhaps even already reached the desirable goal? If the answers are yes, avoid the programme. (d) If no, help in the way indicated. Will government takeover be regarded as a signal to stop local contributions and responsibility?

4. Experiment in Tetu, Migori, Vihiga and Mberere with expanding the variety and success of self-help projects through publicity to local and non-local experiments (pig-breeders, group pullover-knitters, broom marketers) and through technical advice to struggling groups trying such new ideas. Evaluate and replicate publicity and advice for successful projects elsewhere in Kenya.

5. Experiment with self-help maintenance in several areas. e.g., explain the processes and frequency of road maintenance necessary to Mberere self-help groups (and Migori, if feasible) and inform them that the roads will be unusable again within X years if they do not maintain them, because MOW cannot. Establish a monitoring/reporting system whereby the local group leader checks and reports each month on the condition of his dip or waterpipe or road section and on the action

CO-ORDINATION OF INVOLVEMENT ACTIVITY WITHIN SRDP

1. Co-ordination of publicity efforts, getting appropriate staff to local leadership meetings, etc., should be carried out by the Area Co-ordinator.
2. Implementation of involvement recommendations should be facilitated by their inclusion in a proper sequence in the reporting system.
3. The Area Co-ordinator and district-level staff should be empowered to change phrasing of the original plans where local constraints indicate. Red tape delaying such changes should be minimized by active Ministerial co-operation when requested by the Area Co-ordinator.

SPECIAL AREA RECOMMENDATIONS

(areas are included here because SRDP face special problems in involvement not found elsewhere.)

1. Kwale youth should be given special consideration and drawn into the SRDP project - proposal process, through some form of youth organization, possibly based on cultivation of the new farms being established outside the towns. Sub-chiefs should be sent out of the chiefs' camps to take responsibility for stimulating interest in self-help and for recruiting and assisting self-help leaders. Representative institutions to co-ordinate self-help and leadership seminars should be added as local interests rise.
2. Kapenguria pastoralists should be consulted immediately about their wants and opinions of present projects, first through consultation of the widest possible selection of local interest group leaders, and then through discussion at the meetings which these leaders should be asked to call. At all costs official barazas are to be avoided. Some un-uniformed official - CDA, Veterinary Officer, or whoever - with experience in pastoral areas and a positive attitude towards pastoralists might be chosen/posted to form the main contact link between the Area Co-ordinator and the pastoralist sector of Kapenguria.
3. In Tetu self-help has been badly overtaxed. Try to rescue the movement by establishing a procedure for vetting all projects above sub-location level by Locational Development Committees to counteract the politicians' demand for more and more projects. Note there are local self-help projects in that area where the participants have specifically rejected outside interference and support. Try to minimize the demands large projects make on Tetu people.