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Working papers

KENYA'S RURAL INDUSTRIAL DEVELOPMENT
PROGRAMME: AN EVALUATION OF EXPERIENCE
AND PROPOSALS FOR ACTION

By

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Summary of Findings and Main Recommendations

1. The detailed activities of the four existing RIDCs are examined, using job cards at the centres and client files, and assessed on the basis of the following potential contributions:
 - (i) servicing of craft and moderate-sized industry
 - (ii) offer of common facilities
 - (iii) provision of training and skill improvement
 - (iv) provision of capital
 - (v) supply of materials
 - (vi) bookkeeping and management advice
 - (vii) product development.

The results were comprehensively negative.

Recommendation:

the existing centres should not provide the model for the 23 RIDCs proposed in the Development Plan and specifically for those shortly to be established in Voi and Malindi. A modified structure is proposed.

2. The KIE proposals (Development Plan) for industrial estates at Nyeri, Kakamega and Embu appear to overlap with the RIDP proposals. The research carried out suggests the KIE proposal may be even less successful than the RIDC's have been, unless government policy with respect to location is revised.

Recommendation: this potential overlap should be scrutinized.

3. Policies have suffered from a failure to make a clear distinction between 'moderate-sized' industries and 'craft' industries, and to recognize that the substantial part of rural industry promotional activities will relate to the latter. The appropriate forms of promotion for craft and for moderate-sized industry are different.

4. Up to now the KIE and the R.I.D.P. have been inclined to different approaches, the KIE towards more heavily-capitalized centres with client assistance at the centre somewhat along the lines of industrial estates, and RIDP officials towards an extension approach with assistance at clients' premises.

Both approaches have been excessively costly (the estate approach because of excessive overheads in relation to members served, the extension approach especially because of transportation costs); neither have reached many clients or created much employment; neither have much changed the situation of clients.

5. The absence of content in the extension approach arises principally because of its ignoring the main constraint on the improvement of craft industry: the lack of capital in the form of premises, power, tools, and materials.

Recommendation: Reliance on this approach should be abandoned.

6. Capability for loan distribution has been underutilized: what has been distributed has not been distributed in the most equitable way possible.
7. Some of the existing centres are badly located within the town area, and this location produces measurable variations in performance between the centres.

Recommendation: More attention should be paid to the site chosen, which should be as close to the centre as possible.

8. An alternative form for craft industry development.

Recommendation: The paper proposes an integrated system of major and minor workshop clusters:

- (i) EXISTING CENTRES IN TOWNSHIPS WOULD BE TRANSFORMED BY B
 - (i) Existing centres in townships would be transformed by building 30-40 cheap sheds or workshop units around the existing buildings.
 - (ii) in smaller rural centres smaller clusters of 5-10 units would be built around a generator and some common facilities.
9. The cost of such sheds should be such that artisan enterprises could afford to pay rent which would cover the full depreciation of the building. This means a building costing around 4,000/-, compared to an RIDP prototype being built at Embu of 25,000/- and actual sheds at Kakamega at 50,000/-. Sheds of the type required are being designed at Machakos, but need to be adopted as the general model.

Recommendation: Flexibly constructed sheds of the Machakos type should be adopted generally. Economies of scale in construction should be secured, and more rapid progress made, if these were built by the RIDC's for renting or sale rather than clients being left to build their own.

10. The integrated system of major and minor workshop clusters proposed represents a compromise between the estate and extension approaches. Its advantages would be: (1) by providing premises this removes a major constraint (2) supervision of tool loans is facilitated (3) capital can be provided to artisans in minor rural centres more equitably (4) common facilities would be better utilized (5) a national system of bulk purchase of materials can be undertaken (6) skill improvement particularly for apprentices would be easier (7) 'wastage' in product development and innovation due to the absence of a production capacity to deliver orders would be reduced (8) assistance to clients in marketing and the obtaining of orders would be facilitated (9) placing of village polytechnic leavers would be easier.

11. Recommendation: the range of craft industries assisted and should be expanded.
12. Recommendation: village polytechnics should be located adjacent to workshop clusters and vice versa.
13. A major objective of the RIDC system should be the development of appropriate technology products and competitive manufactured goods, especially tools. Some promising preliminary work has been done already.

Recommendation: more backing is needed for this development once the system proposed is established.

14. So far the RIDC's have made a negligible impact (the granting of a very small number of loans only) on 'moderate-sized' rural industry. Most projects in this area have not progressed beyond the investigatory stage. The main reasons for this are (1) possibilities for agri-processing industries have often already been taken up, and the new possibilities which exist which exist are frequently raw-material dispersed industries not suitable for an industrial estate approach (2) the main need, for loans, is already catered for by the ICDC (3) RIDC personnel necessarily have only a limited capacity to evaluate potential industries (4) most important, there is no policy of directing or persuading industries which might provide nuclei for the development of ancillary industry away from Nairobi towards other townships.

Recommendation: Project evaluation could be strengthened by a regional system combining experts at a regional industrial estate with managers of major district centres (major clusters).

Recommendation: Location policy should be reexamined to explore the possibilities of directing nucleus industries to other centres.

15. The scope of the proposed Small Business Development Corporation.

Recommendation: (1) the new institution should NOT incorporate assistance to trading enterprises, should concentrate on industry.

(2) It should comprise a Rural Small Industry Division and an Urban Urban Small Industry Division, the alatter incorporating major regional industrial estates as well as urban craft industry workshop clusters.

16. The Rural Small Industry Division would run the decentralized system of major and minor workshop clusters, organized on a District basis, to fit in with a system of District Planning.

It can now be seen that there are potential area overlap in the future between the two programmes. There are proposals for future K.I.E. estates at Nyeri, Kakamega and Embu, three of the existing R.I.D.P. centres. As we shall see presently, the latter centres have been forced to occupy themselves with craft industry, and have been extremely unsuccessful so far in promoting or establishing 'modern' small-scale industries of a moderate size. The same would surely hold for Kisii and Kericho. If this is so, the prospects for the more ambitious industrial estate cannot be good. In any case it will be argued that the estate form is desirable for craft industry but unsuitable for the moderate-sized industry presently forthcoming, and that the development of 'growth poles' in major townships outside Nairobi and Mombasa will not happen without a positive policy of direction of industrial location such as is at the moment absent.

The R.I.D.P. Evaluation Reports

As just mentioned, the R.I.D.P. has been deliberately experimental since its inception. Two evaluation conferences were held as the programme developed in order to gauge experience. The two conference reports afford a fairly comprehensive account of this experience, and of the thinking and ideas this has generated among the various agencies involved.⁴ Although thinking has evolved further since April, 1974, the reports provide a useful starting point for discussion of the programme.

While this may be a misleading impression, the reports appear to suffer from two related deficiencies: (a) nowhere is there a very clear statement of which product lines have been successfully developed and which products and activities appear likely to be capable of promotion in the future (though some of these products may be deduced from the reports); (b) nowhere is a clear distinction made between what has been described variously as 'household industry', 'dwarf industry' or 'craft industry; on the one hand, and 'modern small industry' on the other. The standard work on the subject of small industry defines small industry as all establishments employing less than 100 workers, and cottage industry as establishments employing less than 10 workers.⁵ The lack of clarity on these

4. H. Kristensen, ed., assisted by P. Kongstad, Assistance Problems, Policy Planning and Administration, Report for the Programme Conference, Nyeri, 5-6th September, 1973, and H. Kristensen, ed., R.I.D.P. Evaluation Report for the Programme Conference, Kisumu, 24-26th April, 1974.

5. E.F. Staley, and R. Morse, 'Modern Small Industry for Developing Countries', McGraw-Hill, 1966.

two points is of some importance, because it necessarily affects the promotional strategy to be adopted, as we shall indicate.

The Importance of Craft Industry in the Rural Economy

The 1970 Report by the KIE on the Rural Industries Development Programme did specify the three likely categories of industry for the rural areas;⁶ first, agro-related industries, such as processing; second, ancillary and feeder industries developed in relation to a particular large-scale industry which happens to be situated in the area; and thirdly, industries and services based on the consumption pattern in the areas. When we come to look at this consumption pattern, we are led directly to various types of craft industry.

When the present writer was asked to carry out an evaluation of Tanzania's small industry programme in 1970, his approach was also to start by examining the consumption patterns and needs of households in the rural areas. A household survey of consumer durables was carried out throughout the rural areas of Tanzania (and some parts of Kenya), this survey including details of the construction of the houses themselves.⁷ The most striking finding was the extreme paucity of the goods possessed: a large proportion of households lacked a bed, table or chairs, and owned perhaps one or two stools. While there were very great differences between districts, due to differences in the development of cash crops and the level of purchasing power, even in the rich areas there were great inter-household variations. While the position in Kenya may, therefore, be better on the whole, the quantity and quality of possessions in a large proportion of households is probably much poorer than is generally acknowledged.

These results serve to underline the low purchasing power in the rural areas, and the sorts of commodities likely to be in demand at these income levels. Secondly, they underline what the needs are: increasing the availability and reducing the price of such mass consumption goods may increase welfare more than the factory production of sophisticated consumer goods produced for an urban elite even if ordinary cost-benefit calculations suggest higher profitability for the latter.

6. Kenya Industrial Estates Report: Rural Industries Development Programme, Nairobi, 1970.

7. I. Livingstone, Results of a Rural Survey: The Ownership of Durable Goods in Tanzanian Households and Some Implications for Rural Industry, E.R.B. Paper 70. 1, Economic Research Bureau, Dar es Salaam, 1970.

An inventory of goods in common usage in the rural areas suggests as craft industries masonry and brick/cement block production for the rural house itself; doors, steel windows, furniture, and various metal goods - charcoal-burners, lamps, basins, containers; mats and other very simple household equipment; clothing and footwear for members of the household. The craft industries supplying these would be masonry, carpentry, metal-working, tailoring and shoe-making. In addition there would be the production and repair of agricultural tools, and repairwork of other types, most importantly motor and bicycle repair.

While these trades do not give the impression of modern economic development, they are in fact of extreme importance in the rural economy and in the lives of the great mass of Kenyans, as the I.L.O. Mission to Kenya recently pointed out in emphasizing the importance of Kenya's 'informal sector'. The 1972 S.I.D.A. Report estimated the number of 'informal sector' small-scale 'industrialists' in Kenya as numbering 20,000 to 25,000, and the numbers engaged in the sector as 60,000 to 70,000.⁸ While, therefore, this sector may not be the most dynamic, in terms of innovativeness, or constructive, in terms of long-term economic transformation, it is possible to say without attempting sophisticated rate of return analysis that the benefits should be very substantial if a significant improvement in the effectiveness of the sector can be obtained without very large financial outgoings. It is worth underlining the fact that most of industry at present in the rural areas is of this very simple type by referring to a rough survey of local industry carried out by Embu R.I.D.C. soon after its establishment. The survey is summarized in Table 2. This survey is certainly incomplete, but probably gives a fair picture of the current activities which it is the task of the R.I.D.C.'s to develop, whether in a township such as Embu or minor centre such as Runyenies. To emphasize this simplicity we may list the kind of products made by 29 of the sheetmetal workers: water tanks and containers (by 23 workers) charcoal braziers (21 workers) wash basins (12) buckets (11) bicycle repair (9) steel windows (7) watering cans (2) dustbins (2) water heaters (1) panel beating (1) brooders (1) ox-carts (1) pipe-chairs (1) and gates (1).

8. S.I.D.A. Report: Industrial Estates in Kisumu and Mombasa and Small-Scale Industry Promotion, Kenya 1972, p. 170.

	Embu Town	Shauriyako (near town)	Manyatta	Runyenjes	Other	Total
Sawmilling	3	0	1	0	1	5
Woodworking	21	2	3	8	15	49
Sheet metal working	10	11	2	3	8	34
Bicycle repair	2	0	1	4	2	9
Panel beating	1	0	0	1	0	2
Garages	11	0	1	2	1	15
Leather work (shoes and bags)	6	0	4	2	4	16
Posho mills	0	0	1	2	5	9
Tailoring	1	0	0	1	0	2
Dry cleaning	1	0	0	1	0	2
Mattress making	1	0	0	0	0	1
Masonry	0	0	0	0	0	2
Concrete blocks	1	0	0	0	0	1
Total	58	13	13	24	39	147

Table 2, Local Manufacturing and repair activities in the Embu area, number of establishments.

(Note: establishments listed twice if undertake two activities).

The National Small Industries Corporation in Dar es Salaam, not by coincidence, selected wood-working and metalwork as the first two activities to be promoted. A survey showed the former to be highly remunerative by local standards: earnings in metalwork were substantially lower, success in promoting this activity depending obviously on some product development.⁹ A programme of diversification into the other craft industries mentioned above, including tailoring and motor repair, was proposed.

Much of the R.I.D.P. in Kenya so far has in fact been concerned with just this kind of small-scale craft industry. Table 3 shows that in three of the Rural Industrial Development Centres reporting in September,

9. I. Livingstone, The National Small Industries Corporation of Tanzania: An Examination of Current Plans and Prospects, E.R.B. 70.23, Economic Research Bureau, Dar es Salaam, 1970, and 'The Promotion of Craft and Rural Industry in Tanzania'. Viertel Jahres Berichte, March, 1972. N.S.I.C. has since been succeeded by S.I.D.O., the Small Industries Development Corporation.

1973, only 36 out of 206 clients providing information, that is 17½ per cent, employed 10 or more persons, while about 65 per cent employed less than six¹⁰. The most common (modal) number of employees was 3 to 5 persons. Thus the bulk of the businesses dealt with were in fact 'dwarf' industries. This is an unprepossessing term, and if we turn to Table 4, we see that most of the business lines are in fact 'craft' industries - artisan industries based on particular crafts or trades - principally furniture-making, metal-working (especially sheet-metal work) and motor repair. These accounted in 1973 for about 63 per cent of the total number of participating clients.

Centre	Number of employees						Total	
	None	1	2	3-5	6-9	10+	Known	Unknown
Kakamega	0	0	7	34	16	16	73	0
Nyeri	12	4	18	33	12	19	98	71
Machakos	3	10	5	9	7	1	35	23
Total	15	14	30	76	35	36	206	99

Table 3. Number of Intensive and Extensive Clients by No. of Employees, September, 1973: three R.I.D.P. Centres

Source: 1973 Conference Report.

Business line	Embu		Kak.		Mach.		Nyeri		Total		
	no.	%	no.	%	no.	%	no.	%	no.	%	
Furniture	20	20	33	39	37	44	56	26	146	30	
Sheet-metal work	22	21	3	4	3	4	25	12	53	11	
Other metal working	2	2	4	5	11	13	5	2	22	5	
Auto/bicycle mechanic	21	20	16	19	15	18	29	14	81	17	
Tools and machines	0	0	3	4	2	2	0	0	5	1	
Sawmill	6	6	3	4	1	1	31	14	41	8	
Posho mill	8	8	1	1	1	1	18	8	28	6	
Other + unknown	24	23	20	24	14	17	51	24	109	22	
Total		103	100	83	100	84	100	215	100	485	100

Table 4: Clients distributed by business line, 1973.

Source: 1974 Conference Report, Table 3.22.

10. 1973 Conference Report.

This figures may well be as high as 80 per cent, since many of the clients in the 'unknown' category are likely to be in these lines.

We may conclude (1) that the large mass of rural entrepreneurs (outside agriculture and commerce) already in existence in the rural areas, and likely to be looking for assistance, will be in these craft industries; (2) that the rural areas probably have a comparative advantage in these lines, catering for local consumption, based on a 'dispersed market pull' and that these lines can probably be pushed successfully right across the rural areas; (3) that the problem of establishing modern small industry, i.e. small factory industry, in rural areas is likely to be more difficult in that (i) the entrepreneurs will be less easy to find, and (ii) the business lines will be more difficult to identify; and finally (4) that the best approach for the promotion of craft industry and of small factory industry may not be the same, and could be quite different.

It seems therefore essential to keep a firm distinction between the two categories, even if there is, of course, some mobility between the two. It is also important to guard against 'grandiose' ideas regarding the type of rural industry with which the agencies involved will for the most part be dealing; and to avoid minimizing the importance in terms of both income and employment of the informal sector, something which has in recent years been recognized in Kenya as being very substantial. Most of this paper will concentrate on craft industry, without implying in any way that its long-run significance will match factory production.

The Estate Approach versus the Extension Approach

The distinction made above is very relevant when we come to consider one of the main issues raised in the two conference reports, whether to concentrate on an estate approach, patterned along the lines of the urban industrial estates, or an extension approach. Up to now R.I.D.P. personnel have consistently favoured an extension service, policy under which assistance is given to the entrepreneur in his own workshop: it is essentially a mobile form of assistance. The K.I.E., under whose umbrella RIDP in fact falls, clearly favours something more along the lines of its traditional estate policy, and there are signs of some mild friction between the two.

We shall argue that both approaches, pursued in their pure form, can be shown to be unrewarding and that a system of workshop clusters, combining elements of estate and extension, should be adopted.

In order to evaluate the performance of the existing R.I.D.C.'s we can split up their potential contribution, as follows: (i) servicing of small and moderate-sized industries; and skill-improvement; (ii) offer of repair facilities for local small industry; (iii) provision of training; (iv) provision of capital through common facilities, loans or working capital credit; (v) supply of materials under bulk purchase; (vi) bookkeeping and management advice; (vii) product development.

Performance of the R.I.D.C. Estate-Workshops

Overhead Costs and Appropriateness

The resistance shown within the RIDP to the extension of the estate approach is based on the excessive costliness of the present four centres. The total cost per centre has been estimated as 1.1 million shillings. Clearly this would require a substantial flow of output, on a factory scale, to justify itself. Taking the programme as a whole, extension service as well as centre workshops, 61 R.I.D.P. employees (only two of which were in Head office) served in 1973 205 clients. The cost per job created has been estimated at shs.7,450/- per job. To warrant such overheads and reduce the cost per job created, the clients served would either need to be substantial businessmen, and the effect of the service on their business substantial, or the numbers of small enterprises served would need to be very large. As we shall see presently, the number of moderate-sized businesses served by the estates has been very small, and there are good reasons why this might have been expected. The initial investment in the centres thus probably represented a euphemistic view of the sort of industry which the centres would find themselves serving.

Apart from overheads associated with buildings and personnel, there is the question of machinery and equipment in the centres. We may examine this in relation to the Embu Centre. Out of the 17 machines listed in Table 5, only a few were used very much: the welding equipment (91 out of 153 jobs in the metal (workshop), the multi-roller swaging machine (16 jobs), the universal centre lathe (33 jobs) and the hand power tools. Most of the jobs involved only small, very cheap equipment, especially welding equipment and power tools. Much expensive machinery lay idle. Four machines which cost 41,824/- (present values are much higher) were used 12 times in 10 months. These figures partly reflect the particular requirements of the clients using the Centre most regularly and are not therefore an accurate guide to demands of all potential craft-industry users, or to requirements if the

Metal workshop	Historical cost (shs)	No. of times used (over 10 months)	Main Common Facilities Workshop	No. of times used (over 12 months)
Electric welder	n.a.	72	Universal Centre lathe	3
Handpower tools	n.a.	21	Universal grinding machine	10
Gas welding machine	1,683/-	19	Hacksaw	5
Multi-roller swaging machine	4,085/-	16	Drilling Machine	3
Handlever shear	n.a.	11		1
Corrugated roller machine	12,350/-	5		10
Bending roller*	19,950/-	4	Total	53
Pedal guillotine	9,524/-	3		
Sheetmetal folder	n.a.	2		
Universal pipe bender	n.a.	0		
Notching machine	n.a.	0		
Total		153		

Table 5. Intensity of the Use of Metalworking Machines at Embu R.I.D.C.

*(A 2" bending roller had to be bought in addition as the large model /identical to that at Nyeri/ was found to be no use for the type of jobs common at the centre).

nature of centre activities were to be altered. They do however suggest a degree of misapprehension as to the kind of enterprises that would be catered for, and the type of machinery which their requirements could sustain.

By and large the woodworking machines were much more intensively used, partly because the number of clients is much-greater, this itself reflecting the much greater importance of the furniture trade in catering for local consumption expenditure. The equipment however, is less expensive and more divisible and in general more 'appropriate'.

(i) The Servicing of Craft Industry

As we have first said, these high overhead costs of staff, buildings and machinery could only be justified by servicing a substantial clientele and output. Table 6 shows the number of clients using the metal and wood workshops

at Nyeri R.I.D.C. In metalworking just 3 clients accounted for 179 out of 222 jobs (tasks for which a separate job card was issued) 80 per cent of the total. These were essentially 'resident' clients and it not being the purpose of the centres to provide expensive facilities for such, this service to three clients can be discounted. Secondly it is likely that clients using the machines only once or twice in ten months would either be using the machines for a repair job or for an odd job, rather than using the facilities to assist their regular business. This covers another 15 clients, leaving only and at most five clients, perhaps only two, whose regular business outside the centre can be said to have been assisted by the centre facilities. In woodworking 3 out of 20 clients using the centre over six months appeared to have been residential or semi-residential, and another 8 used the centre for odd jobs: a maximum of 9 clients appeared to have been serviced according to the goals set for the facilities.

At Embu R.I.D.C., as Table 7 shows, the position is very similar. The first point to note about the use of the metal workshop is the extremely small number of clients, 20, using the workshop over a 15-16 month period. Five clients (all of whom stayed for some months at the centre itself) account for three-quarters of jobs (91 out of 124). They dominate the table to a lesser extent only because of their shorter tenure at the centre. The position at Machakos R.I.D.C. was similar to the other two: in metalworking 4 out of 16 clients (covering all clients since inception of the centre) accounted for 63 per cent of jobs; in woodworking 5 out of 30 clients accounted also for 63 per cent of jobs.

Clearly the existing Centres have substantially failed to service local craft industry. The logical solution would seem to be either to take service facilities to the client, through the extension service (a policy already attempted and documented particularly at Machakos) or to bring the clients to the Centres, these re-designed in such a way that they are capable of servicing large numbers of artisans. The latter approach will be the basis of the system of workshop clusters recommended presently.

Though the utilization of machines at Embu shows the same pattern as that at Nyeri (and Machakos), an interesting difference is the much greater degree of utilization of the woodworking shops at Embu. Excluding the resident or semi-resident clients, and those who used the facilities very rarely (less than 5 times in 15½ months), 19 clients used the facilities 228 times, an average of 12 times each, compared with 5 clients at Nyeri

Metalworking*				Woodworking**			
No. of clients using workshop	No. of clients nos.	%	No. of jobs nos. %	No. of clients using workshop	No. of clients nos. %	No. of jobs nos. %	
40 or more times	3	13	179 81				
30 and under 40 times	0	0	0 0				
20 30	0	0	0 0	15 or more times	3	15	74 56
10 20	0	0	0 0	10 and under 15 times	0	0	0 0
5 10	2	9	14 6	5 and under 10 times	5	25	35 27
3 or 4 times	3	13	10 4	3 or 4 times	4	20	14 11
1 or 2 times	15	65	19 9	1 or 2 times	8	40	9 7
TOTAL	23	100	22 100	TOTAL	20	100	132 100

Table 6: Number of clients using metal and woodworking machines at Nyeri R.I.D.C.

* data covers twenty two month period March, 1973 to January, 1975; ** data covers eighteen months period July, 1973 to January, 1975).

Metalworking		Woodworking			
No. of clients using workshop	No. of clients nos. %	No. of clients using workshop	No. of clients nos. %	No. of jobs nos.	No. of jobs %
20 and under 30 times	2) 10) 50) 40)	75 or more times	2) 4) 237) 39)	237	39
10 " " 20 " "	3) 5) 15) 25) 41) 91) 33) 73)	50 and under 75 times	2) 6) 4) 12) 108) 406) 18) 67)	108	18
5 " " 10 " "	2) 10) 11) 9)	20 " " 50 " "	2) 4) 61) 10)	61	10
3 or 4 times	3) 15) 10) 8)	10 " " 20 " "	9) 19) 121) 20)	121	20
1 or 2 times	10) 50) 12) 10)	5 " " 10 " "	9) 17) 46) 8)	46	8
		3 or 4 times	3) 6) 10) 2)	10	2
		1 or 2 times	22) 46) 24) 4)	24	4
TOTAL	20 100 124 100	TOTAL	48 100 507 100	507	100

Table 2: Number of clients using metal and woodworking machines at Embu R.I.D.C.

(*data covers 15-16 month period October 1973 to January, 1975; **data covers 15-16 month period September, 1973 to December 1974).

with 35 jobs. Since market demand and the number of interested artisans is most likely much greater in Nyeri, this result probably reflects the unfortunate location of the Nyeri centre at some considerable distance from the town. The location decision at Nyeri does not reflect much understanding of the businesses being served, particularly the fact that the workshops largely retail their own products and require proximity to potential customers. In this regard the Machakos R.I.J.C. is also poorly located, despite the wide choice of suitable sites available nearer to the town centre.

(ii) The offer of repair facilities for local small industry

Even if the centre were not servicing local industry through regular use of its machinery and equipment, it might be important in providing facilities for occasional repairs which, though occasional, might be crucial to the businesses concerned. In rural areas very far from the manufacturing centre in Nairobi breakdowns may cause very great inconvenience and cost, so that the provision of this service might be of significance. The Nyeri centre keeps a separate repair shop, the largest, housing the most substantial equipment, and keeps a separate record.

Table 8 shows the number of clients using the machinery for repair jobs over a 19-month period. Clearly the number of jobs carried out is extremely low. The repair facility might be valuable even if used only once by a client; but, given that alternative private commercial repair facilities exist in Nyeri, most of the 1-2 time users could not be considered as funding the repair facility particularly useful. In general we

Repair Workshop*	
No. of clients using workshop	No. of clients
10 and under 20 times	4
5 " " 10 "	1**
3 or 4 times	5
1 or 2 times	37
TOTAL	47

Table 8: Number of clients using the repair workshop at Nyeri R.I.D.C.

(*data covers nineteen month period June 1973 to December 1974; **secondary school only).

can say that only 4 or 5 clients over the 19-month period have found the R.I.D.C. especially useful as a repair facility serving their businesses on a regular basis (one of these is a resident client). Even if regular the service may not be a major one or, for the centre, remunerative: one client was mainly re-welding broken backs on blades. If there is scope for some kind of machinery repair service (or maintenance) in the rural areas, and there may well be, the proper approach would appear to be extension, offering repair or service of machine on site rather than at the centre; but this has not been an element in the extension approach used, and this potential need has not been investigated.

(iii) The provision of training and skill improvement

The centres all have classrooms and are thus well equipped to organise courses. On the whole these do not appear to have been much used, though this is not true at Embu where about nine courses were held during 1974 (often for just one or two days) in woodworking, especially, welding, use of spraying equipment, and bookkeeping. This itself suggests scope exists for this service, and the variable level of craftsmanship and product quality in woodworking especially, which is a major difficulty for example in securing contracts from government and other institutions suggests it also. At Machakos only 16 people seemed to have attended a course (there were two) during 1974, reflecting to some extent the emphasis on the field extension approach at that centre, although skill-improvement has not been an explicit ingredient of this approach, as perhaps it might have been. Quite a lot of on-site training has been done at Machakos, nevertheless. Some economists have argued that, within the field of education, the highest economic returns are likely to be in adult education, particularly within peasant agriculture.¹¹ This would certainly indicate that the returns to further education and training of people engaged in rural non-farming activities might be worth investigating. Whether this is best carried out at rural enterprise premises or, given the costs of travelling, at the R.I.D.C. is uncertain.

(iv) The provision of capital through the R.I.D.C.

Since, as we have suggested, lack of capital is an important constraint on the development of craft enterprises as well as medium

11. See G.K. Helleiner, "Structural Change in Africa", in The Widening Gap, edited by Barbara Ward et al, Columbia University Press, 1971, p.101.

enterprises, it is worth looking at the role played by the R.I.D.C's in extending credit. In particular it will be useful to examine how loans have been distributed as between craft and medium industry, and secondly how loans to craft industry especially have been allocated.

Client	Type of enterprise	(a) Value of own capital in machinery and equipment (Kshs)	(b) Amount of loan excluding generator (Kshs)	(c) Total amount of loan (Kshs)	(b/a) (%)	(c/a) (%)
1	Sawmilling	10,500	16,000	45,000	150	429
2	Ox-carts	2,500	7,000	27,000	280	1080
3	Woodworking	1,900	12,000	30,000		
4	Bicycle repair	3,700	7,000	25,000		
5	Woodworking	1,000	16,500	29,500	1650	2950
6	Ox-carts	1,000	5,000	18,000	500	1800
7	Metalworking	3,910	21,000	21,000		
8	Wood and metalworking	9,600	19,040	19,040		
<u>Tool Loans</u>						
9	Woodworking	Nil (using centre)	2,355	2,355	∞	∞
10	"	1,000	750	750		
11	"	1,400	790	790		
12	Leather products	Nil (New business)	3,000	3,000	∞	∞
<u>Raw material loan</u>						
13	Woodworking	-	3,000	3,000	-	-
TOTAL		36,510	113,435	225,435	-	-
Table Average:		3,0534	Average, excl. tool loans	26,820		

Table 9: Loans distributed by Machakos R.I.D.C.

Table 9 shows the loans distributed by Machakos R.I.D.C. This excludes materials given on credit. The most obvious comment is how small the number of loans is: 13 in all, and only 8 excluding tool and material loans. Thus only a small fraction of centre clients obtained loans (a few others obtained loans from other sources) and a negligible number in relation

to the number of entrepreneurs in the area. Thus despite the lack-of-capital problem of most craft-entrepreneurs in the area, the R.I.D.C. was not able to make any significant impact ^{on the problem.} The question of equity may also be raised: while the mean value of machinery and equipment possessed by the clients serviced was about K.shs 3000/-, this certainly larger than the modal value for all entrepreneurs in the area, the average value of the loans given (excluding tool loans) was K.shs 27,000. The value of such loans ranged up to 3000 per cent of that of the client's own equipment. Thus if the same funds had been used for tool loans of K.shs 1000, 225 clients could have been assisted rather than 13. Though the Machakos centre has given only four tool loans, it is considered by the other centres to be leading the way in this regard, so that it may be assumed that the position elsewhere is no better. This suggests that an alternative form of organization is required which can facilitate the distribution of smaller loans among a large number of entrepreneurs; it will be argued presently that the mini-estate could provide this. It may be noticed also that no loans were granted for the improvement of premises, though many entrepreneurs lack these altogether. It may be noticed that about 50 per cent of the total lent was for 6 generators to provide power, 5 of the six in rural areas; it is difficult to say whether the adverse distributional effects on other rural entrepreneurs caused by the increased competitiveness of these 'power-driven' craft-businesses will be outweighed by the long-run advantage given to rural production over urban. This should clearly be seen as an experiment, and the results monitored. Finally it may be noted that in Machakos loans have been aimed at upgrading craft-entrepreneurs, particularly in woodworking, rather than assisting varied medium-scale enterprises.

Apart from tool loans, ordinary R.I.D.C. loans must be repaid over 6 years, except that only interest need be paid during the first year. Tool loans must be repaid directly. Because of the one-year moratorium on ordinary loans, it is too soon to assess whether there will be repayment problems. On the other hand if there is a failure at this stage to pay interest, it might be presumed that there will be even greater difficulty in obtaining repayment of the capital. Table 10 gives some indication of the portent in the case of Machakos. Though the sample is small, and the scheme in its initial stage, a repayment rate of, say, 50 per cent is indicated for large loans, which is not particularly good.

Large loans (interest only due)			Small loans (interest and loan repayment due)		
Loan	1	100	Loan	1	100
	2	83		2	83
	3	50		3	50
	4	0		4	20
				5	0

Table 10. Amount unpaid as percentage of that due up to December 1974, Machakos, R.I.D.C.

That for small (tool) loans does not appear much worse. It would appear, however, that loan repayment might develop into a problem; if, as suggested presently, a mini-estate approach can help to reduce this, it would be something in its favour.

Table 11 shows the size distribution of loans given through the Nyeri R.I.D.C., where the opportunities for granting loans are considerably greater. Though the number is greater than at Machakos, the number is still quite small. The mean value of loans given was K.shs 30,000/-, approximately, and the mode K.shs 25,000/-. No tool loans were

Amount of loan (K.shs.)	No. of Loans
0 and under 5000	0
5000 and under 10,000	2
10,000 " " 20,000	4
20,000 " " 30,000	12
30,000 " " 40,000	2
40,000 " " 50,000	5
50,000 " " 60,000	3
60,000 " " 70,000	1
Total value of loans = 870,920/-	29

Table 11: Loans distributed though the Nyeri R.I.D.C., May 1973 to December 1974.

given, unlike Machakos. Embu R.I.D.C. had granted only 7 loans, of which two were tool loans, by January 31st, 1970, the total granted being K.shs. 160,000/-.

(v) Supply of materials under bulk purchase

The main material stocked and distributed by the centres is wood; the centres have a revolving fund for the purchase of wood which is, however, quite small. The main objective of the service is to provide for the proper seasoning of the wood. Wood is not delivered to clients (except at Embu in town) so that the biggest users, at Nyeri, especially, are resident clients whom the centres were not designed to service. For non-residents the supply of Nyeri R.I.D.C. can scarcely be a convenience, given the possibility of buying closer at hand in Nyeri town. Since artisans are not concentrated around the centres, much of the advantage of a convenient supply is lost, while the low level of sales means economies of scale are not tapped with a view to giving the centres a price advantage over local suppliers. At Machakos, however, supply of materials has been more important partly because of the policy of extending short term credit for their purchase. The enthusiasm for the latter among clients here no doubt reflects their shortage of any kind of capital, including working, and indicates the scope for the expansion of such a scheme, particularly under more suitable conditions.

The bulk-purchase scheme has scarcely operated in respect of metalworking, though the distribution of iron bars, for steel windows, and metal drums, for making water containers, has been significant for example at Embu. At Nyeri out of 77 sales 50 were only for solder, and half the remainder for hacksaw blades. It may be noted that the supply of sheet metal through the corporation was the mainstay of the metalworking activities operating under the umbrella of the National Small Industries Corporation in Dar es Salaam in 1970, and it is probable that the possibilities for the supply of materials for metalworking have not been adequately investigated, though this may not be economic without transformation of the present centres.

Other centre activities, such as the teaching of bookkeeping and the introduction of new products, will best be considered under extension.

Problems of the Extension Approach

The main emphasis in the R.I.D.P. has been on extension, the rationale for this being that in this way it should be possible to reach a larger number of entrepreneurs and thus to spread the benefits of the programme more widely and equitably. This is true of all the centres, but has been taken furthest at Machakos. Here a particularly great effort was made to reach clients in small centres located very far from the main township, so that out of 33 'intensive' clients mentioned in a report 16 were located more than 40 kilometres from Machakos, and three were located more than 140 kilometres away. The Machakos centres has also produced its own comprehensive evaluation of their extension experience.¹²

Under the R.I.D.P. clients are divided into 'intensive' and 'extensive' clients, the former being eligible for more contact hours and much closer support. Assistance to the former is supposed to be given in accordance with a 'standard working plan' (SWP), under which at least two new products should be introduced to the client, the client's two main products should be made at the centre under technical supervision (to improve quality), at least one jig or tool should be introduced, and the client is to be supplied with cash and ledger books.

One point may be made straight away regarding the extension approach. Up to April, 1974, progress with the extensive clients had not in general gone beyond their registration, so that it is doubtful whether this approach is actually effective in reaching a large number of clients.

Even with regard to the intensive clients, the extension approach is now generally considered by R.I.D.P. staff to have failed. In February 1974, 131 out of 205 clients, or 64 per cent, were considered to have made no progress as a result of extension. The Machakos report referred to concluded that

"....it must be considered a reality that R.I.D.P. is not able to raise the general level of the entrepreneurs and their employees.... it is difficult to measure any improvement of the employment situation etc. over a relatively short period when work is done with already established entrepreneurs ... they are satisfied with their present situation, are too old to be receptive, etc. ...

... any advanced (established) client considers the presence of the technician as a disturbance..."

12. D.A. Edebe and K. Geels, On Extension Service at R.I.D.C. Machakos, April, 1974.

However it is not clear that the failure of the extension approach was due to lack of responsiveness among clients so much as the lack of concrete advantages being offered. Up to the 1974 Conference, at any rate, it was not clear precisely what the extension consisted of or should consist of.

The offering of advice on lay-out of the workshop, for instance, and similar 'professional' advice, is certainly more appropriate to factory lay-outs rather than to rural artisan establishments employing three or four people. This form of assistance was acknowledged already in 1974 as not worth pursuing.

Out of about 100 clients in Machakos, some 12 clients received fairly intensive assistance mostly amounting to some 20 to 30 hours, in bookkeeping and price calculation. These efforts were clearly unsuccessful in five cases and no results are reported in another three: partial results appear to have been obtained in no more than 3 or 4 cases out of 12 or, one could say, out of the 100 clients. This is not too surprising: there is not much evidence elsewhere of success in converting craft industrialists to bookkeeping. This service is one which could in any case have been considered no more than a bonus to more fundamental forms of assistance.

In addition to bookkeeping, the element in the working plan which appears to have been taken most seriously in Machakos is the 'pushing' of two new products. Unfortunately product development has not reached the stage where clients could be introduced to profitable new lines. The products proposed to clients there, with the number of clients recommended the product, have been as follows:

Wood Products

Maize sheller (18 clients) wheelbarrow (15) folding chair (7)
folding table (4) African chair (4) water cart (2) deck chair (2)
plough rims (1) safari chair (1) hand planter (1) toy trains (1)
concrete box (1)

Metal Products

coin box (1)

Other Products

Soil cement and sand blocks (1)

The reason for the reluctance of clients to accept these products, except in order to please centre officials, is clear: they could not sell them. The files indicate that the following clients appeared to be successful in finding market outlets:

Wheelbarrow (1) folding chair (1) folding table (1).

In addition some clients produced samples. or the R.I.D.C. itself: water cart (2) folding chair (2) deck chair (1). What is peculiar is why the centre should have persisted in its efforts to convert more and more clients to the maize sheller and wheelbarrow, particularly the former, when there were no sales. This could hardly have impressed clients with the financial know-how of the centre.

The evaluation of assistance forms in the 1974 conference report puts at the top (as 'undoubtedly feasible') bulk purchase. The viability of this for a scattered client extension system is, however, dubious. The centres lacked the capacity to deliver materials to clients residing outside the township, except for small items such as solder, mentioned in respect of Nyeri.

Various statements imply a degree of uncertainty about the assistance forms to apply: the 1973 report says that 'a really systematic planning of the extension services for the technicians has not been possible due to lack of transport facilities, especially transport of small machines, tools and materials.'¹³ In Nyeri it was reported for the last quarter of 1973 that it had been possible to carry out less than 15 per cent of the assistance planned and specified in the client's Working Plans. Whereas all centres obtained Volkswagen vans in September-October, 1973, these 'had not started operations after six months': suggesting uncertainty regarding the assistance to be offered.

Part of this uncertainty may be due to the inappropriateness of the form specifically for craft industry as compared to somewhat larger enterprises for which more sophisticated project planning is needed. It may also be true more fundamentally that the extension service analogy, the parallel with the agricultural extension service, is more attractive than appropriate, and exaggerates the technical and economic advice which the service in practice is likely to be able to dispense, given the heterogeneous nature of industrial enterprises and the limited expertise likely to be available at R.I.D.C's.

We may note further that a major problem associated with the extension approach is the cost of transportation. Mileage costs raise the cost of one/^{hour} technician/client contact how to extremely high levels.¹⁴

13. para. 2, 3, 1.

14. P. Kongstad estimates these as of the order of 150-200 shs. per hour, and has recently made a detailed analysis of the impact of transportation costs on the costs of advice.

Such rates may not be sustainable by low income craft enterprises unless the advice and assistance communicated is capable of resulting in more fundamental change than it has done so far. There is, moreover, always a danger of misuse of vehicles in the hands of parastatal institutions, particularly with the sort of itineraries planned here, which would raise costs.

Finally the main reason for the lack of receptiveness to extension is that it fails to recognize the most important need of the artisans: capital. This need is readily apparent from a scrutiny of clients' files which indicate that their main interest is usually for financial assistance. Moreover a check of clients using the Machakos centre showed a considerable proportion lacked, proper premises and were working under 'shades' as protection against sun and rain: in these circumstances other forms of assistance appear secondary. Lack of sufficient tools is a general problem, however low the cost of these. Access to power, related to the problem of premises, is a crucial constraint. The extension approach has done little or nothing regarding this capital constraint, and indeed its costliness has absorbed funds that might otherwise have been available.

The potential advantages of Workshop Clusters

We have therefore seen that the existing centres have been excessively costly and have served too few people; at the same time the extension approach has not been successful. What seems to be required is an intermediate solution somewhere between the estate approach and the extension approach. The National Small Industries Corporation workshops at Kisarawe Street in Dar es Salaam are rather interesting in this respect. These consisted of about 100 simple cubicles, made with mbeti sheets, which were rented out to artisans for about 30 shs. a month only. Central facilities were provided for woodworking, these to be paid for as they were used. These compact workshops, occupying a relatively small piece of waste land, housed some 400 artisans, the size, in employment terms, of a substantial factory. Something along these lines is indicated here, what may be called a mini-estate or, to avoid confusion with the industrial estate concept, a workshop cluster. Workshop clusters could be substantial employment creators, and would have a number of important advantages as follows:

The Provision of Premises

Kristensen may be right in his suggestion¹⁵ that the rate of capital accumulation among many artisans could be higher. But taking preferences as given, premises and lack of tools appear quite critical among artisans. These things, and the lack of capital generally are named repeatedly as serious handicaps, as indicated in Table 12. In Dar es Salaam, at least, where the premises offered were rudimentary, and no tools or machinery were supplied apart from the central saw facilities,

Problems	%	Problems	%
Plots and premises	13	Lack of electricity	6
Raw materials	15	Bookkeeping	5
Production methods	10	Marketing and sales	5
Lack of skilled manpower	3	Unknown problems	12
Lack of tools and machinery	32	Total no. of clients' problems recorded = 882	100

Table 12: Clients distributed by recorded problems, all centres, 1973.

Source: 1974 Conference Report, Table 12, 27.

the queue for admission to premises was huge: the 100 huts could have been filled several times over. The reluctance of tenants to leave the R.I.D.C. workshops (admittedly more lavish), about which the R.I.D.P. management complains bitterly, is perhaps an indication of a similar situation in Kenya. One of the obvious advantages of supplying capital by provision of premises is that of a readily repossessable loan: in contrast cash loans have distinct drawbacks as East African experience readily shows. The workshop-cluster system should facilitate loans-in-kind for equipment and materials. Failure to repay should mean eventual eviction from the workshop, which would be an important sanction.

The provision of common facilities

The competitive advantage of factory production may be reduced by the provision of one or two large pieces of machinery as a common facility for the individual artisan-units. In Nyeri it was noted that a 'characteristic feature' was the clients' coming in from outside to have

15. Conference reports.

work done in the centre. It is rather interesting to note that when one such entrepreneur earned 30 shs. for a job carried out in the centre for 15 shs. there was considerable indignation, and his access to the facilities subsequently restricted: this would have been better seen with relief as an indication of positive returns from such machinery.

In rural areas small clusters could be built around the crucial common facility of a generator, to provide power. As already mentioned, the practice of offering loans for generators to particular individuals in small centres should be discontinued in favour of establishing power as a common facility to serve simultaneously a group of people and a variety of rural non-farming activities.

Bulk purchase of materials and the provision of storage

The bulk-purchase scheme at Machakos, although quite limited, was described by the centre as 'the best thing here'. The system of workshop clusters should permit considerable increase in the scope for bulk-purchase activities. The case for these is two-fold. Because of the lack of a well established craft industry, demand for materials tends to be insufficient for satisfactory supply through local dealers: expansion of the sector under the programme would expand supply and demand for materials simultaneously. Outside clients could continue to purchase materials from the centres, which would now be much more widely distributed. Secondly, artisans at present have to purchase materials at retail prices, and in up-country centres at high retail price. Bulk purchase should permit supply at wholesale prices and thus more effective competition with factory production. Finally, in metal-working there is the particular problem that a principal raw material is scrap metal of various types, which is more plentiful in the towns, particularly Nairobi. Collection of bulk supplies of such scrap through the R.I.D.P. would make a substantial difference.

An important element in the bulk purchase system would be storage facilities distributed in an optimal way throughout the system. This should mean not only cheap and speedy delivery, but also a wide range of choice of materials. Storage could initially be at mini-estates or main clusters only, with clients at smaller clusters and outside clients travelling to make purchases: once the system is in full swing a more ambitious system of delivery might be organized on a commercial basis.

The R.I.D.P. already has the aim of bulk-purchasing materials, and has embarked on this. More than anything, however success depends on the supply of similar materials to a large number of clients. Present numbers of intensive clients are far too small, while only the scheme proposed would provide the product uniformity required to reap economies of scale.

This is one point where the programme's stated priority for finding new products and new activities to promote is in conflict with the need to establish a substantial foundation in terms of stable activities. This search for new activities should be in addition to and not at the expense of immediately realisable goals.

It should be admitted that a quasi-government organization such as the R.I.D.P. is prone to various types of inefficiency in carrying out an essentially commercial function such as the bulk purchase and re-sale of raw materials. The point is that private entrepreneurs are not performing this supply function adequately at the moment, mainly because the sector which they would supply is currently too dispersed, disaggregated, and of low productivity. The organization of raw material supply should be seen as primarily a development function to assist in the establishment and organization of the sector on a sounder basis: once this is achieved, ordinary commercial channels are likely to be interested and able to perform this function.

A Medium for Extension

With the exception of premises all these advantages, common mechanical facilities, the provision of power, bulk purchase of materials, loan supervision, are all associated with centralization. There are a number of other such advantages. Extension to artisans is likely to be very much easier. Referring to a Machakos client, for instance, it is said that

This is one of the few cases where we have been able to change the attitude of a person, and it is fully because we have had the person 'under pressure' (that is, at the centre) for several months.

This suggests extension may only work where clients are organized in workshop clusters. Even though training courses can be organized for non-resident clients, considerable reluctance to release employees for training has been noted among clients. This would be much more readily organized where apprentices and other employees could be released for training on the spot for occasional afternoons and for specific jobs. An interesting phenomenon remarked in the M.S.I.C. estate in Dar es Salaam was the informal (and rather inefficient) system of apprenticeship.

operating among the ~~tenants~~: an obvious opportunity exists to strengthen this informal on-the-job system as an alternative to 'technical school', training. This could also be used to 'graft' village polytechnic school leavers into ongoing small enterprises.

Product development and the provision of a production capacity

We shall see presently that while a number of apparently suitable new products have been developed at the centres practically none have actually been put into commercial production. If, for example, a local version of an imported product can be produced more cheaply, distributors are likely to lose interest if a ready supply of the local product cannot be guaranteed. But centre technicians who have developed promising products, have been severely handicapped by the absence of a production capacity. The workshop clusters could fill this gap, the manager allocating orders to groups of clients at the workshops and supervising to some extent the quality and homogeneity of the work. Without this, in fact, efforts at product development seem doomed to continue to yield no tangible commercial results.

The other advantage of a 'production capacity' is the possibility of organising specialization among artisans, to produce different component parts of a product, something which, initially at least, would require a more direct managerial input by the centre.

Marketing and publicity

An important potential form of assistance to clients at the centre is assistance in marketing and the obtaining of orders, particularly larger orders from local institutions. Even without this, the experience at Dar es Salaam shows that the concentration of a large number of artisans in a 'mini-estate' itself can assist marketing by attracting traders to the site. If the major workshop clusters were better located within the main townships near to the consumers (as the existing rambuckle informal sector premises invariably are already), the volume of direct sales to consumers might be greatly increased. Finally, a network of major and minor workshop clusters, by offering visible evidence of the existence of the organization could provide useful publicity of a general kind attracting various types of entrepreneurs to seek assistance.

A proposal for a system of workshop clusters

Craft industries are concentrated in the townships and minor centres, although also distributed within the rural areas themselves. The Kenya Development Plan specifies urban and rural potential growth centres in these districts as follows:

District	Number of urban centres	Number of rural centres	Total
Kakamega	2	9	11
Nyeri	2	5	7
Embu	1	3	4
Machakos	2	9	11
Total	7	26	33

Table 13: Potential growth centres in the four Districts¹⁶

Source: Kenya Four-year Plan 1970-74 (p.88).

A possibility to aim at would/a ^{be} system of major and minor workshop clusters. The major clusters, or mini-estates, at urban centres might comprise 30 or 40 units and the minor clusters at rural centres 5 to 10 units. Some, but not all of the minor clusters would have a generator. The primary ingredient would be the provision of lockable premises. The urban and rural centres enumerated in Table 13 indicates that this would give a quite widely-spread network of facilities, and not an overcentralized system. The so-called 'Kisumu Model' of development which has been widely discussed in K.I.E. and R.I.D.P. is for a regional system comprising a nucleus estate plus satellite R.I.D. centres operating as a decentralized organization. This could be modified to make the nucleus industrial estate a regional centre at which would be based a more diversified staff (still small) of advisors who would oversee not only major/minor cluster operations but consult on medium-scale industry possibilities in the region. The R.I.D.C's would not be single centres but the suggested network of major workshop clusters, under local managers, and minor clusters. A bulk-purchase system would be operated on a regional basis with a main store at the nucleus estate and sub-stores at mini-estates (major clusters) with a view to economizing storage and raw material transportation costs. The system should operate to minimize staff overheads.

16. Quoted in P. Kongstad et al, Rural Industrial Development, Kenya, Background Report, I.D.R. Paper A 72. 10, June, 1972, p. 21.

It is important to underline that the workshop-clusters would cater for craft industry of different types and not act as industrial estates of moderate-sized establishments. Provision for expansion of craft enterprises could be made by the allocation of two or three of the adjacent standard-sized units. This will also permit the offer of larger premises to more established businesses or larger cooperative groups. The quality of the facilities offered should be within the capacity to pay of relatively low-income artisans. Specifically the buildings and equipment should be such that the monthly depreciation should be covered by the rent or rate of depreciation which such artisans can afford.

It is worth giving some order of magnitude to this. Suppose the loan must be paid off over ten years at 8 per cent interest and that on top of machinery loans and land rentals the client can afford to pay at the rate of 600 shs. per annum, or 50 shs. per month. The cost of the premises should not exceed shs.3,333. At a 5 per cent interest rate this cost could go up to shs.4,000. Against this the prototype shed being built experimentally at Embu as 'appropriate' technology is estimated to cost shs.25,000. Ten sheds built at Kakamega . . . cost approximately 50,000 shs. each. What suggests itself is some standardized pre-fabricated units which can be produced cheaply and readily assembled in any location, perhaps to form different sized sheds out of standardized pieces.¹⁷

A comparison with existing proposals

The above proposals are not too different from current ideas within R.I.D.P. for having site-and-service schemes (also called 'mini-R.I.D.C's) and industrial promotion areas. The suggestion for having workshop clusters built around a generator and common facilities in rural centres has been discussed.

These ideas however do not constitute fully defined proposals; the commitment to them, particularly within K.I.E. and in terms of financing is uncertain; and they appear inconsistent with Development Plan proposals reviewed at the outset which are still being followed with the conventional centres planned for Voi and Malindi. The use of the terms 'site-and-service scheme' and 'industrial promotion area' themselves

17. Since writing this section I have discovered advanced proposals at Machakos for sheds of flexible construction at an estimated cost of 4500 shs., very close to our figure. This proposal has not yet been taken up at other centres who operate independently in this regard. Even at Machakos there is still a reluctance to take over direct responsibility for the construction of shed and operation of the estate.

suggest ambiguity, the former implying a limited form of assistance with the clients themselves determining the form of permanent structures, and the latter implying a form of industrial estate located in urban rather than rural areas. Officials of the R.I.D.P. still favour letting the local authorities run the I.P.A's on grounds that the centre "avoids a lot of administration and can pull out at the right time". In fact while the centre would avoid this administration, this would only be passed to the local authority, which appears a less suitable agent: in particular the local authority would be quite unable to carry out the activities proposed here for the major workshop clusters. The centres still have in mind also the giving of 'temporary support to establish clients' rather than a major developmental input.

Secondly, while the centres have recognized the necessity of building some sort of sheds around the existing structures, they appear to be highly uncertain what form these should take (an architect is due to investigate), they have in mind a variety of design rather than cheap standardized structures, and ^{some} existing proposals are nowhere near the appropriate figure of around 4000 shs. per unit. There remains therefore a gulf between the centre proposals and the shanty-town craft-industry areas which already exist in these townships, whereas the aim should be to re-house a substantial proportion of such artisans. This might bring the work of the centres still nearer to ^{the} reality of the local economy. For example one centre stated it could ^{not} make beds (one of the items suggested by the Tanzanian household survey) in competition with the local product being made with old tyres and sold at 40 shs.: clearly if the current producers were transferred to the centre's workshop cluster the centre would in effect be producing these and ways might be found to improve the product, increase production or, through marketing sales.

We have indicated that there is as yet no consensus among the centres regarding the type of sheds to be built at the centres or certainty that the K.I.E. are fully committed to the Machakos design. No minor workshop clusters in rural centres are definitely under way, despite a two-year old proposal, for example, for Manyatta in Machakos. Although the strongly negative report on extension experience in Machakos was published in April, 1974, a year ago, the centres continue to operate as before. As funds for further extension work are now running low the policy of the centres for the coming year appears indeterminate. Nor

is it certain that the emotional attachment to the extension approach to craft industry has been abandoned. Despite the clear lack of effectiveness of the extension approach indicated in the 1974 report, the same report clearly pursues this approach in its recommendations rather than any modified estate approach. The latter is classified¹⁸ as being 'impossible to administer', a fate which one might have judged more likely to befall the extension service. It is suggested that in order to promote the field extension service "the centres might be started with only an office building with 2 or 3 rooms and a garage. The staff would then be forced out in the field...."¹⁹ Similarly it was intended to reinforce the previous practice of offering clients only a limited stay at the centre workshops by issuing contracts in advance to ensure that no one would stay for longer than six months.²⁰ The conclusion is that in future the centre workshops should not be used as client workshops at all.

These points are summarized in the following paragraph, which contrasts very directly with the proposals favoured here:

"It has been impossible to administer this kind of assistance (provision of a workshop at the centre), when tried. This might be because no contract has been made with the client in advance, but more likely it is a weakness with the assistance form as such. In the future the centre workshops should not be used as client workshops. And no stay at the centre should be permitted without signing a contract for the stay. The proposed sheds attached to the centre must also be used in a deliberate way, and not just as cheap premises for a few lucky entrepreneurs. The workshops should be rented out on a temporary basis with no leases exceeding e.g. one year. If this is not done from the very beginning, the centre might easily be reduced to a mini-industrial estate, and the extension services rendered outside the centre will be reduced accordingly."²¹

18. 1974 Report, p. 86.

19. p.74. It is not intended to criticize here the commendable desire to reduce unnecessary overheads.

20. In one or two places surprise is expressed at the reluctance of entrepreneurs to come to the workshops (under these terms): but it would seem rather unwise for them to leave permanent premises of their own, however rudimentary, for a 3-month arrangement elsewhere.

21. 1974 Report, p.86.

Diversification of Workshop Activities

The trades presently assisted by the RIDC's are extremely circumscribed, being almost entirely limited to wood and metalworking. With more appropriate siting of the centres within townships, it should be possible to diversify these activities considerably into motor repair work, masonry and construction, tailoring, gheemaking, and more specialized activities such as plumbing or electrical work or the manufacture of components and tools. Motor repair probably ranks with woodworking among the highly remunerative rural trades. The Embu R.I.D.C. has already successfully provided facilities for a motor car spray-shop. Thought would, however, need to be given to the most appropriate lay-out of the centres for facilitating such diversification.

Cooperation with Village Polytechnics

So far cooperation between the R.I.D.P. and the Village Polytechnics has been either limited or non-existent. And yet their activities relate to similar trades to an important extent. The Norwegian evaluation report on Village Polytechnics lists the courses offered:²² they include leatherwork (including shoe-making), blacksmithing, tinsmith/metal work, fitting and welding, electrical work, the last two relevant also for motor repair, another very popular course, masonry, plumbing, carpentry, tailoring, bicycle repair, and a few others. The need for village polytechnic leavers to be able to graduate into a more organized craft industry system is fairly clear.

There could in fact be important economies of scale in locating village polytechnics actually at mini-estates or, vice versa, new workshops clusters at existing polytechnics. The number of polytechnics at present appears to be heading in the right direction for this purpose: there are, for instance, eight in Western Province, generally in smaller centres such as Majengo.

The advantages would be:

- (i) some common use of machines, tools and personnel, and economies in administrative staff. At present polytechnics are suffering from a serious shortage of tools and teachers.

22. The Kenya Village Polytechnic Programme, A Report by an Evaluation Mission of the Government of Kenya and the Norwegian Agency for International Development, January-February, 1974.

- (ii) polytechnic leavers will know what to expect in the 'real world', having been trained within the atmosphere of the informal sector and inculcated with entrepreneurial ideas rather than 'schoolish' ones.
- (iii) they will more easily graduate to the sheds on the spot or to associated workshop clusters located further afield.
- (iv) their attachment will help to promote the centres as growth poles, and thus to publicize them as centres for technical advice and business consultancy generally.

By and large village polytechnic leavers at present have inadequate skills and managerial experience to start on their own: for this reason there should not be a policy of giving them priority in the allocation of sheds, but they should expect to move into positions of apprenticeship or assistance to established artisans, being assisted to independence only at a later stage, perhaps in groups.

Assistance in Marketing

An important market for craft industry, particularly furniture, in the rural areas, is the demand from institutions: public authorities, hospitals, schools and the like. With production capacity at the centres the R.I.D.C. management should be able to go much further in acting as intermediaries in obtaining such orders for distribution among entrepreneurs at the centres. Small-scale craft-entrepreneurs have also been handicapped in obtaining and handling such orders by the postponed repayment practices of most public authorities and institutions: a practice which has also affected the entrepreneurs' capacity to repay materials loans. A remedy for this situation would be for such institutions to place orders with the R.I.D.C. management rather than individual entrepreneurs, the former carrying the burden of credit. This would have the additional advantage of the R.I.D.C.'s being able to distribute larger orders among several units, and of being able to offer some supervision of the production.

There is of course a danger in institutions allocating orders to the R.I.D.C.'s, that such patronage may promote inefficiency. Management (and the institutions) should ensure that only competitive prices are offered to artisans for such orders.

Product Design, Appropriate Technology, and the Development of Low-cost Farm Equipment

One potentially vital area of the R.I.D.C.'s activities which has not yet been discussed is that of product development. Here we are not

referring to the improvement of skills and of the quality of products turned out by particular artisans. There appear to be two types of product in which the R.I.D.C's have interested themselves. The first are those which fall into the category of 'appropriate technology', products suitable for particular circumstances and situations in Kenya.

The centres, particularly the embryonic product development group at Machakos, have collated and explored a wide range of possibilities under this head, of which a few specimens have been constructed. Ideas include a donkey-cart, (as used in West Africa), a bicycle-cart, a wooden wheelbarrow (particularly for road work), school chairs (based on a Sudan model), wooden toys, a rotating hand planter (based on an American model), the maize-sheller mentioned earlier (from Tanzania), a kerosene-driven incubator, a soil-cement block press (from Ghana), housing components, a Kumasi pump, and a windmill/pump. Low cost farm equipment is considered more fully below.

The second category of products are modifications or copies of ordinary manufactured goods at present imported, but capable of being produced locally at much lower prices. Work in this direction has gone on particularly at Embu R.I.D.C. A bench-saw constructed by artisans at Embu has been sold commercially through Gilfillan and Co. at substantially below the imported price and is a superior product in that it can do two operations (crosscut and rip). Tools such as a G-clamp and flat bar clamp have been produced at the centre at a fraction of the import price which appear to be superior to the old-fashioned British design still imported. It is claimed that the whole range of woodworking machinery could be made much more cheaply: a bandsaw and a beltsander, for example, at a fraction of the price in Nairobi.

The possibilities here appear to arise partly out of conservatism in the import trade and the tendency to rely on traditional suppliers from a limited number of countries.

Despite the attractiveness of both categories of product little material progress has been achieved so far. Part of the problem has been the absence of a production capacity at the centre to permit the R.I.D.C. to back up the development of a suitable product in which wholesalers are interested by a capacity to deliver. As previous efforts run to waste in this way, the incentive for further product development is diminished. Secondly, in the case of experimental appropriate technology products, development at the R.I.D.C. can only be successful in collaboration with

Ministries (for example Ministry of Works for wheelbarrows, Ministry of Agriculture for agricultural equipment, Water Development for windmills and water pumps). Such collaboration has not yet been initiated. Finally such activities have so far been allocated relatively little attention of finance, most of which has been diverted by supervising a handful of 'resident' centre clients or to the extension service. The proposal for a fully-fledged Product Development Group at Machakos has not been developed, though an informal committee exists among the centres for the exchange of ideas.

It appears essential that a Product Development Group, embracing all the centres be allocated the necessary finance and staffing. Such staff should be competent engineers with an element of inventiveness and interest in appropriate technology.

There appears to be a particular need for concentrated efforts to identify, adapt and promote local manufacture of appropriate low-cost farm implements. To be successful, such efforts will have to be coordinated with a testing programme and farmer training and extension activities organized by the Ministry of Agriculture (and by the Ministry of Lands and Settlement in settlement areas). In as much as the Ministry of Agriculture is currently finalizing arrangements for an FAO/UNDP Agricultural Equipment Project that will focus on simple tools and implements suited to the needs of small-scale farmers, it appears that this type of coordinated effort is now a realistic possibility.

Up to the present time very little attention has been given in Kenya to identifying and promoting the use or local manufacture of low cost farm tools and implements suited to the needs of the country's small-scale farmers. Research and development work related to "intermediate technology" was supposed to have been one of the two main activities of the Agri-Service Station in Mbere, but in practice the work of the Station has been concentrated almost entirely on providing a subsidized tractor hire service. Toward the middle of 1974, two local farmers were hired as day labourers to train oxen, but there is nothing innovative about this activity. The Ministry of Agriculture appears to have provided very little support for this work on intermediate technology. This has been influenced by many factors which need not be reviewed here. It should be emphasized, however, that it is a formidable undertaking to identify, test and promote wide use of improved farm equipment. It was, therefore, probably unrealistic to expect the Agri-Service Station and the Mbere S.R.D.P. to carry out useful work in testing and promoting the use of this type of improved farm equipment without the support of a national programme such as the one that is only now being developed.

The failure to promote expanded use of low-cost farm equipment and local manufacture of such products is most unfortunate. Particularly with the sharp increase in fuel prices and in the cost of imported tractors, tractor-drawn equipment, and spare parts, only a small fraction of the country's farmers have sufficient cash income to be able to rely on tractor hire service. A heavily subsidized service such as has been provided by the Agri-service Station at Siakago has enabled a limited number of farmers to expand their cultivated area, but it would not be possible to replicate that type of programme so as to benefit a large percentage of farm households. Even if the Government of Kenya were able to make budget allocations sufficient for that purpose, it would be an inappropriate use of the Government's limited resources.

Although many farmers are using their own or hired oxen to supplement manual labor, the resource represented by the livestock available in rural areas is being grossly underutilized. With very few exceptions, only one animal-drawn implement—the 'Victory' mouldboard plough—is available. In general, oxen are used only for primary tillage, although in some instances the mouldboard plough is also used for inter-row cultivation, an operation for which it is not at all suited. It also seems likely, though this has not yet been demonstrated conclusively, that the traditional method of training and controlling oxen is much less efficient than the so-called Indian method. With the Indian method, a pair of oxen are guided by reins connected to a nylon rope (or metal ring) inserted through a hole in the nose. This technique makes it possible to control the animals more accurately, and it is also claimed that because oxen controlled in this way pull a plough at a steady pace, it is possible to get as much work output in a day from a pair of oxen as with a team of four using only yoke chains.

A steadily growing demand for a widening range of simple farm equipment would have a very favourable impact on rural industrial development as well as contributing to increased farm productivity. Much of this equipment could be manufactured with reasonable efficiency by small- or medium-scale workshops in rural centres, and gradual expansion of such production could make a significant contribution to increasing the technical and entrepreneurial skills available in the country's metal-working industry. Increased competence in metal working would facilitate expanded local production of consumer goods as well as farm inputs, and it would also contribute to the development of an indigenous capability for production and adaptation of machine tools. Increasing the size and technical competence of the capital goods sector is a key factor in making it possible to adapt imported technologies

to Kenya's resource endowment which differs so drastically from conditions prevailing in technology-exporting countries.

As already noted, it is no easy task to realize those potential benefits from expanded use and local manufacture of appropriate items of farm equipment. First of all, effective demand for such equipment is restricted by the limited cash income of the majority of farm households. However, a notable advantage of emphasis on this type of innovation is that it can be expected to lead to increases in farm productivity and output so that the purchasing power constraint is gradually eased as farmers are able to expand their output of export crops or of products to satisfy the increasing domestic commercial demand. (The availability of subsidized tractor hire service will, of course, tend to undermine the growth of effective demand for the simple, less costly type of equipment).

Secondly, a fairly difficult search operation is involved in identifying new items of farm equipment adapted to the needs of farmers in various regions. Moreover, the most significant increase in productivity will often result from the simultaneous introduction of equipment and tillage innovations, e.g. a shift from mixed cropping based on broadcast seeding to planting a suitable mixture of crops in alternate rows so as to facilitate the use of an inter-row weeder-cultivator. The need for devising appropriate equipment and tillage innovations appears to be especially great in Kenya's semi-arid "medium potential" areas. There is general agreement among experts on dryland farming that the mouldboard plough is poorly adapted to a situation in which moisture conservation is a primary consideration, but local research is needed to determine which of several alternatives - e.g. use of ridging ploughs for a ridge and furrow system or minimum cultivation techniques using a combination of a chisel plough or sub-soil or shoe implement and sweeps for weed control - is best suited to the soils and topography in different parts of Kenya's medium potential areas.

Third, equipment innovations are difficult to introduce to farmers. The requirements for demonstrations and "acceptance trials" and for training programmes are fairly demanding and require prior training of the trainers. Fourth, even simple equipment represents a fairly large cash outlay for a small farmer, so that the availability of credit is likely to be a more serious constraint than with a very divisible innovation such as hybrid maize seed and its associated inputs.

Finally, there are difficult problems to be overcome on the manufacturing side to ensure that growing demand leads to an expansion of local manufacture. The technical skills available in Kenya's small-scale metal-working firms are still at a low level and the range of tools and equipment available is distinctly limited. Experience in Japan, Taiwan, India and other countries that have achieved a considerable development of small-scale, rural-based industries demonstrates the importance of technical skills such as designing jugs and dies and of specialization among different firms.

The Agricultural Equipment Project and the programme for the intensified research on problems of dryland farming, which the Ministry of Agriculture proposes to initiate this year with FAO/UNDP support and other external assistance, should provide a stronger research base for promoting expanded use of a wider and better adapted range of farm equipment. However, adoption by farmers of new types of equipment is likely to be very limited unless steps are taken to train extension specialists in the use of such equipment so that demonstrations can be carried out and training provided at selected ETC's and other locations, e.g. Village Polytechnics, to create a nucleus of farmers capable of diffusing knowledge of the new technologies and providing contract services for a variety of cultural operations. Finally, there is a need to strengthen the capacity of the R.I.D.F. to provide practical technical assistance to encourage efficient local manufacture of farm equipment; and the establishment of workshop cluster or 'Mini Estate' as proposed above should make it easier to provide such assistance and also to encourage specialization among small-scale firms engaged in the manufacture of components or particular items of equipment. A number of the somewhat more sophisticated items of farm equipment are probably better suited to manufacture by the 'moderate-sized' establishments discussed in the following section. Furthermore, certain components which can be produced more efficiently by large-scale firms using expensive equipment or sophisticated processes should perhaps be imported or manufactured in Nairobi or another large industrial estate. Experience and technical expertise are too limited to provide definite answers to such questions at this time.

Suggestions regarding moderate-sized or medium-scale enterprises

As mentioned earlier, some internationally-used definitions of 'small industry' include establishments with as many as 100 employees. The craft industry establishments discussed here have less than 10 persons engaged, usually, and generally only 3 or 4. In comparison establishments of, say, 20 to 50 employees to which we now wish to refer might be called medium or even large scale, but to avoid confusion we shall talk about

'moderate-sized' establishments within the general category of small industry. The brief treatment of such industry in this report, and the concentration on craft industry, should not be taken as reflecting the view that it is any less important.

The R.I.D.C.'s have come up with a number of project proposals for moderate-sized establishments. At Embu, for example, proposals exist for raw-material based industries: sawmilling (4 establishments), sisal decortication (2), animal feed (3), milling (1), stone-crushing (1), tannery (1) and honey-refining (2); local consumer industries: dry-cleaning (3), garments (2), soap-making (1), leather goods (1), printing (1), bakery (1); and miscellaneous industries: garages (2), tyres retreading (1), electrical motor rewinding (1), blockmaking (1), paper bag-making (1), and nailmaking (1). Most of these are only under investigation at present and loans have so far been approved only for one sawmill, a tailoring establishment, a shirt-making establishment, a salt unit and a furniture establishment. The centres have in general found it very difficult to find viable projects and as a consequence, despite the foregoing list, there are very few moderate-sized projects 'on the ground' in the four areas. Such limited assistance as has been given has been in the form of loans, a function already covered by I.D.C.

What form of assistance it is currently proposed to give such establishments is not clear. The 1974 conference states, ironically, that while estate assistance is "too costly for general use" it should be utilized for the promotion of new industries "demanding intensive assistance in their initial phases". It is stated that "the estate should be seen as giving a very high support preferably to basic industries needed in the region".²³ In fact it is for just these enterprises that project planning, business consultancy and the extension approach generally should be most relevant as well as economically feasible; and given their heterogeneity, the advantages of centralization are less obvious. Many are likely to be raw-material oriented industries with dispersed locations such as sawmills, posho mills, sugar-processing, tanneries and canning plants.

Two fundamental reasons may underlie the lack of progress made by the R.I.D.C.'s in respect of moderate-sized industry. While there is some scope for further expansion of processing industry based on local products, many of the more obvious possibilities for such processing have long ago been taken up. Secondly, there is no policy of countering the centrifugal tendencies concentrating industry in Nairobi and Mombasa or

23. 1974 Conference Report, p.74.

of directing industries, through licensing, to provide some core to these proposed minor industrial centres. Without such a policy, there is little or no hope of these centres attracting ^{core} industries (except those exploiting a local material) and therefore of developing ancillary and feeder industries around these.

Generally speaking, one would not expect a locally-based R.I.D.C. manager or engineer to be in a position to offer significant consultancy services for the wide range of types of enterprise involved here, or to be in a position to indicate which industries should be allocated to or 'persuaded into' the area. This is not to say that they would not be capable of making project suggestions and for acting together as an intelligence network for transmitting proposals from local business for new projects. One possibility would be for the Provincial Trade Officer to be located, together with one or two consultants (at most) at the regional industrial estate, with the task of coordinating the intelligence/advice network for the region.

The Relation of the R.I.D.P. to District Planning and to a possible Small Business Development Corporation

The proposed regional system based on the 'Kisumu-model' - one industrial estate and 2-3 rural centres-needs adaptation. The most sensible arrangement would seem to be one regional centre and a system of district centres (major workshop clusters) and subsidiary or minor clusters. The regional centre would provide some coordination at the Provincial levels (providing consultancy services and storage facilities), while the latter system would be integrated with district planning. This system would be financially autonomous from the regional centre to permit closer integration with district-level operations, though it would purchase raw material and other supplies from it. This suggestion differs from the conference proposal for the regional estate to be the basic unit and administrative focal point, which would tie in less well with district efforts. The R.I.D.P.'s lack of financial independence under the K.I.B. up to the present time appears to have slowed the programme to a considerable extent.

The precise form and scope of the Small Business Development Corporation proposed in the Development Plan is now uncertain. The first requirement is for the SBDC (or whatever institution emerges) to recognize that a substantial part of its programme will relate to craft industry, and that the approach here will be somewhat different from that for 'moderate-sized' enterprises. Secondly, if the system of major and minor workshop clusters proposed here is adopted, with the greatly increased organizational input that this implies, it would seem unwise to attempt to incorporate the

promotion of trading establishments in the same organization. Separate arrangements should therefore be made for assistance to commerce. More homogeneity exists in fact between craft, and other small-scale industry in the rural areas and urban industry of this type. Indeed more small-scale woodworking establishments exist in Nairobi and other urban centres than in the countryside. Nairobi has the greatest concentration of artisans and craft industry in the country. A third point to be made, therefore, is that if the SEDC (or SIDC, Small Industry Development Corporation) is to be set up as an umbrella organization, it could comprise two divisions, an Urban Small Industry Division incorporating the regional industrial estates, and a Rural Small Industrial Division.

Summary of Findings and Main Recommendations

1. The detailed activities of the four existing RIDCs are examined, using job cards at the centres and client files, and assessed on the basis of the following potential contributions:
 - (i) servicing of craft and moderate-sized industry
 - (ii) offer of common facilities
 - (iii) provision of training and skill improvement
 - (iv) provision of capital
 - (v) supply of materials
 - (vi) bookkeeping and management advice
 - (vii) product development.

The results were comprehensively negative.

Recommendation: The existing centres should not provide the model for the 23 RIDCs proposed in the Development Plan and specifically for those shortly to be established in Voi and Malindi. A modified structure is proposed.

2. The KIE proposals (Development Plan) for industrial estates at Nyeri, Kakamega and Embu appear to overlap with the RIDP proposals. The research carried out suggests that the KIE proposal may be even less successful than the RIDC's have been, unless government policy with respect to location is revised.

Recommendation: this potential overlap should be scrutinized.

3. Policies have suffered from a failure to make a clear distinction between 'moderate-sized' industries and 'craft' industries, and to recognize that a substantial part of rural industry promotional activities will relate to the latter. The appropriate forms of promotion for craft and for moderate-sized industry are different.
4. Up to now the KIE and the R.I.D.P. have been inclined to different approaches, the KIE towards more heavily-capitalized centres with client assistance at the centre somewhat along the lines of industrial estates, and RIDP officials towards an extension approach with assistance at clients' premises.

Both approaches have been excessively costly (the estate approach because of excessive overheads in relation to members served, the extension approach especially because of transportation costs); neither have reached many clients or created much employment; neither have much changed the situation of clients.

5. The absence of content in the extension approach arises principally because of its ignoring the main constraint on the improvement of craft industry: the lack of capital in the form of premises, power, tools and materials.

Recommendation: Reliance on this approach should be abandoned.

6. Capability for loan distribution has been underutilized: what has been distributed has not been distributed in the most equitable way possible.
7. Some of the existing centres are badly located within the town area, and this location produces measurable variations in performance between the centres.

Recommendation: More attention should be paid to the site chosen, which should be as close to the centre as possible.

8. An alternative form for craft industry development has been considered which appears to have significant advantages.

Recommendation: This paper proposes an integrated system of major and minor workshop clusters:

- (i) Existing centres in townships would be transformed by building 30-40 cheap sheds or workshop units around the existing buildings.
 - (ii) in smaller rural centres smaller clusters of 5-10 units would be built around a generator and some common facilities.
9. The cost of such sheds should be such that artisan enterprises could afford to pay rent which would cover the full depreciation of the building. This means a building costing around 4000/- compared to an RIDP prototype being built at Embu of 25,000/- and actual sheds at Kakamega at 50,000/-. Sheds of the type required are being designed at Machakos, but need to be adopted as the general model.

Recommendation: Flexibly constructed sheds of the Machakos type should be adopted generally. Economies of scale in construction could be secured, and more rapid progress made, if these were built by the RIDC's for renting or sale rather than clients being left to build their own.

10. The integrated system of major and minor workshop clusters proposed represents a compromise between the estate and extension approaches. Its advantages would be: (1) by providing premises this removes a major constraint; (2) supervision of tool loans is facilitated; (3) capital can be provided to artisans in minor rural centres more equitably; (4) common facilities would be better utilized; (5) a national system of

bulk purchase of materials can be undertaken; (6) skill improvement, particularly for apprentices, would be easier; (7) 'wastage' in product development and innovation due to the absence of a production capacity to deliver orders would be reduced; (8) assistance to clients in marketing and the obtaining of orders would be facilitated; (9) placing of Village Polytechnic leavers would be easier.

11. Recommendation: The range of craft industries assisted can and should be expanded.
12. Recommendation: Village Polytechnics should be located adjacent to workshop clusters and vice versa.
13. A major objective of the RIDC system should be the development of appropriate technology products and competitive manufactured goods, especially tools. Some promising preliminary work has been done already. There appears to be a particularly important need to intensify work on identifying and adapting promising items of low-cost farm equipment. However, the success of efforts to promote local manufacture of such equipment will require a parallel programme of the Ministry of Agriculture to carry out local testing and to organize farmer training and extension programmes to promote wide use of items of equipment suited to conditions in various farming regions in Kenya.

Recommendation: More support should be provided for product development work with a particular emphasis on simple, inexpensive items of farm equipment.

Recommendation: The Ministry of Agriculture, in implementing the FAO/UNDP Agricultural Equipment Project, should emphasize the identification and promotion of farm use of simple equipment capable of increasing agricultural productivity which will simultaneously promote rural industries by stimulating demand for items manufactured locally.

14. So far the RIDC's have made a negligible impact (the granting of a very small number of loans only) on 'moderate-sized' rural industry. Most projects in this area have not progressed beyond the investigatory stage. The main reasons for this are (1) (1) possibilities for agri-processing industries have often already been taken up, and the new possibilities which exist are frequently raw-material dispersed industries not suitable for an industrial estate approach; (2) the main need, for loans, is already catered for by the ICDC; (3) RIDC personnel necessarily have only a limited capacity to evaluate potential industries; (4) most important, there is no policy of directing or persuading industries which might provide nuclei for the development of ancillary industry away from Nairobi towards other townships.

Recommendation: Project evaluation could be strengthened by a regional system combining experts at a regional industrial estate with managers of major district centres (major clusters).

Recommendation: Location policy should be re-examined to explore the possibilities of directing nucleus industries to other centres.

15. The scope of the proposed Small Business Development Corporation.

Recommendation: (1) the new institution should NOT incorporate assistance to trading enterprises, should concentrate on industry,

(2) it should comprise a Rural Small Industry Division and an Urban Small Industry Division, the latter incorporating major regional industrial estates as well as urban craft industry workshop clusters.

16. The Rural Small Industry Division would run the decentralized system of major and minor workshop clusters, organized on a District basis, to fit in with a system of District Planning.

Appendix: The Operations of Partnership for Productivity in Vihiga/
Hamisi S.R.D.F.*

Introduction.

The rural industry project in Vihiga/Hamisi S.R.D.F. is financed by a special USAID fund (US \$40,000 in 1974). The fund is administered by the privately sponsored quaker organization, Partnership for Productivity (PFP). PFP activities, results, and the implications of having a private organization run an SRDF project are discussed below. In October 1970 Partnership for Productivity commenced a pilot programme of small business promotion in Western Kenya. The core of the PFP programme has been loans and advice to individual businessmen, primarily traders, and promotion of handicraft production. There is no difference in PFP's activities in Vihiga/Hamisi and the rest of the Province except for higher concentration of assistance to businessmen in Vihiga/Hamisi. PFP makes no clear distinction between industrial activities and other business activities. The USAID rural industrial development fund is in fact being used mainly for a variety of trade promotion activities in Vihiga/Hamisi. PFP's mother organization is in the USA. Funds for the Kenya Branch originate from charitable organizations in the USA, Europe and Kenya, in addition to the USAID fund for rural industries in Vihiga/Hamisi. In 1971 PFP was issued a certificate of approved enterprise by the Kenya Government.

Business management and book-keeping advice were the first activities of PFP. In 1971 PFP began a loan agency, West Kenya Productivity Investment, Inc., (WKPI). As a supplement to extension advice, a Business Clinic was opened in 1972. Management and technical training activities at a few youth training centres were added. In 1973 sub-offices were opened in two rural market centres. PFP began to work with rural market committees in the allocation of loans. Also that year a craftshop was opened by the Kakamega head - office.

In 1974 PFP started to train young boys as business consultants for what PFP calls its "Bicycle Brigade". In addition, more branch offices were opened. In 1975 the PFP programme in Western Province in general, and in Vihiga/Hamisi, consists of management advisory services, the WKPI loan scheme and cottage industry projects. It would be wrong not to mention that Vihiga/Hamisi is also served by Kenya Industrial Estate's Rural Industrial Development Centre in Kakamega. However, since there are no special links between SRDF Vihiga/Hamisi and the Rural Industrial Development Centre as

* Prepared by Mrs. Britta Mikkelsen, IDR/IDS Research Associate.

there are between SRDP and Partnership for Productivity, RIDC activities in the area will not be dealt with here. However, it should be noted that the RIDC provides assistance to rural Industries in Vihiga/Hamisi on equal terms with other locations. In 1974 SRDP initiated an industrial committee on which both PfP and RIDC were represented, but the committee has never become effective.

By the end of 1974 total PfP staff was 23, of whom 6 were expatriates.

Activities and Results

1. Loans

WKPI, Inc. is the lending and investment organ of PfP. It is a separate legal entity with a Kenya Board of Directors on which PfP is represented. As separate entities WKPI and PfP are supposed to have separate budgets. Loans for PfP activities are, however, obtained from WKPI.

The first loans issued by WKPI were relatively large, in the range of 50,000 shs. The repayment rate was very low, loans disappeared and loans were used for other purposes than planned. PfP attributed the poor repayment experience to the double role that its advisors had had as management advisors and loan collectors. PfP/WKPI have now shifted the loans policy in favour of smaller loans provided through rural market committees. Six of these committees are in Vihiga/Hamisi. Each committee is entrusted with the selection of loan recipients and the collection of loan repayments. PfP provides the management advice to loanees. Small loans ranging from 300 shs, to 1500 shs., interest rate 6 pct.p.a. plus a service fee for the committee, are granted as working capital to rural traders. The market committees operate with a revolving loan fund, varying from 4,000 shs. to 10,000 shs. A total of 38,000 shs. were disbursed under the WKPI market loan scheme in 1974.

In two of the market centres the committee itself has managed to overcome potential nepotism in loans provision and repayment has been according to schedule. In the remaining centres the scheme has been less successful if not a complete failure. Discontent with the project is aired by traders who have not received loans from the committees.

2. Business clinic and management advice

In 1972/73 PfP operated a Business Clinic in Kakamega, where businessmen were supposed to come on a regular basis to discuss problems and seek advice. The attendance was low, traders not being inclined to approach the Clinic for "treatment". A shift has been made towards management advice at the clients place of business. Advice is on book-keeping, accountancy, setting prices, marketing, customer-relationships, tidiness etc. It is difficult to estimate how many clients are actively responding to

PfP services. PfP estimates that they were serving approximately 300 clients early in 1975. Since services are free this figure is not equivalent to the number responding actively to PfP teachings. Many listen to the advisors without taking further action. Most of these advisory services at a traders' place of business are provided by junior consultants whose own knowledge of business problems is restricted and their somewhat limited ability to deal with the problems met in actual consultancy depends on recurrent training of the consultants themselves. This programme for using junior business consultants, also called the "Bicycle Brigade", was initiated in 1974 in cooperation with Professor Harper of the University of Nairobi. According to Harper's concepts, school-leavers should be turned into rural business consultants after having been provided basic knowledge of management techniques. In 1974 PfP began to hire and train junior consultants, first 12 leavers from Kaimosi Friends Commercial College and later a group with no previous commercial training. Regular visits by this Bicycle Brigade to rural traders was planned to bring the number of PfP clients up to about a 1000 within a year. The figure has proved to be far too optimistic. Recruitment by PfP of potential consultants from school-leavers with very limited business knowledge, together with the reluctance of businessmen to receive advice on business matters from inexperienced juniors, has kept the number of clients at a maximum 300, the number of active clients being much lower. However, PfP is currently trying to expand the "Bicycle Brigade" by a new group of commercial college leavers.

3. Senior advisory services

Assistance to businesses with expansion potential is provided on two lines: planning, marketing and business lay-out assistance to already well established enterprises and development of new industry. Examples of industrial enterprises created through PfP assistance are very few. One was a cloth printing factory in Chevakali with PfP as investor and marketing adviser. The factory went bankrupt in 1973 when the PfP-installed manager left. Joint projects between PfP and RIDC Kakamega have remained shortlived or on paper. PfP has approached RIDC for assistance on three projects: a Turkana basket-weave table top with folding legs, tailored men's shirts made from hand printed cloth and replication of a sisal-weaving process. Recently PfP has made a proposal for an intermediate technology labour intensive sugar plant, a 1000,000 shs. project. The project was worked out in conjunction with Technoserve, another private organization for promotion of industries in Western Kenya. It was suggested that ¹⁰ Kenyans, WKPI, Technoserve, ICDC or Barclay's Development Fund would be shareholders. Technoserve, besides equity shareholding, expected to get the management contract. A similar project was already far advanced in the planning stage by RIDC when PfP pro-

posed cooperation. A company of Kenya shareholders has now been formed, land acquired and the project accepted as a Kenya Industrial Estates project.

Under senior advisory services PffP has provided book-keeping and mechanics instruction at Keveye Village Polytechnic, where part of PffP's USAID fund went into furnishing of a mechanics workshop. Instruction service has been discontinued by PffP in favour of placement assistance to VP leavers. Some carpentry leavers have been placed with success in rural workshops. Placement of three mechanics in Kakamega's largest garage was regarded by the firm as worse than accepting boys off the street due to retraining problems. A proposed cooperative workshop in Majenge which should absorb students trained in mechanics has been in the pipeline for almost two years, but yet is not off the ground. PffP has given advice on teaching in other Village Polytechnics.

4. Cottage Industry Projects

PffP opened a retail shop in Kakamega in 1972. The shop is used as an outlet for local crafts and has spurred a number of women's crafts groups initiated or assisted by PffP technical and marketing advisors.

Three of the women's groups with which PffP works are in Vihiga/Hamisi. The products made by these groups are soft-toys, banana-fibre artifacts, tie-and-dye and pottery-goods. The required high quality in the tourist or overseas market to which the products appeal, in the case of the Kaimosi pottery project, means that the saleable turnout is low. In the Kaimosi women's society the women were previously paid on a piece-rate. Today they are paid monthly, and the women feel that much too low a "salary" is paid to them by PffP. Common for the groups are that they all depend heavily on expatriate support in procurement of materials and marketing.

Replication of a sisal-weaving process, which PffP proposed to initiate together with RIDC, involved hand-loom weaving, using looms RIDC clients would have manufactured. It is questionable if such a project would ever become viable. Experience from other places has shown that handloom weaving cannot compete with factory made products unless a tourist market is secured. We are not in a position to assess the prospects for sales to tourists.

Implications of PffP activities and the involvement of an expatriate private organization in rural development

The presence of PffP in Kakamega when the Vihiga/Hamisi SRDP was initiated, as well as the fact that basic aid for the SRDP as for PffP originates from USA, may explain why PffP was granted the task of promoting rural industries under SRDP. The principles of PffP are outlined by the USA mother organization, stressing input to potentially sound and viable enterprises. PffP is staffed by businessmen and business economists and junior trade advisors, not with industrial economists, engineers or technicians. It is therefore not surprising that PffP has concentrated its activities on business promotion.

In so doing its inputs in Vihiga/Hamisi SRDP has turned the rural industry sub-project into a small-business promotion project. Even as a trades programme, it is questionable how far-reaching the effect is on the Vihiga/Hamisi trading community.

According to the objectives of WKPI, it is going to have a business function of its own. Additional capital expected to be generated by WKPI is as follows:

as of Dec. 1974	as of March 1975	as of June 1975	as of Sept 1975	as of Dec. 1975
nil	100,000	100,000	200,000	300,000

Loans provided through PFP/WKPI on individual terms or through market committees have generally been for working capital. PFP now counts the educational effect on market-committee businessmen as more important than the effect on the general economic situation. As a loan agency, PFP works side by side with a number of other private loan organizations, each with their own terms and some with dubious business motives. There is a growing suspicion against private loans-organizations in the Kakamega area, and their overlap into the same spheres causes confusion.

PFP is more ^{active} than other business promotion organizations in selling its services. Suboffices, which were intended to perform some of the now closed-down business clinic's "treatment" functions, have been opened. Their main function is to advertise PFP's presence. The "Bicycle Brigade" consultants are tied to the suboffices and their surrounding areas. PFP has realized now that mass-mobilization of school-leavers to become business consultants is not possible, but in spite of the limited response by businessmen and the reluctance of many of them to have the junior consultants mix in their businesses PFP is trying to expand the "Bicycle Brigade". Compared with the effects of the programme on the economy, the costs are high. Such programmes cannot be expected to be taken up by a government institution. The project is not coordinated with government assistance in the field. It is not surprising that PFP as a private organization, working on an experimental basis, responded to Professor Harper's school-leaver training programme. The attempts by PFP to place Vihiga Polytechnic leavers can only be appreciated in so far as it is being coordinated with the Ministry of Housing and Social Services' ongoing research and action programmes.

With regard to development of handicrafts groups, mainly women's groups, the far distance from the tourist markets to which handicraft products appeal adds just another difficulty to making those projects more than

time filling activities for women. None of the groups supported by PfP have so far developed into self-sustained production and business groups.

Conclusions and recommendations.

PfP has not justified itself as a relevant organization for developing rural industries. As a business development organization, PfP is still experimenting and its justification not fully established. Supply of capital to the area seems so far to be the main justification for PfP's presence in Western Province.

As Government policies towards promotion of rural industry and business develop, PfP cannot be expected to continue its own activities without Government control. Overlap, contradictory policies and intermixing of private^{and} Government agencies' activities are already evident and causing confusion. Following from the above it can be recommended that:

1. The special USAID fund for rural industrial development be retained within SRDP (for a future District Development body).
2. Consultancy on rural industrial development be directed to the Government's own rural industrial development organization, at the present RIDC Kakamega and in the future to whatever RIDC becomes under an overall small-business development agency.
3. PfP should have only a circumscribed role in what may be the trade development section in the expected Small Business Development Agency.
4. The operation of a number of essentially expatriate organizations to extend loans to small business should be reviewed.
5. Curriculum development and placement assistance for Village Polytechnics should be channeled through the Ministry of Labour and the Ministry of Housing and Social Services.
6. PfP should utilize its own business management services intensively to transfer sufficient business knowledge to women's handicrafts groups to enable them to become self-sufficient.
7. Alternatively, more emphasis should be put on developing productive activities for women who can benefit from them in their own environment. If these are to be related to their agricultural activities , PfP lacks the relevant expertise within its own organization and coordination with Community Development Assistants is necessary.