

**SMALL-HOLDER FARMERS AGAINST THE  
STATE IN A LIBERALIZED MARKET  
ECONOMY: A CASE STUDY OF THE BOYCOTT  
BY MWEA IRRIGATION SCHEME FARMERS.**

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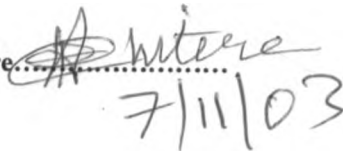
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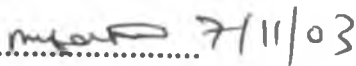
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## DEDICATION

**This dissertation is dedicated to my husband Stephen Onyango Orege and our daughter Denise Achieng Orege.**

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Several people/organisations have offered me invaluable help during the writing of this dissertation. First, I would like to thank my supervisors Prof. P.O. Chitere and Dr.P.N.Mbatia for their constructive criticism and intellectual guidance. Their numerous corrections have particularly enriched this dissertation. I would also like to thank IFRA for funding my field work – thank you for that generous offer. My sincere thanks also go to the Mwea farmers who sacrificed their time to give me the information I needed. Thanks too to their leaders especially Hon. Alfred Nderitu (M.P. for Mwea) and Dr.Kamau (MRGM Scheme Manager) who were very resourceful.

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## ABSTRACT

The study's main objective was to investigate the existing problems at the Mwea Irrigation Scheme that contributed to the farmers violent severing of their links with the National Irrigation Board. The study therefore hypothesized that the single – buyer and the top-down administrative policies, adopted by the National Irrigation Board, and the insecurity of tenure at the Mwea Irrigation Scheme, did contribute to the boycott by the Mwea farmers. The study also sought to establish any other factors that may have contributed to the boycott by the Mwea farmers.

A total of 150 farmers were interviewed in a survey with the questionnaire as the main tool of data gathering. In addition in depth interviews were used to gather information. The data was analyzed using descriptive statistics.

The study found that the leasehold land tenure system in operation at the Mwea Irrigation Scheme is highly inappropriate and many a farmer would prefer freehold land tenure system backed by a title deed. It was found that apart from being assured of security of tenure, possession of a title deed would enable the farmers to borrow from the banks using the title deeds as collateral security thereby enabling farmers to diversify their activities.

Another important finding of the study is that the single buyer policy employed by National Irrigation Board was very inappropriate. It was found that as a result of the said policy, farmers were paid very low prices for their paddy, as they were not allowed to sell their paddy to whoever offered the highest price. It was also found that because the NIB was the sole buyer of all paddy produced by the Mwea farmers, farmers were allowed to retain only 12 bags of paddy for domestic consumption. This was found to be insufficient as many farmers have large families.

One major finding of the study was that the top-down administrative policy employed by the NIB, was very inappropriate. This policy, it was found, denied the farmers a chance to participate in decision – making. Another major finding of the study, which is closely tied to the issue of administration, was that the relationship between the farmers and the National Irrigation Board staff was very strained. It was found that the harsh rules, spelt out in the Irrigation Act, which the farmers had to abide to, together with the top – down administrative policy that left the farmers with little or no say in the running of the scheme, gave rise to this strain in relationship.

The study recommended government assistance in areas such as research and marketing. The government can also restrict the importation of poor quality rice to protect domestic consumers. It is also recommended that the government reviews the issue of issuance of title deeds to the Mwea Irrigation Scheme farmers. To the farmers, it is recommended that they lay out and follow strict guidelines as the survival of the scheme is in their hands. Overall, there is more need for government assistance to the Mwea Irrigation Scheme Farmers.

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# CHAPTER ONE

## 1.0 INTRODUCTION

The objective of this chapter is to introduce the research topic; state the research questions and objectives; state the scope and limitations of the study and finally provide a rationale for the study.

## 1.1 Background

Kenya has since independence relied heavily on the agricultural sector as the base for economic growth, employment creation and foreign exchange generation. The sector is also a major source of the country's food security and a stimulant to growth of off-farm employment, both of which are of primary concern to the government. These are obvious considerations given that approximately 80 per cent of the country's population live in rural areas and depend on agriculture for their livelihood (Republic of Kenya, 1997).

Alila (1987) notes too that the recent development in Kenya, in fact, points to the conclusion that there is a direct critical link between developing agriculture and the overall economic developments as well as future prospects for her economy. The logic is simply that the majority of the Kenyan population depend on agriculture for a living and are mostly rural dwellers.

It is also noted that agriculture remains one of the most important sectors driving economic growth and plays a central role in employment generation. A large proportion of Kenya's labor force is based in the rural areas. According to the 1989 population census, out of the total labor force of 9.3 million, about 82 per cent were based in rural areas whereas only 1.7 million were in urban areas (Republic of Kenya, 1997).

Despite the importance of the agricultural sector in Kenya and in most sub-Saharan African countries, the performance of the sector has been poor for most years since 1970 (World Bank, 1981, Mosley and Smith, 1989). In Kenya, the performance of the agricultural sector in terms of its contribution to Gross Domestic product has been dwindling.

Available statistics show that during the period 1964-74 the sector contributed 36.6 percent of Gross Domestic product, and 1974-79, 33.2 per cent, (Republic of Kenya, 1997). We are therefore confounded with a situation whereby the one sector that is the backbone of our economy has been registering a declining performance over a long period of time. What is even more worrying is the fact that things are not getting any better. In fact they are getting worse.

One important sub-sector that has experienced serious problems is the irrigation sub-sector. It is noted that one of the major problems in Kenya's agricultural sector is over-dependence on rain-fed agriculture. Given that 80 per cent of the country's land surface falls under Arid and semi-arid land areas (ASAL) irrigation is crucial to the development of agriculture (Republic of Kenya, 1997); Ruigu (1987), observes that there is need for intensified agricultural production given declining land base and a rapidly growing population. Irrigation development can assist in land use intensification.

The Mwea Irrigation scheme has been characterized as the oldest, largest, and most successful irrigation project in Kenya. The scheme offers a model of highly successful production system that combines strongly centralized management with the attainment of relatively high rice yields by over 2,000 tenant farmers year after year (Chambers, R and Morris, J 1973). Historically, the Mwea Irrigation Scheme was brought to birth by the crisis of the emergency. In 1953, the Kikuyu reserves were overcrowded with people repatriated from the Rift valley where many of them had been working on European farms.

At the same time the number of Kikuyu detained in connection with the emergency were rising and camps had to be set up for them. The Mvua, allocated to the Kikuyu by the Carter Land commission as compensation for the lands they had lost to Europeans offered an attractive possibility for dealing with both these problems (chambers, R and Morris J. 1973).

After independence (in 1963) the schemes were taken over by a department falling under the Ministry of agriculture. The department funded the operations in these schemes through government allocations and from donors.

However the National Irrigation board was incorporated in 1966 by virtue of the Irrigation ACT, chapter 347 of the laws of Kenya. The Board, which gets its authority from the Irrigation ACT, is responsible for the development control and improvement of National Irrigation Schemes in Kenya (Republic of Kenya 1961).

## **1.2 Problem Statement**

The legal basis for the management of the large-scale irrigation schemes in Kenya is provided by the Trust lands (Irrigation areas) rules of the laws of Kenya (Ruigu, 1990;Veen J.J, 1973). The tenants are in strict legal terms, "licensees," not owning the land but cultivating it under a license, which is automatically renewed from year to year. Some scholars argue that this system was adopted because if the land were owned by the settlers it would be difficult to control cropping, transfer of ownership, and fragmentation among relatives, whereas land under tenancy license can be fully controlled and the licensee is obliged to observe managerial instructions (Veen, 1973).

It has been observed that the overall system of management of irrigation schemes in Kenya is semi-military, which is necessary for the required strict control over the tenant. This may sound rather harsh but some scholars argue that the success of Mea is largely attributable to the close supervision, which protects the tenant from failure. Moreover, any community dependent on a centrally coordinated production system demands and requires a certain disciplinary system in order to survive (Veen, 1973).

However, other scholars have disputed this argument. From the origin of the scheme itself, Alila (1987) notes that the colonial administration using the well-known coercion style of implementing its agricultural policies imposed the irrigation schemes.

This meant there was in effect no freedom of choice to either belong or not to belong to these schemes, not to mention that one's preference could be totally different. The voluntary spirit, which if natured could have generated commitment and hence full involvement in the schemes' affairs, was therefore lacking.

Ruigu (1990) observes that the rules have been viewed as providing for an extremely authoritative system which gives the managers near total control over the labor power of the tenants and their families and the right to enforce discipline impose fines confiscate property and cause their imprisonment. The excuse for this kind of authoritarian rule is that for the better performance of the scheme (technically) there must be strict rules governing the conduct of the tenants. However it should be emphasized that technical deficiencies in the irrigation system provide only a partial explanation for the poor performance of irrigation schemes even in Kenya. There are in addition constraints in the institutional and social spheres that hamper adequate performance of irrigation schemes (Alila 1987)

Therefore insecurity of tenure is a major concern among all tenants most of who were land-less before being settled and who prefer the freehold tenure backed by a title deed.

Examples from India and Sri Lanka suggest that it is possible to have successful irrigation farming under freehold tenure systems (Ruigu, 1990)

Another outstanding issue with the irrigation system in Kenya and especially at the Mwea Irrigation Scheme is the issue of marketing. That is, who should market the rice produced by farmers? Is it the farmers themselves or is it the state through some of its bodies such as the National Irrigation Board? It is important to note at this point that most African states possess publicly sanctioned monopsonies for the purchase and export of agricultural goods. A monopsony is a single buyer and where there are many sellers but only one buyer the buyer can strongly influence the price at which economic transactions will take place (Bates 1981)

In Kenya the marketing system just like in the case of rain-fed products is largely controlled in and takes place through a single channel. Thus rice is sold to the National Cereals and Produce Board. All payments are made to the National Irrigation Board to enable it recoup the cost for water, land preparation and other inputs (Ruigu 1987).

These monopsonies mainly serve the state and not the farmers. Bates (1981) notes that the marketing boards derive their powers from official statutes and these statutes can be and repeatedly have been revised to make the boards more faithful servants of the government. In particular rather than being used to accumulate funds for the farmers the agencies are increasingly used to impose taxes upon them. Therefore these monopsonies can be said to be moneymaking devices for the states. They are used to churn money from the farmers. It can further be argued that using the price setting power of the monopsonistic marketing agencies the states have therefore made the producers of cash crops a significant part of their tax base and have taken resources from them without compensation in the form of interest payments of goods and services returned (Bates, 1981).

Another concern at the Mwea Irrigation Scheme can be said to be the administrative policy. Literature reveals that all-important decisions are made at the top of the leadership hierarchy. This is a bureaucratic kind of leadership which can be defined as a rationally organized hierarchical organization aimed at co-ordinating the work of many individuals in the pursuit of larger scale administrative tasks (Njoka, 1992). This kind of administration has one flaw that not all decisions made at the top will be for the welfare of the farmers. In fact, it can be argued-and correctly so that the government has used this kind of administration to ensure the Mwea Irrigation Scheme remains under its wings. The farmer does not participate in formulation of policies that affects him. He is just a mere recipient, who is not supposed to question.

It is because of this kind of leadership that the National Irrigation Board runs a head office with a total of 120 employees (by 14th February 2000).

It is important to note that the National Irrigation Board does not need these employees since every scheme has its own on-site personnel to run it. The Mwea Irrigation Scheme has 378 personnel on-site (Mwea Irrigation Scheme, Annual Reports 1998/99).

In connection with this is the fact that this bloated staff has to be paid by funds channeled from the schemes. For a long time, the Mwea Irrigation Scheme has been the only one with positive cash flow (Ruigu and Rukuni (Ed) 1987). Therefore, any profits realized have to be used to pay the National Irrigation Board staff. The profits do not benefit the farmers who generated them. In summary, therefore, the National Irrigation Board is over-bureaucratized at the head office, an arrangement that does not make for the efficient operations on the ground (Migot - Adholla and Ruigu, 1989).

The myriad of problems afflicting the rice sub-sector led to some violent confrontations between the Mwea Irrigation Scheme farmers and the police (deployed by the government) in January 1999.

Trouble started in December 1998 when farmers refused to deliver their rice to the National Irrigation Board. They argued that they are being exploited and the National Irrigation Board is paying them low rates. They want to process and market their paddy through the Mwea Multipurpose Co-operative Society (Daily Nation, Tuesday January 12,1999). Between January 13th and 14th, two farmers were confirmed dead. Anti-riot police shot them as they were demonstrating. The farmers on their part burnt down a paddy reception center of the National Irrigation Board destroying property worth millions of shillings. They also looted other stores (Daily Nation, January 13th, 14th and 15th).

It was, however, observed that the National Irrigation Board was caught in between the farmers and the government as far as policy is concerned. Since the country embraced liberalization the board expected, from the Ministry, policy guidelines on the rice sub-sector, but it appears there were none.

Meanwhile rice farmers have seen other sub-sectors like coffee, tea and cereals liberalized with benefits accruing to the farmers, especially higher prices (Daily Nation, Editorial. January 16th, 1999).

Drawing from the above background, I therefore carried out an exploratory study that focussed on the following research questions related to the recent unrest at the Mwea Irrigation Scheme:

1. How did the single-buyer policy adopted by the government of Kenya contribute to the recent unrest at the Mwea Irrigation Scheme?
2. How did the insecurity of tenure contribute to the recent unrest at the Mwea Irrigation Scheme?
3. To what extent did the top-down administrative policy adopted by the National Irrigation Board contribute to the recent unrest at the Mwea Irrigation Scheme?



4. What other factors explain the recent unrest at the Mwea Irrigation Scheme?

### 1.3 Objectives

As its main (broad) objective, this study sought to find out the factors that contributed to the recent unrest at the Mwea Irrigation Scheme. The following were the specific objectives:-

1. To find out how the single-buyer system contributed to the unrest at the Mwea Irrigation Scheme.
2. To find out how insecurity of tenure contributed to the unrest at the Mwea Irrigation Scheme.
3. To find out what extent the top-down administrative policy contributed to the unrest at the Mwea Irrigation Scheme.
4. To find out other factors that could explain the recent unrest at the Mwea Irrigation Scheme.

### 1.4 Rationale

Despite hurried attempts at “industrialization by the year 2020”, Kenya is still largely an agricultural economy. However the performance of this important sector has been on the decline in the past few decades. Its contribution to the Gross Domestic Product dropped from 33.2 percent in 1974-79 to 26.2 in 1990-95 (Republic of Kenya, 1997). If this trend is not checked, we will soon change our logo to “food for all by the year 2020”.

It is important to note that Kenya is short of good agricultural land. It is estimated that about 80% of Kenya’s land area is arid or semi-arid. The obvious implication, it seems, is that expansion of agricultural land can occur through irrigation (Alila, 1987; Ruigu, 1987). In relation to this, it is important to recall the ever-occurring drought in this country. Over-dependence on rain fed agriculture is what has led to serious food shortage in times of drought.

The study, therefore, aims at coming up with recommendations that can be used to solve the problem of farmers' participation in marketing their produce. This may help resolve the impasse at the Mwea Irrigation Scheme, and also ensure that the same does not get repeated in the other schemes. This can even lead to establishment of new irrigation schemes to counter the problems of inadequate arable land and drought.

Despite a number of studies having been carried out in the field of agriculture, and particularly irrigation, there is still a lot that needs to be done. So many aspects of the area still have not been studied and documented. This study is therefore important because it will generate knowledge for future reference to those who are interested in the area.

As stated earlier, the Mwea Irrigation Scheme has been characterized as the largest, oldest, and most successful irrigation project in Kenya (Chambers and Morris, 1973). Currently, the scheme covers some 6,000 hectares and supports 3,381 tenant families (Mwea Irrigation Scheme, Annual Reports 1998/99). Most of these people are land-less and have nowhere else to go were the scheme to collapse. The study therefore aims at giving suggestions that will help bring things back to normal at the scheme. This is especially for the good of the farmers who drain their livelihood from the scheme, and also for the National Irrigation Board whose investments in the scheme are massive.

Equally important is the fact that the Mwea Irrigation Scheme is perhaps the only Irrigation Scheme that has been operating profitably. Most of the other State owned schemes have either collapsed or have been recording losses year after year. Literature reveals that earnings from the Mwea Irrigation Scheme have therefore been used to pay the National Irrigation Board staff and even to run the other schemes. Migot-Adholla and Ruigu (1987) observe that only one of the large-scale projects, that is Mwea, pays its way or makes profit. The others survive in subventions from treasury.

They also observe that in the case of Mwea, some rates are charged and used to cover unmet deficits in other schemes and the headquarters costs of the NIB. It would therefore be a shame to see the only profit making state owned scheme collapse hence the need for this study.

## **1.5 Scope and Limitations**

The study aimed at finding out the factors that contributed to the recent unrest at the Mwea Irrigation Scheme. Despite farmers' unrest being widespread throughout the country, this study was based at the Mwea only. This was because of limited resources (time and money) at my disposal. It is therefore believed that the findings of this study may apply to other rice farmers in other parts of the country and even to all farmers in the country.

There had been unrest in other sub-sectors of the agricultural sector. However, it is not possible for a single study to encompass all the sub-sectors. Hence, despite this study concentrating on the rice sub-sector, it may give an insight into the general problems afflicting the agricultural sector as a whole. However, more studies are needed especially for the tea and coffee sub-sectors.

In conclusion, the above chapter has given an exposition to the problems under investigation. Importantly, the study questions and objectives have been outlined. The rationale and the scope and the limitations of the study are also explained.

## CHAPTER TWO

### 2.0 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

In this chapter, I will review literature that deals with agriculture and participation in development. The literature has therefore been organized under the following themes: - (1) The history of agricultural policies in Kenya, (2) performance of the agricultural sector, (3) the performance and structure of the National Irrigation Board, (4) participation in development and (5) Harambees as participatory development. In addition, the study will be put in a theoretical perspective and at the end of the chapter, the hypothesis guiding the study will be stated.

#### 2.1.1 The History of Agricultural Policies in Kenya

Kenyan agricultural policies can be said to have been changing over time. In this subsection, I aim at tracing these changes in policy since independence to date.

Agricultural Policy can be defined as governmental action that affect the incomes of rural producers by influencing the prices these producers confront in the major markets which determine their incomes (Bates 1981:30).

Upon attainment of independence in 1963, agricultural policies were based on principles outlined in the Sessional Paper Number 10 on African Socialism and its implications to Planning in Kenya, which emphasized political equality, social justice and human dignity. Under these principles, agricultural policies were founded on equitable income distribution, employment and self -sufficiency. The state played a paternalistic role with the citizenry having no role in policy formulation, design and implementation.

The responsibility of controlling the policies was undertaken by a plethora of public institutions. Although the farmers had their own institutions (such as Kenya Farmers Union for purchase and distribution of farm inputs and marketing outputs), in reality, the state controlled the commodity to be grown and how it was marketed through established statutory boards (Nyangito and Okello, 1998:2).

In these early years, emphasis was put on expansion of agricultural production through the increase in acreage and diversification of crops. It was noted that if national farm income is to grow rapidly, it will be necessary not only to increase the acreage under farming but also widen the range of types of agricultural produce and increase the productivity of both land and farm labor (Republic of Kenya, 1964).

Emphasis was also put on the co-operative movement. Co-operation in Kenya is widespread and represented a major sector of the economy. The co-operative movement marketed a large proportion of agricultural output. Because co-operative principles and organization provided an effective and tested method of implementing democratic African socialism, the co-operative movement would be encouraged to expand and diversify its activities. At that time, the movement was concentrated on agricultural marketing activities and there was need for enlarging the number and types of co-operative enterprises by developing societies in credit, farming, wholesale and retail trades and industry. To promote such an expansion, certain major changes were necessary to rationalize the structure of the movement, render government supervision more effective and improve the education and training of co-operative society members and staff as well as of Government staff (Republic of Kenya, 1964).

Another policy emphasized at this time was land adjudication. It was noted that increased emphasis would be given to the land adjudication and registration program for the completion of this procedure was felt to be important pre-condition for rapid agricultural development (Republic of Kenya, 1970). However, this policy did not apply to all land. Some of the land (trust land) is said to belong to the government. Such land has not been subdivided among those who have been working on it for years.

The Mwea Irrigation Scheme falls under trust land. Therefore, the farmers do not own the portions they have been working on for years. What they can plant, and how they can market it is determined by the government, the owner of the land. One can therefore hypothesize that this insecurity of tenure has hindered the involvement of the farmers in major decisions concerning their crop. This can also be said to have contributed to the recent unrest at the Mwea Irrigation Scheme.

After some time, the government found the need for a shift in policy. It was noted that rapid growth in the agricultural sector had been achieved in the past through expansion of acreage. The area devoted to crops had been increased through the conversion of pastures and some forestland to crops, irrigation and drainage schemes, and the fuller utilization of previously idle land. It had become apparent that the easy and less costly ways of expanding the area under cultivation were nearing exhaustion. Future increases in agricultural and livestock production would depend to a large extent on increasing yields (Republic of Kenya, 1982).

Until 1980, the government controlled both the production and marketing of agricultural produce. However, from 1980, there was a shift in economic policy towards a liberal state ideology in developing countries. This ideology emphasized the reduction of state intervention in the economy and free market operations. Part of the reason was the high cost of socialist development strategies, which became clear with the failure of most publicly, owned enterprises.

The liberal state ideology which was strongly marketed through aid conditions set out by the World Bank and International Monetary fund in the 1980s and 1990s, emphasized that the state's role should be limited to creating an enabling environment for individuals and associates to freely pursue their economic and social objectives subject to obeying the laws (Nyangito and Okello 1998:2).

However, liberalization has not been embraced wholeheartedly. The first attempt to introduce liberal policies in Kenya was indicated in the 4th National Development Plan (1979-1983) but it was not until 1982 that reforms gained momentum mainly because of the World Bank requirements that distortions in the market be removed as a condition for loan disbursement (Swany, 1994). Official commitment to these reforms, however, was often lacking. In most cases the reforms were met with overt and covert resistance and tended to be patchy, intermittent and unstable (see Swany, 1994, Nyangito and Okello 1998:2). This is evident in the way some sub-sectors have been liberalized while others have not. For instance, the coffee sub sector has been fully liberalized such that Kenyan farmers now sell their coffee through auctions. This enables them to fetch the highest possible price in the market. On the other hand, the marketing of rice is yet to be liberalized.

Looking at how the Kenyan agricultural policies have developed, one notices a great deal of state control in the early years after independence. Even though the co-operative movement was encouraged, the government rendered supervision of these movements hence undermining what activities they could engage in. Land adjudication and registration was also not all-inclusive as a large proportion of Kenyans, formerly displaced from their land by colonialist, found themselves on what was, and still is, categorized as trust land. These people still do not own the land on which they have lived and worked since the colonial times. Since 1980, the Kenyan government has embraced liberalization. This has not also applied to all sub-sectors as the rice sub-sector is yet to be liberalized.

It can therefore be said that some of the agricultural policies adopted by the government may not have had positive effects on all sub-sectors, and especially on the rice sub-sector.

### **2.1.2. Performance of the Agricultural Sector.**

For about 10 years after independence, Kenyan agriculture grew at an impressive rate. For instance, between 1964 and 1974, it grew at an average rate of 3.90 percent per annum. Between 1965 and 1979, it grew at an average rate of 3.34 percent per annum and between 1980 and 1990, it grew at an average rate of 0.40 percent per annum (Republic of Kenya, 1997). Therefore, agricultural growth started declining in the 1970s. It was noted that since 1980, Kenya has not experienced stable growth in the agricultural sector. Indeed, the sector recorded negative growth rates for three consecutive years, between 1991 and 1993 (Republic of Kenya, 1997).

In the 5th National Development Plan (1984-1988), it is noted that Kenya's agriculture is at crossroads. Until the early 1970s it was extremely successful, with a rapidly growing and increased monetized small-holder base backed by a well-developed infrastructure, dynamic commercial network and a well staffed system of agricultural services (Republic of Kenya, 1984). Rapid growth was also achieved through the expansion of acreage under crops and increases in yields per acre (Republic of Kenya, 1982). It was also noted that throughout the 1980s and 1990s, expenditure on agriculture as a percentage of total government expenditure has declined. In 1980-1987, it was 8%, falling to 5.2% in 1993-95. Therefore, the higher expenditure on agriculture in the early years after independence did also lead to the growth of the sector.

It has also been noted that the controls the government exercised worked somewhat well in the first decade after independence. During this period, there was rapid increase in maize production and a steady one for other crops.



An important booster to agricultural production in this era was arrangements for marketing agricultural produce and controlled pricing. In this regard, most commodities were marketed through marketing boards. The boards provided ready market outlets for export (see Wyckoff & Gitu, 1984; Gordon & Spooner, 1992).

Despite the success of the policies in the first decade after independence, agricultural growth started to decline in the mid 1970s. Some scholars have attributed this to inefficiencies in the marketing, limited land expansion of smallholder farming, limited development and use of new technologies, restrictions on private trade and processing of commodities and deteriorating infrastructure (Nyangito and Okello, 1998:8). In the marketing, it became evident that too much of government intervention had stifled the private sector and was forcing the government to do what the private sector would have done more effectively. The parastatals, which enjoyed nationwide monopoly had failed to achieve the objectives for which they were set; price and income stabilization for farmers, efficient nationwide distribution of commodities to consumers without government subsidies, and buyers of last resort (see Swamy, 1994).

We are therefore confronted with a situation where policies that worked well in the early years after independence seem not to be working anymore. The marketing and pricing policies, which are of concern to us, seem to have particularly failed the farmers. Apart from denying farmers a chance to participate in marketing their produce, what they pay the farmers is below world market prices. There is also the problem of paying where the producers have to wait for two to fifteen months before receiving full payment (Republic of Kenya, 1989).

Even after embracing liberalization, some of these parastatals, for example: the National Irrigation Board still exist and have been the sole buyers of the rice grown on irrigation schemes. Rice farmers have therefore had to contend with the terms offered by the board, which as we have said earlier have not been very favorable to the farmers. There may, therefore, be need for a review of agricultural policies to check the declining performance of the agricultural sector and ensure proper compensation of farmers.

### **2.1.3 The Performance and Structure of the National Irrigation Board.**

The National Irrigation Board was incorporated in 1966 by virtue of the Irrigation Act, Cap. 347 of the Laws of Kenya. Among its responsibilities were to oversee the establishment and running of the National Irrigation Schemes, to promote the marketing of crops grown or produced on National Irrigation Schemes and to provide for the processing of these crops.

The chief executive of the National Irrigation Board is the General Manager who is assisted by two deputies, one in charge of administration and Agriculture, and the other in charge of Engineering. There are six departments namely Administration, Engineering, Agriculture, Finance, Legal and Board Secretarial, and Audit.

Each of these departments has its own chain of command. For instance, the engineering department organizational chart is as follows: -

Deputy general manager (Engineering)

- Engineering services manager

Chief Engineer

Assistant chief Engineer

Senior Engineer

Mechanical Engineer

Irrigation Engineer

Senior Draughtsman

Draughtsman

Assistant Draughtsman

Mechanics

Artisans

Therefore, the National Irrigation Board is highly bureaucratized. It runs a head office with a total of 120 employees (by 15th February 2000).

However, every scheme has its own on-site personnel to run it. By the latest report (1998/99), the Mwea Irrigation Scheme had a total of 378 personnel on site.

At the head of the field staff is the settlement (scheme) manager who is responsible to the General Manager of the Board, who in turn gives an annual account of the board's activities to the Office of the President and the Minister for Agriculture. The settlement manager is assisted by a field staff consisting one senior irrigation officer, irrigation officers, head water-guards, water-guards and cultivators (Veen, 1973). This therefore means that there is no direct link between the management and the farmers. That information passes through so many people to reach either the management or the farmers.

This way, it is hard for the management (especially the headquarters) to know what is happening on the ground. If farmers aired some complaints, it is unlikely that they will reach the top management at the headquarters.

It is also important to note that all decisions are made at the top. The farmers are only required to implement already formulated policy. Therefore, the bureaucracy and top-down administrative policy leave no room for participation of farmers hence a possible cause of unrest among the farmers.

The performance of statutory marketing boards (the National Irrigation Board being one of them) has been wanting for a long time. As early as 1970, it was noted that in some instances, the boards might not be the most suitable type of marketing organizations as some may have adopted inefficient marketing policies (Republic of Kenya, 1970). In 1989, it was noted that since the early 80s, it had become clear that too much official involvement in marketing and pricing include operational inefficiencies. It was also noted that the performance of the parastatals had remained poor due to lack of competition and a weak management (Republic of Kenya, 1989).

These monopsonies (single buyers of produce or statutory marketing boards) may have been formed for good reasons, but somewhere along the way, they lost it all. Bates (1981) observes that the desire to extract resources from the agricultural sector is what gives birth to monopsonies. One major consequence of the persistence of these institutions is continuing conflicts between peasants and the bureaucrats in the rural markets of Africa. The peasants exploit the economic alternatives, which the rural markets offer in an effort to avoid adverse impact of official policies. The bureaucrats seek to appropriate the peasants' produce at the lower prices that the state is willing to offer. For instance, at the Mwea Irrigation Scheme, the National Irrigation Board is the single buyer of paddy hence it has been offering farmers very low prices for their paddy.

This has not gone down well with the farmers who feel exploited. In fact, some farmers have for a while been smuggling their paddy and selling it to independent millers.

Even before the total boycott by farmers, the amount of paddy delivered to the National Irrigation Board stores had dropped from 27,555 metric tones in 1988/89 crop year, to 24,138 metric tones in 1997/98 crop year. One can therefore hypothesize that the monopolistic tendencies of the National Irrigation Board have denied the farmers a chance to participate in marketing their produce hence a possible cause of the recent unrest at the scheme.

#### **2.1.4 Participation in Development.**

Popular participation is of course at the outset a concept of social democracy. That is to say, it is about people participating in schemes that are supposedly in their interest, the central issue of popular participation has to do with power exercised by some people over other people and by some classes over other classes (Pearse 1980:11). Therefore, as Migot Adholla and Kabwegyere (1981) put it, to participate is to be involved. This involvement must accrue specific benefits to the participants.

The United Nations Task force on Rural Development (1977) defined popular participation as an active process in which the participants take initiative and action that is stimulated by their own thinking and deliberation, over which they can execute effective control. The idea of passive participation, which involves people in action, which have been thought out or designed by others, is unacceptable. This has been the case at Mwea Irrigation Scheme where, even the inception of the scheme itself was not the farmers' idea. The scheme was started to extract cheap labor from Kenyans, who had been displaced from their ancestral land by the white settlers. Until the farmers forcibly severed any links with the National Irrigation Board, the same Board had imposed all decisions on them.

Therefore, the running of the scheme has not been participatory.

Conventional wisdom of local level participation in development is that, first, it increases equality and the relevance of decisions; secondly, it increases the chances of success and mobilization; and lastly, the above in turn tend to motivate a sense of self-reliance and wider and more efficient use of local resources (Bwalya, 1985:183). It is imperative, therefore, that mechanisms and fora are designed with the sole aim of enabling rural people take part in development planning, implementation and evaluation, if meaningful development is to be attainable (ILO 1972:15).

At the Mwea, since the farmers do not participate in policy formulation, some of the policies formulated are not only irrelevant but also outrightly unfair. For instance, the requirement that farmers deliver their paddy to the National Irrigation Board stores reduces the farmers' bargaining power hence they have had to contend with the low prices that the board has been willing to pay them.

The local resources especially, intellectual manpower has not been utilized since the farmers have just been manual laborers used by the National Irrigation Board in the process of churning out paddy.

An analysis of the program content and the communication strategies used to convey development programs to the rural communities show a clear disharmony in the identification of local requirements and planning needs and in the identification, mobilization and allocation of local resources. The analysis show that rural change programs tended to be imposed upon rural communities irrespective of their expressed needs or abilities. This disharmony isolated planning from implementation so that planning was centralized government activity and implementation was in the form of imposed programs, such as hillside terracing, livestock de-stocking and road making, on rural people (Mbithi, 1974).

The notion of popular participation argues against the blueprint approach. Chambers (1983:211) observes that the blueprint approach emphasizes planning from top and the implementation below. Such an approach results in a structure and style that is authoritarian, hierarchical and punitive. This is because there is no synchronized flow of information from the center and a strong feedback from the bottom (community). This therefore means that the real problems faced by the change agents and the target communities in the development program implementation process and the impact of these programs never really come out clearly (Muia, 1991).

Therefore, the Mwea Irrigation Scheme has been established and run using the blue print approach. That is why it is authoritarian as decisions are made at the top and communicated to the farmers for implementation. The farmers are not supposed to question these decisions. It is hierarchical because there is a long chain of command through which information flows from the management to the farmers and vice versa. It is punitive because the farmers do not have a say in decision making. They are required to merely implement decisions made by the management.

### **2.1.5 Harambee as Participatory Development**

Harambee can be said to be the alternative that the tenants seem to have opted for. Ng'ethe (1981) observes that Harambee is, among others, a form of traditionally sanctioned informal co-operation. That is, a traditional mode of operation is being utilized to correct the orthodox community development approach whose major fault has been its failure to combine planning and implementation at local levels leading to a situation whereby rural changes have been imposed on the peasants.

Accordingly, Harambee is an indigenous participation mechanism because it utilizes traditional structures of co-operation like clan, thereby alleviating the need for new participatory institutions and at the same time correcting the faults of textbook approaches to community development. (Askwith, 1960; Holmquist, 1970; Mbithi, 1972.)

Therefore, what we are seeing at the Mwea can be termed as Harambee effort. This is because the farmers have pulled together their resources and formed a co-operative through which they are demanding to be allowed to participate in development. Harambee seems to have what Kabwegyere and Migot-Adholla (1981) refer to as the three basic components that are necessary and sufficient for development to occur. These are: -

Development involves growth. Growth can be defined simply as increase in certain capacities depending on what is to be developed. For example if one talks of the development in education, one must not only mean in the infrastructural capacity alone but also the quality of education and its value to those who acquire it. Growth is both qualitative and quantitative (Migot-Adholla and Kabwegyere, 1981:2). However, what has been happening at Mwea has been quantitative growth at the expense of qualitative growth. The total acreage has increased from 1,200 ha with about 1,000 farmers in 1966, to 6,041 ha with about 3,381 farmers in 1988.

However, the quality of life at the scheme has deteriorated and as Njoka (1992) notes, four decades after the establishment of the scheme, the tenants living conditions are far from being better but instead declining. Therefore, if the farmers were allowed to participate in their development (especially in planning) they will plan what is for their good hence qualitative growth.

The second necessary component of development is in the generation of growth. Participation in the generation of growth is a necessary condition for development because development is primarily a process to benefit the people in the development unit (a human collectivity in which the development takes place). If an outsider generates growth, it will not have meaning to the people in the development area. Development is a personal, a group, and a collectivity experience. Only then does it have meaning. Only then can it have the capacity of self-sustenance and creation (Migot - Adholla and Kabwegyere, 1981:3).



At the Mwea, growth has been, for a long time generated by an outsider. That is why the farmers view it as exploitative hence through the harambee movement they hope to initiate development themselves.

The third component that is necessary in the development process is the distribution of consequences of growth. -What does the individual get for his participation in the generation of growth? (Migot - Adholla and Kabwegyere, 1981:4). At the Mwea, the individual farmer has benefited very little from the growth. This is because any profit made have to be used for the running of the National Irrigation Board offices and paying the staff. The farmer does not benefit from the participation.

### **2.2.0 Theoretical Framework.**

The recent unrest at the Mwea Irrigation Scheme can be better understood if looked at in the theoretical perspective of collective behavior and social movements, and peasant revolutions.

#### **2.2.1 Collective Behavior and Social Movements**

Collective behavior can be defined as those forms of behavior which usual conventions cease to guide social action and people collectively transcend, bypass, subvert established institutional patterns and structures (Turner and Killian, 1987:3).

The events that took place at the Mwea Irrigation Scheme in January 1999 fit into the above definitions. This was a case where farmers interstimulated one another and refused to deliver their paddy to the National Irrigation Board stores. Even policemen were deployed to force them to do so; they still refused and instead fought back. They were therefore acting in a way that is not governed by established norms hence collective behavior.

Basing on the above definition, what has been going on at the Mwea since January 1998 can be termed a social movement. This is because the activities of the farmers were quite purposeful and had direction, and above all, have persisted. The farmers did not just fight with the police in one day and resume delivering their paddy to the National Irrigation Board the following day. It is important to note that to date, most farmers still haven't resumed delivering their paddy to the irrigation board. Therefore, this persistence on the part of the farmers qualifies the goings on at the Mwea Irrigation scheme as a social movement.

Another important component of social movements is the leadership component. Turner and Killian (1987:223) note that a social movement has a collectivity acting with some continuity to promote or resist change in the society or group of which it is part. A social movement is a group with an indefinite and shifting membership and with the leadership whose position is determined by the informal procedure for legitimizing authority. Therefore, leadership is an important aspect of social movements and at the Mwea, this leadership was provided by the officials of the co-operative society.

Niel Smelser (1963) identifies six determinants of social movements. In order of occurrence they are: -

Structural conduciveness which is the broad social conditions that are necessary for an episode of collective behavior to occur. In the case of Mwea, this can be said to have been the general liberalization of the economy. All the sectors of the economy have been undergoing liberalization since the early 1980s.

Structural strain where various aspects of a system are “out of joint” with another. The refusal of the government to liberalize the rice sub-sector may have acted as the structural strain. Growth and spread of a generalized belief, which provides people with “answers” to their stressful circumstances. Here, the farmers started believing that if they get rid of the National Irrigation Board, all their problems will be solved.

A precipitating factor that creates sharpens and exaggerates other factors. This can be said to have been the refusal of the farmers to deliver their 98/99 crops to the National Irrigation Board stores. The mobilization of participants for action, this was especially done by the area Member of Parliament and the leaders of the Co-operative Society.

The operations of social control what consists of techniques, through which the governing elite prevent, interrupt, deflect or inhibit the accumulation of other determinants. This was done when the government deployed police to the area to try and stop the riots.

Therefore, what happened at the Mwea in January 1998 and persisted till today can be termed as a case of collective behavior and to some extent, that of a social movement.

## 2.2.2 Peasant Revolutions

Peasants have been variously defined. Skocpol (1979) states that by definition, peasants are invariably subjected to non-reciprocal claims on their production. Peasants are primarily agricultural cultivators who must, because of political and cultural marginality and relative socio-economic immobility, bear the burden of varying combinations of taxes, rents, corvée, usurious interest rates, and discriminatory prices. Peasants can also be defined as rural cultivators whose surpluses are transferred to a dominant group of rulers that uses the surpluses both to underwrite its own standard of living and to distribute the remainder to groups in society that do not farm but must be fed for their specific goods and services in turn (Wolf, 1966). Wolf therefore points out that it is correct to define the peasantry primarily in terms of its subordinate relationship to a group of controlling outsiders.

Szymon (1969) observed that in most parts of the world peasants composed an essential part of the feudal structure of their societies. The peasant unit was not merely a productive organization which fed its own members but a source of supply and maintenance for landlords, merchants and other classes. In addition, peasants have also been defined as those whose ultimate security and subsistence lies in their having certain rights in land and in the labor of family members on the land, but who are involved, through rights and obligations, in a wider economic system which includes the participation of non-peasants (Shanin, 1966).

The theme in the above definitions is that peasants do not have full control over their earnings. This is true for the MIS farmers whose earnings over the years have been regulated by the NIB. This has worked to the detriment of the peasants as observed by Mandani (1985), who stated that, the peasant farmer operates with a permanent handicap. His surplus product is regularly siphoned off. His income is barely enough to meet his immediate needs- to replace a hoe, buy some salt or medicine.

He is thus forced to begin the production cycle with roughly the same or even worse technical base than the previous time round. If labor is maimed or shackled by administrative coercion and the product of labor is appropriated through monopolistic market practices we must organize to remove the coercion and change the practice.

Another issue distinguishing between peasants and the rest of the farmers is the fact that, more often than not, peasants do not own the land they cultivate. Wolf (1966) observes that some person or groups of persons sometimes claim right to the land used by the peasantry. Such a person exercises domain over the land, domain meaning ultimate ownership or control over the use of a given area. In the case of Mwea, as revealed earlier in the literature, the land still belongs to the government. This could be one of the reasons why the NIB has been exercising control over the farmers.

It is in view of the exploitation of peasants that they sometimes revolt. Wolf (1966) observes that such uprisings are merely occasional open manifestations of the latent opposition that divides the peasant from those who siphon off his surplus funds. If the peasant will most often economically and ceremonially render unto Caesar what is Caesar's, he will also on other occasions show his hostility towards Caesar's agents.

The emergence of a common myth of transcendental justice often can and does move peasants into action as other forms of organization can not, but it provides only a common vision, not an organizational framework for action. Such myths unite peasants, they do not organize them. If sometimes the peasant band sweeps across the countryside like an avalanche, like an avalanche too, it spends itself against resistance and dissolves if adequate leadership is not provided from without. Peasant movements, like peasant coalitions, are very unstable and shifting alignments of antagonistic and autonomous units, borne along only momentarily by a millennial dream (Wolf, 1966).

Peasant revolutions take various forms. Shanin (1966) observes that in modern society, the patterns of peasant political action and influence are determined by its character as a social entity. The first pattern is independent class action whereby a social class crystallizes in the course of conflict, creates its own nationwide organization, works out its own ideology, aims, and symbols, and produce leaders from the main social classes.

The second type is guided political action whereby the social group concerned is moved by an external uniting power-elite. Lastly we have the fully spontaneous, amorphous political action that can take two forms. First is local riots which suddenly appear as outbursts of accumulated frustration and rebellious feelings. The second form is peasant passivity, which is simply the spontaneous, stubborn, and silent non-fulfillment by the peasantry of government decrees and orders.

Where the power of the state remains intact, therefore, peasant movements are usually drowned in blood, and even if a millennial dream of justice persists among the peasantry, the short-term interest of the individual peasant inevitably takes precedence over any long-term ends. Halted in their course and pushed back to their everyday concerns, therefore, peasants will quickly relapse into quiescence and passivity. The corollary of this statement is however, of great significance for an understanding of the present world scene. If the peasantry is not allowed to relapse into its traditional narrow concerns, peasant discontent can be mobilized to fuel a revolutionary insurrection (Wolf, 1966).

### 2.3 Hypothesis

This study was guided by the following hypothesis:-

H1 The single-buyer policy, employed by the NIB, contributed to the unrest at the Mwea Irrigation Scheme.

H2 Insecurity of tenure is a possible cause of the unrest at the Mwea Irrigation Scheme.

H3 The top-down administrative policy, employed by the NIB, may have resulted into the unrest at the Mwea Irrigation Scheme.

## 2.4 Definition of Key Variables

### Independent Variables

- a) Single-buyer policy: In an independent variable in H1. It is the inability of farmer to sell their produce to any buyer of their own choice but to a state-sanctioned body.
- b) Insecurity of tenure: Is an independent variable in H2. It is a system whereby the farmers do not own the land but operate it on a licence that is renewed yearly subject to satisfactory performance.
- c) The top-down administration policy: Is an independent variable in H3. It is a kind of administration where decisions are made at the top (management) and then communicated to the bottom (the community), for implementation.

### Dependent Variables

The unrest at the Mwea Scheme: refers to a stand-off between the Mwea farmers and the National Irrigation Board, where the farmers refused to deliver their paddy to National Irrigation Board stores.

This was a very sensitive variable and the researcher could not go about asking farmers whether they participated in the unrest or not. The variable was therefore indirectly measured using four other variables. These were also the main issues of contention at the MIS as identified in the hypothesis. These were:-

1. The respondent's view on the appropriateness of the land tenure system. If the respondent stated that the land tenure system is inappropriate, it would be taken as an indication that he/she participated in the boycott. If the respondent stated that the land tenure system was appropriate, it would be taken as a sign of non-participation in the boycott.
2. The respondent's view on the appropriateness of the NIB marketing policy. If the respondent stated that the NIB marketing policy was appropriate, it would indicate non-participation in the boycott. If the respondent stated that the marketing policy was inappropriate, it would indicate participation in the boycott.
3. The respondent's view on the NIB administrative policy. If the respondent stated that the NIB administrative policy was bottom-top, then that would indicate the non-participation in the boycott. If the respondent is of the view that the NIB administrative policy was top-bottom, that would indicate participation in the boycott.
4. The respondent's view on the relationship between farmers and NIB staff. If the respondent stated that the relationship between farmers and NIB staff was strained, this would indicate participation in the boycott. If the respondent is of the view that the relationship between farmers and NIB staff was good, this would indicate non-participation in the boycott.

In summary, this chapter has reviewed literature that is relevant to the topic of study. Importantly the structure and performance of the NIB have been discussed in detail. The chapter has also fit the study in a theoretical framework. Finally, the hypothesis that have guided this study are stated at the end of this chapter.



## CHAPTER THREE

### 3.0 METHODOLOGY

The objective of this chapter is to give the methodological procedure that I followed in obtaining and analyzing the data. Here I intend to describe the site and justify its selection explain the study design, explain the sampling design, state the techniques of both data collection and data analysis.

#### 3.1 Site Description and Justification

Mwea Irrigation Scheme is in Kirinyaga district, which is one of the six districts in central province. It covers 0.3% of Kenya's total area and borders Nyeri and Muranga to the west, Mbeere to the South and Embu to the East (Kirinyaga 1997). The scheme is situated approximately 100km North East of Nairobi on the top hill of Mount Kenya at an altitude of 1,159 meters above sea level and latitudes 0-40 south. The scheme covers an area of 12,140ha out of which 6,041 ha is dedicated to growing rice (Shagava, 1998).

The scheme is divided into five sections; Tebere section producing paddy on 3,285 acres; Mwea - 3,060 acres; Thiba - 2,945 acres; Wamumu - 2,840 acres and Karaba - 2,652 acres. There are 3,381 farmers with their families settled in the scheme each growing rice on a basic holding of 1.6 hectares. All the farmers live in 36 villages on the settlement and each village is located as centrally as possible in relation to the farmers holding (Shagava, 1998).

I purposively selected Mwea Irrigation Scheme because it is, as revealed earlier in the literature, the only government- run scheme that has been operating profitably. Its earnings have even been supporting other schemes that have been recording losses. It is therefore hoped that the study would reveal the root cause of problems at the Mwea. This may help save the scheme from total collapse.

The Mwea Irrigation scheme, being the largest rice scheme in Kenya, is also characterized by a high concentration of farmers. It is also noted that a group of poor people is found in the Mwea division particularly in the Mwea Settlement Scheme villages.

This group lives as tenants in Mwea Irrigation Scheme and grow rice, which they sell to Mwea Rice Mills. They occupy small, congested plots in the settlement scheme (Kirinyaga District Development Plan, 1997 - 2001). In 1997/98 crop year, for instance, the mean net income per farmer from the paddy delivered to the National Irrigation Board was approximately 51,000 shillings. This, for an annual income is very little and can hardly meet all the farmers' needs. Therefore, the plight of these farmers, as revealed in the literature, made me select Mwea as my site of study.

### **3.2 The study design**

The study is exploratory in nature. Exploratory studies attempt to gain familiarity with a phenomenon or to achieve new insights into it, often in order to formulate a more precise research problem or to develop hypothesis( Selltiz et. al. ,1951) They further explain that in formulating exploratory studies, the major emphasis is on discovering new ideas and insights. Therefore, the research design must be flexible enough to permit the consideration of many different aspects of the phenomenon. In this case the main objective of the study is to find out the problems that led to the boycott by the Mwea farmers, however, other aspects such as the attributes of the farmers, the alternatives the farmers have embarked on since the boycott, and the future of the scheme will also be studied.

Selltiz et al( 1951) and Ackoff(1953) outlined the methods in exploratory studies. They stated that first, a review of the related social science literature and other pertinent literature has to be carried out. Second, a survey of people who have had practical experience with the problem has to be carried out. Lastly, there has to be an analysis of "insight-stimulating" examples. This study has employed the three outlined methods.

The researcher opted for an exploratory study in order to have the flexibility to report on an array of issues concerning the unrest at the Mwea scheme. While other research designs concern themselves with just one aspect of the problem, an exploratory design allows one room to tackle many aspects of the problem.

This yields a lot of much needed information especially on fairly new occurrences like the Mwea farmer's boycott. It is therefore believed that this study will yield information that can help future researchers formulate more precise study questions on the same or similar problems.

### **3.3 Sampling.**

In any scientific study, there is always need to come up with an acceptable sampling design. Singleton et al (1988: 137) define a sampling design as that part of the research plan that indicates how cases are selected for observation.

Schutt (1996) notes that sampling is unnecessary if all the units in the population are identical. In this study however, individual farmers may have varying opinions concerning the study questions. This therefore creates the need for sampling to tap all the views of the population. Schutt (1996) further observes that the reason why social scientists don't often attempt to collect data from all members of relatively large population is simply that it would be too expensive and time consuming. Therefore, limited resources at my disposal (time and money) make it difficult for me to interview all the 3381 tenant farmers and the 75 National Irrigation Board field staff. That is why I needed to select a representative sample from the two categories of respondents.

### **3.3.1 Target population and unit of Analysis.**

The target population for the proposed study was both the tenant farmers and the National Irrigation Board field staff. The tenant farmers are those farmers who grow rice on the basic holding of 1.6 hectares.

The farmers also doubled as the unit of observation and unit of analysis. This is because I collected information from them, about their relationship with the National Irrigation Board.

This being an exploratory study, the farmers and NIB staff were selected as the observation units since they have had practical experience with the problems at the Mwea scheme.

The other observation unit is the National Irrigation Board staff. This category of respondents was to provide information, not about themselves, but about the running of the National Irrigation Board and the relation between the National Irrigation Board and the farmers. Therefore, the National Irrigation Board was the other unit of analysis in this case. I also sought information from the officials of the farmers' co-operative (observation unit) about both the farmers and the National Irrigation Board (units of analysis).

### **3.3.2 Sample size.**

The most important determinant of my sample size is heterogeneity of the population. Singleton et al (1988:158) observes that the more heterogeneous the population with respect to the characteristic being studied, the more cases required to yield a reliable sample. Literature revealed that most the farmers have not been participating in the marketing of their produce and that most of them have now boycotted delivering their paddy to the National Irrigation Board stores.

The farmers' boycott was extensively covered by the press hence the researcher had an idea on what was happening at the Mwea Irrigation Scheme. There was an element of homogeneity in the population as press reports indicated that a majority of the farmers had boycotted delivering their paddy to the NIB. Therefore, for the survey, I interviewed 150 farmers.

### 3.3.3 Sampling design.

In my sampling design, I combined both probability and non-probability sampling methods. In probability sampling, all cases have equal chances of being included in the final sample. This is made possible by the process of random selection. In non-probability sampling, the chances of selecting any case are not known because cases are non-randomly selected.

As stated earlier, I purposively selected Mwea division of Kirinyaga district as my study area. This is a non-probability sampling technique where the researcher relies on his/her expert judgement to select units that are representative or typical of the population. The general strategy is to identify sources of variation in the population, and then to select a sample size that reflects these variations. I therefore selected Mwea division because it epitomizes the countrywide discontent of the farmers with some government policies.

As stated earlier, I also employed probability-sampling techniques. Some of these included multi-stage cluster sampling, simple random sampling and systematic sampling. Practically, since the scheme is divided into five sections, I proceeded to use the sections as clusters. This is because they are geographical groupings, which are mutually exclusive, that is, a farmer can only belong to one section. Having identified my clusters, I then used simple random sampling to select two clusters. Mwea and Tebere sections were randomly selected at this stage.

The second stage comprised selecting five units from the selected two clusters (a unit is a group of farmers whose paddy fields form one large block). I then obtain a complete list of all the units in the two sections from the Mwea Rice Growers Multipurpose Co-operative Society and used simple random sampling to select the five units I required.

Below is a list of all the units in the Tebere and Mwea sections respectively.

**Table 1: List of Units in Tebere Section**

Unit	Acreage	Number of farmers
T2	64.5	11
T5	306.75	69
T6	143.5	28
T7	262	58
T8	400	80
T11	318	64
T13	190	38
T15	81.75	14
T16	203.75	38
T17	69	10
T18	160.25	39
T19	268.5	49
T20	319	67
T21	201	39
T22	183	40
T23	120	28
T25	65	10

**Table 2: List of Units in Mwea Section**

Unit	Acreage	Number of farmers
M1	216.75	47
M2	107.25	23
M3	128.25	27
M4	331.75	66
M5	120.5	23
M6	166.5	31
M7	107	19
M8	70.5	15
M9	174.5	35
M10	71.75	15
M11	19.75	39
M12a	74	18
M12b	73.4	25
M13	176.5	38
M14	265.75	54
M15	136.5	27
M16	308.25	62
M17	343	68

Having listed all the units in Mwea and Tebere sections, I proceeded to randomly select five units from which I selected my final sample. The following units were selected;

Unit	Number of farmers	No. selected
T7	58	35
T20	67	40
T22	40	24
M6	31	18
M14	54	33
<b>Total</b>	<b>250</b>	<b>150</b>

In the third stage, I first of all obtained lists of farmers in the selected five units from the respective unit leaders. I combined these lists, unit by unit, to form one list. I then proceeded to use systematic sampling to draw my final sample. Since I needed to select 150 farmers from 250 farmers, I proceeded as follows:-

$$250 \div 150 = 1.67$$

n is therefore 1.67

I therefore needed to select every 1.67<sup>th</sup> farmer from the entire list of 250 farmers. I therefore proceeded as follows:-

$$1.67 \times 0 = 0$$

$$1.67 \times 1 = 1.67 \text{ approximately } 2$$

$$1.67 \times 2 = 3.34 \text{ approximately } 3$$

$$1.67 \times 3 = 5.01 \text{ approximately } 5$$

$$1.67 \times 4 = 6.68 \text{ approximately } 7$$

$$1.67 \times 5 = 8.35 \text{ approximately } 8$$

$$1.67 \times 6 = 10.12 \text{ approximately } 10$$

.....

$$1.67 \times 150 = 250.40 \text{ approximately } 250$$

I therefore selected farmers numbers 2, 3, 5, 7, 8, 10 etc up to farmer number 250. I ended up with 150 farmers selected systematically from a total of 250 farmers. The five unit leaders from the selected units and the MRGM scheme manager provided my sample for case studies. I selected them purposively because I believed they would have an in-depth knowledge on the goings on at the MIS.



In selecting the officials of the National Irrigation Board to be interviewed, I had proposed to use disproportionate stratified random sampling. I had opted to create strata based on their cadres that is: top managers comprising the Senior Scheme Manager and Senior Irrigation Officer; middle level staff comprising Irrigation Managers and Head Water Guards; and junior staff comprising Water Guards and cultivators. I wanted to select two respondents, using simple random sampling, from each stratum. I hoped to interview a total of six NIB staff. However, this was not to be. At the NIB site office, I was referred to the NIB headquarters in Nairobi. Here, I was only able to talk to one officer, the NIB scheme manager at the time of the boycott. He gave a very brief interview and handed me a brochure.

### **3.4 Techniques of data collection**

I employed both quantitative and qualitative research methods in data collection. Quantitative studies are those that seek to answer “why” question by testing hypotheses about causal relationships such as experiments and surveys (Singleton et al, 1988). The quantitative technique that I employed is survey method.

#### **3.4.1 Survey method (Quantitative)**

This study is mainly a survey and any other method used in collecting data is supplementary to the survey. In a typical survey, the researcher selects the sample of respondents and administers a standardized questionnaire to them (Babbie 1995:257). Having explained how I will obtain a sample of farmers to interview, I therefore prepared a questionnaire and administered to them. I sought information concerning the factors that led to the unrest at the Mwea.

The research relied heavily on qualitative research methods in collecting data. Filstead (1970:6) defines qualitative methodology as those research strategies, such as participant observation, In-depth interviewing, total participation in the activities being investigated, fieldwork, etc, which allow the researcher to obtain firsthand knowledge about the empirical social world in question.

### **3.4.2 In-depth interviews and Key Informant Interviews (Qualitative)**

The research heavily relied on qualitative techniques of data collection. This was because of the historical nature of the study. One qualitative method that I employed was in-depth interviews. I had hoped to interview NIB staff using this method. However, I was only able to interview former NIB scheme manager using this method.

Here, I used an unstructured questionnaire with open-ended questions in order to elicit detailed information on the running of the scheme and how this may have caused the unrest. The respondent gave a very brief interview that did not warrant separate analysis, but his views were incorporated in the findings.

Another qualitative technique of data gathering that I employed was Key Informant Interviews. Here I was seeking detailed information on the farmer's experiences at the Mwea. I let the farmers narrate their experiences at the scheme occasionally guiding them when they seemed to digress. I interviewed unit leaders and the current MRGM scheme manager using this method. The information gathered using this technique is more detailed and is in the form of a narration.

### **3.5 Data Analysis**

In this study, I employed two main methods of data analysis:

- (a) Descriptive statistics:- these are simple statistical methods, which do not support or falsify relationships between variables, but simply help in the description of data. These statistical tools perform the first function of statistics thus they afford condensed and summarized description of units with regards to innumerable or measurable characteristics (Haggod, 1969:149). They are therefore, the most basic statistics, which are used mainly to summarize data. They include the measures of central tendency such as mean, mode, median and percentages. I used descriptive statistics to analyze the data obtained through the survey method.
- (b) Key informant interviews:- this applied mainly to the data collected qualitatively. This data is presented on a case by case basis and a sociological analysis is done.

In summary, this chapter has explain the methodology that I employed in this study. The site has been described and justified, the study and sampling designs have been outlined and finally, the techniques of data collection and analysis have been explained.

## CHAPTER FOUR

### 4.0 DATA PRESENTATION

In this chapter the research findings are presented by the use of descriptive statistics. Among the statistical tools employed are the arithmetic mean, range, percentage and tables. The chapter is organized in various sub sections namely:- history of the scheme, characteristics of the respondents, land tenure system, NIB marketing policy, farmers' involvement in decision making, current sources of assistance in production and marketing, the boycott - causes and targets, consequences and the way forward. Also key informant interviews are presented and an analysis given. The objective of this chapter is to enable the reader have a quick grasp of the data on the struggle by Mwea Irrigation Scheme farmers to control marketing of their produce.

### 4.1 HISTORY OF THE SCHEME

The researcher interviewed a total of 150 respondents. All of them were tenant farmers at the MIS (Mwea Irrigation Scheme). The Mwea Scheme as stated in the previous chapters was brought to birth by the crisis of the emergency. In 1953, the Kikuyu reserves were overcrowded with people "repatriated" from the Rift Valley where many of them had been working on European farms, and officials were seeking a long term solution to the problem, which they posed. At the same time the number of Kikuyu detained in connection with the emergency was rising and camps had to be set for them (Chambers 1973).

The knowledge that under experimental conditions paddy rice had been grown in the area suggested that there might be a viable economy for a settlement scheme. Also, irrigation was attractive both because labor intensive construction works could provide productive use for detainee labor, and because an irrigated settlement could be used to establish landless families securely.

These pressures and opportunities converged to drive forward a flow of resources into the area to build up personal and organizational commitments, which were to generate a major irrigation system (Chambers, 1973).

Geographically, the MIS is located in Kirinyaga District, Central province in the Republic of Kenya. The scheme is approximately 100Km North West of Nairobi at an altitude of 1159 metres above sea level. The construction of the scheme, then called Mwea - Tebere, started in 1954 and gradually expanded to 2000 hectares at independence time in 1963. Construction was undertaken mainly by Mau Mau detainees (MRGM field progress report, 1999 - 2000).

The MIS was a department in the Ministry of Agriculture until June 1966 when the NIB (National Irrigation Board) was formed by an Act of Parliament to manage the scheme. The scheme then expanded through development of Thiba, Wamumu and Karaba sections that by 1973 brought the total area under cultivation in Mwea to 6000 hectares essentially making Mwea the largest rice-growing scheme in Kenya. The NIB has been managing the scheme ever since until November 1998 when Mwea farmers through their Co-operative, (MRGM- Mwea Rice Growers Multi - purpose Co-operative Society Limited) took over control of the scheme (MRGM Field progress report, 1999 - 2000)

#### **4.2 BACKGROUND CHARACTERISTICS AND EXPERIENCES OF THE RESPONDENTS**

As stated earlier, the researcher interviewed a total of 150 respondents all of whom were tenant farmers at the MIS or farmers' children who were in charge of the holdings on behalf of their parents. Apart from the fact that all the respondents were farmers in one way or the other, these farmers of MIS had varying characteristics such as age, level of education, sex, marital status, income and how they acquired their holdings at MIS. The distribution of the farmers by these variables is the subject of this section.

### 4.2.1 Distribution of farmers by age

The mean age of the respondents was 50.6 years with a mode of 40 years and a median of 50 years. The youngest respondent was 22 years while the oldest was 89 years. Table 1 shows the distribution of the respondents by age.

**Table 3 - Distribution of the respondents by age**

Age	Frequency	Cumulative Frequency	Percentage	Cumm. Percentage
20 - 29	6	6	4	4
30 - 39	26	32	17.5	21.5
40 - 49	40	72	26.8	48.3
50 - 59	35	107	23.5	71.8
60 - 69	27	134	18.1	87.9
70 - 79	12	146	8	98
80 - 89	3	149	2	100
	<b>149</b>		<b>100</b>	

N=149

Source; field data

Note; one farmer could not recall his/her age.

Nearly half the respondents (48.3%) were below 50 years. These are mainly those who have inherited the holdings upon the demise of their parents or those whose parents are too old hence they have to assist. Those above 60 years comprise 28%. These mainly came to the scheme as detainees or in the early years after independence.

It is important to note that most of these respondents (67.8%) are aged 30 - 60 years. For most employed people, this is normally a period of career growth and acquisition of assets to be used in old age.

However, for the tenant farmers, this may not be easy because of the many problems the farmers are experiencing which will be explained later, hence the need to address the problems at the MIS.

#### 4.2.2 Farmers' level of education

In this study, level of education was used as a variable to mean the highest stage of formal education attained by the respondents. Among the categories identified were none, primary, secondary, college and adult education. Table 2 shows the distribution of respondents by level of education.

**Table 4** Distribution of farmers by level of education

Level of Education	Frequency	Percentage	Cumm. Percentage
None	8	12	12
Primary	81	54	66
Secondary	46	31	96.7
College	3	2	98.7
Adult Education	2	1	100
	<b>150</b>	<b>100</b>	

N=150

Source; field data

More than half the respondents (66%) had attained a maximum of primary level of education. Only 32.7% of the respondents had attained secondary level of education and above. It was therefore established that in general, literacy levels at the MIS are low by the fact that a majority of the respondents had not gone beyond primary school. Among the reasons quoted for the low literacy levels was lack of funds among farmers.

Many a farmer stated that they dropped out of school because their parents could not afford the school fees. The other reason is the lack of motivation. Many of the respondents saw themselves ending up as farmers anyway so they did not see the value of education.

These findings closely tie with Njoka's (1995) findings that most of his respondents' husbands had either primary level of education (39.6%) or secondary level of education (27.3%). I relate these two findings because most of my respondents were male as will be discussed later.

The low literacy level may have contributed to the relative calm that prevailed at the MIS for a long time since the inception of the scheme. However, the wind of democratization that swept through the country in the early 90s may have led to the enlightenment of the MIS farmers. This may have led to increased political participation by the farmers hence agitation for change.

#### **4.2.3 Distribution of farmers by sex**

A majority of the respondents (86.7%) were male while only 13.3% were female. It is important to note that the sex imbalance emerged in the field as the study did not specifically target men. The imbalance can be attributed to the fact that like in most of Kenya, the cultural orientation at MIS is patriarchal. This implies that if there is any property, it will be registered in the name of the head of the household, who in most cases will be the man. Hence most holdings at MIS are registered under the men.

The women who were interviewed had either inherited the holdings from their husbands or parents (in the absence of a big brother). There were however a few cases of women who had been allocated holdings by the NIB.



Njoka (1995) also made the observation that men appeared to be more involved in out of door activities represented by paid employment and own works such as masonry and tailoring. Since in this study, the main economic activity was rice growing more men would be involved as compared to women.

It was not, therefore by design that more men, compared to women were interviewed but it was as a result of the continued operation of patriarchal socio-economic systems in spite of apparent modernization (Njoka 1995). The study targeted tenant farmers under whose names the holdings are registered and most of these turned out to be men.

#### **4.2.4 The marital status of farmers**

Most of the respondents (92.7%) were married while only 4% were single. Another 2.7% were widowed while 0.7% were separated.

The Mwea people like many of their counterparts in other parts of rural Kenya still uphold their traditional values. In most traditional Kenyan cultures, the institution of marriage is very well respected. This may explain why a vast majority of the respondents were married. This is because things like divorce and separation are abhorred.

#### **4.2.5 Acquisition of holdings at MIS**

Many of the respondents (41.3%) acquired their holdings at MIS through allocation by NIB. Another 38.7% inherited the holdings from their parents.

This is because most of the farmers settled at the time of the emergency have since passed away leaving the holdings to their children or wives. A further 12.7% respondents got their holdings through allocation by ALDEV (African Land Development Organization).

The last group comprises of very old farmers who were brought to the MIS as detainees to provide free labor in the digging of canals and building of houses. When this was over, some of them were allocated holdings subject to “satisfactory conduct” and they started growing paddy. Also, some 7.3% respondents were helping their parents who were either too old or too sick to manage the holdings given the strenuous work involved. These respondents are therefore in charge of farm operations on behalf of their parents.

The issue of acquisition of holdings at MIS is closely tied to the land tenure system that will be elaborately discussed later. At this point, it is important to note that all the respondents could not call the MIS holding their ancestral land. They were just allocated and this allocation as mentioned earlier could be revoked anytime.

The farmers as a result do not feel very secure since land possession and control in East Africa is very intimately tied up with social life. As Mbithi observed, one sees the continuity of the family and family name through a system of inheritance of a piece of land (Mbithi 1974).

#### **4.2.6 Distribution of farmers by levels of income**

Income in this research was used to measure the respondent’s financial status. It is worth noting that most of the respondents (89.4%) rely solely on paddy production. Only 10.6% of the respondents indicated that they engage in other income generating activities such as horticulture and business. This finding agrees with Singleton’s (1983) observation that only 10% of MIS farmers have extra land for food cultivation. However, the latter group of farmers could not tell how much income they earned from those other activities. Hence, the researcher considered paddy production as the main income earner for the MIS farmers.

It is also important to note that the scheme is no longer under the NIB. After the violent confrontation of 1998 and 1999 - whereby the NIB attempted to take paddy from the farmers forcefully after the farmers refused to deliver the paddy to NIB stores - the farmers started marketing their paddy through their own co-operative, MRGM (Mwea Rice Growers Multi purpose Co-operative Society Limited). The farmers get inputs and services from the same co-operative and upon harvesting, they deliver the paddy to the co-operative. It was therefore observed that in one way or another MRGM has replaced the NIB as the agency through which the farmers both produce and market their paddy.

Owing to the above scenario, it was found necessary to compare the income under the NIB and that under the MRGM. For purposes of uniformity, I had to settle for the income earned in one particular year. I settled for the figures of 1997 in order to obtain income earned under NIB. Being the last year that the NIB paid the farmers, it was easier for the farmers to remember the money paid to them. The other set of income obtained was income under MRGM. It is important to note that by the time of completion of field-work (September 2000), the MRGM had only paid the farmers once since it took over. This was in 1999. Therefore the income earned that year was taken as income under MRGM.

Another point to note is that many farmers were not aware of how much money was deducted by either NIB or MRGM for the inputs and services provided to them. All they know was how much money was given to them after all the deductions were made, what they commonly refer to as "final pay out". Therefore, farmers' income per annum was construed to mean that final pay out the farmer got from NIB and MRGM for the years specified above.

Table 5 - below summarizes the distribution of respondents by income under NIB:-

**Table 5: The distribution of respondents by annual income under NIB (1997)**

Income	Frequency	Percentage	Cumm. Percentage
00 - 50,000	102	84.3	84.3
51,000 - 100,000	16	13.2	97.5
101,000 - 150,000	2	1.7	99.2
151,000 - 200,000	0	0	99.2
201,000 - 250,000	1	0.8	100
	<b>121</b>	<b>100</b>	

N=121

Source; field data

Note: Some 29 respondents could not remember their income.

The mean income per annum was Kshs. 17,067. The maximum income was found to be Kshs. 216,000, while 26 respondents (17.3%) recorded no income at all in the year 1997. This means that after the deductions were made, there was nothing to be paid to these farmers. Some of these farmers even recorded a negative income. This means that these farmers (with negative final payouts) had to pay the NIB some money in order to receive services the following year.

The range was Kshs. 216,000/-. This points to a large gap between the haves and have-nots. This was also observable during fieldwork in that whereas some farmers were generally prospering (a few even had cars), some farmers were struggling to get basic foodstuffs.

The average annual income of Kshs. 17,067 is about the same as the one given by Tanaka (1991), which was Kshs. 17,431 and the one given by Njoka (1995), which was Kshs. 16,543.

From the above, it is possible to deduce that the mean monthly income is (17,067 ÷ 12) Kshs. 1,422. Given an average family size of 9 persons per family (Tanaka 1991) the farmers find it difficult to afford basics such as food, clothing, education and healthcare.

This study therefore concurs with both Tanaka (1991) and Njoka (1995) in concluding that under the NIB the incomes of MIS farmers were inadequate for the fulfillment of such basics as food, health and education. There are, therefore high levels of poverty at the MIS as a result of the low incomes the farmers used to receive from the NIB year after year.

As stated earlier, the income under MRGM was also sought. Table 4 below summarizes annual income under MRGM.

**Table 6: Frequency distribution of farmers by income under MRGM (1999)**

<b>Income</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Cumm. Percentage</b>
00 - 50,000	57	46.3	46.3
51,000 - 100,000	39	31.7	78
101,000 - 150,000	17	13.8	91.8
151,000 - 200,000	10	8.2	100
	<b>123</b>	<b>100</b>	

N=123

Source; field data

Note: 27 respondents could not recall their income.

Under the MRGM, the mean income per annum improved to Kshs. 36,948 hence a mean monthly income of Kshs. 3,079. Therefore it can be observed that the farmers' income has nearly doubled since the MRGM took over. This increase can be attributed to the better prices offered by the MRGM to the farmers and a decrease in the number of deductions made on the farmers final pay out.

This study confirmed that after the MRGM take over, farmers are now not subjected to unnecessary taxes and levies. Further, farmers are no longer charged for services not rendered such as road maintenance. They are therefore able to maintain a higher balance on their final pay out than when they were under the NIB despite having delivered less paddy to the MRGM than they used to deliver to the NIB.

Despite the increase in farmers' income as a result of the shift in management from NIB to MRGM, a new kind of problem has emerged as regards the final pay out. MRGM takes longer to give the farmers the final pay out as compared to the NIB.

Under the NIB, the farmers would receive the final pay out mostly by June while with MRGM final pay out now delays even till December. This, many farmers attributed to the lack of a ready market. I will also point out here that the milling of paddy now takes very long since the MRGM now uses small single pass mills. This may also be contributing to the delay in marketing of rice. These mills also do not have graders that separate broken rice from unbroken rice. The quality of the milled rice is therefore lower and this may also be a possible cause for the lack of a ready market for the rice.

Further, some farmers observed that the MRGM does not have access to credit facilities hence the delay in paying farmers. It is important to note here that the NIB had access to credit facilities and could pay the farmers even before the rice has been marketed. The Government guaranteed the credit facilities. The Government does not extend the same service to the MRGM hence the latter's inability to obtain credit. Despite this clear case of lack of state support, there is a general improvement in the living standards of the farmers as a result of the increased income.

#### 4.2.7 LAND TENURE SYSTEM

Mbithi (1974) defines land tenure as the right to hold, use and possess the natural resources found in the land profile from the atmosphere (roof height) to a few metres below the land surface.

As stated earlier, land possession is closely tied to social life. One often hears such statements as “my great grandfather settled here, he is buried here, my grandfather farmed this land, and I will continue to hold it for my children”. Thus, land is tied up with the conception of responsibility to “ancestral spirits”. Thus in East Africa, continued stay on a particular piece of land is viewed as one’s responsibility, as one has to pass on that parcel of land to the next generation.

At the MIS, all the respondents interviewed stated that they were mere licensees or tenants as they are commonly referred to. They do not have title deeds for the plots on which some of them have lived and worked for over 40 years. The same observation was made by Veen (1973) who stated that the tenants are in strict legal terms “licensees” not owning the land but cultivating it under a license.

The land tenure system at MIS is therefore leasehold. The farmers are initially given one-year leases upon arrival at the scheme. The lease is automatically renewed year after year. However, the renewal is subject to satisfactory performance of the individual farmer. Hence, the leases could be revoked by the scheme manager.

We can therefore observe that despite the emphasis on land adjudication and registration by the Kenyan government, the process was not all inclusive as some portions of the population, such as the MIS farmers, were left out with no land to call their own. It is not surprising therefore, that only 2% of the respondents reported that the system of land tenure, under which they operate was appropriate. According to the majority of the respondents (98%) the leasehold system of land tenure was inappropriate, as they would prefer freehold land tenure system backed by a land title deed. The overwhelming number of farmers who stated that the land tenure system was inappropriate can be taken to indicate overwhelming support for the unrest. This is because in the literature reviewed, land tenure has been found to be one of the biggest bones of contention at the MIS. This finding re-enforces my second hypothesis which states that insecurity of tenure is a possible cause of the unrest at Mwea Irrigation Scheme.

Farmers reported several reasons why they preferred freehold land tenure system. Many of the respondents (60%) stated that they preferred freehold land tenure system because it would assure them of security of tenure. Therefore, insecurity of tenure at the MIS can be said to be a major cause of discontent among farmers. The same observation was made by Ruigu (1990) who stated that insecurity of tenure is a major concern among all tenants most of whom were land-less before being settled and would prefer freehold tenure backed by a title deed. The MIS farmers want some form of land reform which as Mbithi (1974) observed, is a major political tool for managing rural peasants by arresting the developments of a land-less rural class which may become socially or politically marginal and thus a potential for social disruption. In the case of MIS, it seems land reform was not done early enough to arrest the boycott by farmers.



Secondly, 30.4% respondents stated that they preferred freehold land tenure system in order to be able to secure bank loans. It is a well-known fact that Kenyan banks recognize land title deeds as security for loans.

The Mwea farmers are therefore disadvantaged since they do not have title deeds for that land. They therefore, have not been able to diversify their income generating activities due to lack of credit facilities.

A third reason justifying preference of freehold land tenure rather than leasehold land tenure is the ability to make decisions on such issues as sub division and sale of land, farm processing such as planting and weeding and on marketing. It is important to note that the NIB rules do not allow the farmers to either sub divide the holding among his/her heirs or even to sell the land. A farmer was only allowed to nominate one person to succeed him. Paragraph 7(1) of the Irrigation Act states thus:-

“A licensee may at any time after the date of being granted a license nominate, in writing to the manager, another person to succeed him as licensee in the event of his death ...”

We are therefore confronted with a situation whereby the farmers as a result of not owning the holdings could not make decisions pertaining to the same. They just had to follow the rules governing the scheme as clearly spelt out in the Irrigation Act. This finding re-enforces the second hypothesis which states that insecurity of tenure is a possible cause of the unrest at the Mwea Irrigation Scheme.

#### 4.2.8 NIB MARKETING POLICY

An overwhelming majority of the respondents (98.7%) reported that the NIB employed the single buyer policy. All the paddy harvested was delivered to the NIB for processing and subsequent marketing save for the 12 bags the farmers were allowed to keep for domestic consumption. The NIB can therefore be termed as a monopsony. This, as defined by Bates(1981) is a single buyer of produce or a statutory marketing board.

The farmers were not free to sell their paddy to whoever offered the best price. As a practice, therefore the NIB employed the single buyer policy in marketing where it (the NIB) was the sole buyer of all paddy grown at the MIS. The same is stipulated in the Irrigation Act, which in paragraph 4 (2) states thus: -

“The licensee shall deliver all paddy harvested to the manager at the collection station appointed by the manager, or shall otherwise dispose of it in accordance with the instructions of the manager”.

It is in light of the above that most respondents (90%) reported that the NIB marketing policy was very inappropriate. Among the reasons cited for the inappropriateness of the NIB marketing policy (by 17.4% respondents) was the non-involvement of farmers in decision making. This is because the farmers were not consulted even on such crucial issues as paddy prices. Since the NIB was the sole buyer of all the paddy grown, it unilaterally fixed the prices without consulting the farmers.

Another reason quoted (by 30.2% of the respondents) for the inappropriateness of the NIB marketing policy was that the price paid to farmers for their paddy was too low. Since the NIB was a monopsony (single buyer) and the Irrigation Act did not allow the farmers to sell their paddy to any other buyer other than the NIB, the farmers had no choice but to accept whichever prices the NIB offered for paddy.

We can therefore conclude that the farmers did not support the marketing policy of the NIB. This is because being a monopsony, the NIB was set up not for the good of the farmers but to serve government needs and demands. A similar observation was made by Bates (1981:1) who stated thus:-

“By using the price setting power of the monopsonistic marketing agencies, the states have therefore made the producers of cash crops a significant part of their tax base and have taken resources from them without compensation in the form of interest payments of goods and services returned”.

This obvious dissatisfaction with the NIB marketing policy by a large number of the farmers can be taken as an indication of overwhelming support for the boycott. This is because the actual boycott started at the time of marketing. The farmers harvested their paddy and refused to deliver it to the NIB. It can therefore be said that most farmers supported the boycott.

As stated earlier, farmers now market their paddy not through the NIB but through the MRGM. The MRGM has addressed some of the issues raised here by the farmers. These will however be examined in a later section and a comparison made. The findings here re-enforce the first hypothesis which stated that the single-buyer policy employed by the NIB contributed to the unrest at the Mwea Irrigation Scheme.

#### **4.2.9 DECISION MAKING BY NIB**

Most farmers (95.3%) reported that the NIB made all the decisions. They reported that as farmers, they were not involved at all in decision making. One farmer observed thus:-

“The management board of the NIB had five members. Three from the NIB and two farmers. The three board members from the NIB could vote without the farmers since they were a majority. Even if the two farmers were around, they could easily be out-voted”.

The NIB can be said to have been fixing very low prices to enable it reap maximum profits. This can be said to have contributed to the high poverty levels observed in the area. Many a farmer could not afford basics such as food, clothing education and healthcare.

The NIB marketing policy was also thought to be inappropriate because of the inhuman treatment that the farmers were subjected to during harvesting. This was cited by 16.7% of the respondents. At harvesting, the NIB would deploy administration police to guard every exit from the paddy fields. This was aimed at ensuring that the farmers did not take any paddy home until permission has been granted for a farmer to take home the 12 bags for domestic consumption.

If a farmer was caught smuggling any paddy out of the fields without permission, he/she would be beaten and sometimes arrested and charged with stealing. How can a farmer steal paddy which he grew himself? All this was because the NIB, being the single buyer of all paddy grown at MIS, believed the paddy belonged to itself and no one could take any paddy without written permission.

The NIB marketing policy was also thought to be inappropriate (by 11.4% respondents) because the farmers were left with too little paddy for home consumption. The NIB was the one to decide how many bags of paddy a farmer could keep for home consumption. For those who met their targets, that is delivered the amount of paddy stipulated by the NIB, usually 120 bags of paddy, they were allowed to keep 12 bags of paddy.

After milling, one could end up with only 8 bags of rice to feed their family till the next crop is harvested, usually after one calendar year. As for those who did not meet their targets, they would have to top up their deliveries to NIB with what they would have used for domestic use hence take home less.

We can therefore conclude that the farmers did not support the marketing policy of the NIB. This is because being a monopsony, the NIB was set up not for the good of the farmers but to serve government needs and demands. A similar observation was made by Bates (1981:1) who stated thus:-

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Most farmers (95.3%) reported that the NIB made all the decisions. They reported that as farmers, they were not involved at all in decision making. One farmer observed thus:-

“The management board of the NIB had five members. Three from the NIB and two farmers. The three board members from the NIB could vote without the farmers since they were a majority. Even if the two farmers were around, they could easily be out-voted”.

It is in light of the above that 97.3% of the respondents reported that they were very dissatisfied with the level of farmers' involvement in decision making. These farmers felt that they were not involved at all and that decisions were just imposed on them. This view was also put across by Moris (1973) who observed that the fundamental problem of the "Mwea System" is that it is unbalanced. Highly specialized and expert agronomists have been put in a situation where they control many aspects of life for many thousands of people. The number of farmers dissatisfied with the level of farmers' involvement in decision making can be said to be indicative of large support for the boycott. This draws from the fact that non-involvement of farmers in decision making has been one of the main issues at the MIS that have caused discontent among the farmers.

The farmers suggested several ways through which they can be involved in decision making. One such way, cited by 75.2% of the respondents was that involvement of farmers in decision making can be done through seeking of farmers' opinion and negotiating with them through meetings. These farmers felt that before any decisions are made, the NIB should have been calling farmers to a meeting to present mere proposals. These would then be subjected to rigorous debate and negotiation between the two parties. The decision made would therefore be favorable to both parties.

Another way of involving the farmers in decision-making, cited by 14.8% of the respondents was granting the farmers independence to decide for themselves. This group felt that it was not possible for the farmers to participate in decision making while still under the NIB or anyone else other than fellow farmers. They were therefore calling for the total emancipation of the farmers so that they can be able to make their own decisions independently without any input from other quarters.

Finally, 6% of the respondents reported that farmers can be better involved in decision making if the resolutions passed at the farmers' meetings were implemented. These farmers noted that, even under the NIB farmers would sometimes be called to a meeting and they would come up with certain resolutions. However, since the NIB had more or less already made the decision and was just consulting the farmers as a matter of formality, whatever the farmers resolved at these meetings was never implemented. The farmers' input was disregarded as the NIB went ahead and implemented whatever it had resolved on its own. One wonders the purpose of calling the farmers' meetings in the first place!

The top-down administrative policy results in a structure and style, which is authoritarian, hierarchical and punitive. This is because there is no synchronized flow of information from the center and a strong feedback from the bottom (community). This therefore means the real problems faced by the change agents and target community in the development programme never comes out clearly (Muia, 1991).

The issue of non-involvement of farmers in decision making is closely tied to the top down administrative policy, which as revealed earlier in the literature, the NIB succumbed to. This policy may have denied the farmers any chance at participating in decision making hence may have led to discontent among the farmers hence may have contributed to the unrest at the MIS. This re-enforces the third hypothesis of this study, which states that the top-down administrative policy has contributed to the recent unrest at the MIS.

#### **4.2.10 RELATIONSHIP BETWEEN THE NIB AND THE FARMERS**

Asked to comment on the relationship between them (the farmers) and the NIB staff, a majority of the respondents (89.3%) reported that it was very strained. Several reasons were quoted for the strained relationship between the farmers and the NIB staff.

Some 24.7% of the respondents cited non-involvement of farmers in decision making as the reason for the strained relationship between NIB staff and farmers.

As explained earlier, the NIB used to make decision unilaterally. The farmers were never consulted and even if they were, their input was always discarded. This bred bad blood between the NIB staff and the farmers because in any association both parties must listen to one another. Here was a situation where only the farmers listened to the NIB. The reverse never happened hence the strained relationship.

Another reason cited (by 22% of the respondents) for the strained relationship between the NIB staff and the farmers was the fact that NIB had harsh rules. We may note that the NIB was brought to birth by the Irrigation Act (cap 347 of the laws of Kenya), which also stipulates how the NIB should run the schemes as well as detailing what is expected of the tenant farmers. This act is viewed as draconian as it gives the scheme manager total control over most aspects of the farmers' life. For instance paragraph 8 (I) of the Irrigation Act states thus:-

- a) A licensee shall devote his full personal time and attention to the cultivation and improvement of his holding and shall not, without the permission, in writing of the manager allow any other person to occupy his holding or to cultivate it on his behalf.
- b) A licensee shall maintain the boundaries of his holding in a manner satisfactory to the manager.
- c) A licensee shall maintain at all times his holding in a manner satisfactory to the manager.
- d) A licensee shall maintain to the satisfaction of the manager all Irrigation channels and works on or serving his holding .....
- e) A licensee shall not absent himself from the scheme for longer than one month without prior approval, in writing of the manager.

The above is just a small glimpse of what the Irrigation Act states. It basically gives the scheme manager total control over the farmer (hereby referred to as the licensee). To the farmer these rules are considered to be very harsh hence a cause of the strained relationship between the NIB staff and the farmers.



Another reason for the strained relationship between the NIB staff and the farmers, closely tied to the issue of harsh rules is the fact that the NIB staff treated the farmers badly. Some 23.3% respondents felt that farmers were subjected to inhuman treatment by the NIB staff. Farmers expressed concern that their social welfare never mattered to the NIB staff, for as long as they (farmers) kept on cultivating paddy. All the NIB staff was interested in was paddy it did not matter the conditions under which it was cultivated. One widely quoted example is the fact that NIB vehicles could not carry farmers. They were meant for NIB staff and their families only. Even if a farmer was sick to the point of dying; an NIB vehicle would not take the farmer to hospital.

In addition, the NIB never bailed farmers out of financial problems. Even if a farmer's children were sent home for school fees, or the farmer was sick or had a patient in hospital, the NIB would not advance any cash to the farmer to bail him/her out.

One farmer summarized what in his view was the relationship between the NIB staff and the farmers thus:-

“Every morning, they would take roll call like it is done in schools. If you are absent, for one day, you do not get the Kshs. 60/- advance at the end of the month .... We feared NIB staff the way standard one school children fear their teacher!”

The large number of farmers who stated that the relationship between farmers and the NIB can be viewed as an indication of large support for the boycott.

#### 4.2.11 SOURCE OF ASSISTANCE IN PRODUCTION MARKETING

The researcher sought to know the source of any assistance the farmers may have gotten during the processes of production and marketing of paddy in the last crop season (1999/2000). Production assistance comprised of rotavation, leveling, canal digging, weeding and harvesting. As had already been observed, a majority of the respondents (99.3%) reported that they got production assistance from MRGM. This has been happening since the 1999 crop by which time the farmers had boycotted any dealings with the NIB.

On the other hand, marketing comprised of milling, packaging and actual selling of the paddy. 98% of the respondents reported that they got marketing assistance from MRGM. We are therefore seeing a dependence by the majority of the farmers on MRGM for the production and marketing of their crop unlike in the past when they depended on the NIB. This is because of the large overhead costs in terms of machinery and other inputs that make production and marketing too expensive for the farmers to handle individually.

This scenario depicts a situation whereby the farmers break their total dependence on the NIB, and join hands through their co-operative, to produce and market their paddy, a feat they can not accomplish individually. At this point, a brief history of the MRGM is deemed important.

The MRGM was formed in 1964. At that time it was called the Mwea-Tebere Savings and Credit Co-operative society. Its aim at the time was to give farmers a chance to save and borrow so that they can hire labor for farm processes such as transplanting.

To be eligible, one had to be a rice farmer. In 1964, the scheme was small. With continued expansion, there was need for rice mills. The government, through the NIB and the farmers, through their co-operative decided to form a company, which will deal with milling rice. The farmers' co-operative was not allowed by its by-laws to venture into such a deal. Farmers were advised to form a sister co-operative.

In 1967, the Mwea farmers' co-operative society was formed. Through it the farmers contributed shares, which were channeled to the MRM (Mwea Rice Mills). By 1972, the NIB had 60% shares and the farmers 40%. Currently, the NIB has 55% shares and the farmers have 45% shares. The farmers were members in both co-operatives. As the activities of the co-operatives increased, there was need to separate the management of the co-operatives. This was done in 1981.

The role of the savings and credit co-operative was to receive savings in form of shares from the farmers and lend in the form of loans to the same. Farmers got emergency loans, school fees and development welfare loans. These were recovered from the farmers through deductions from their dues channeled from the NIB through the savings and credit co-operative. The Mwea Farmers' Co-operative was aimed at mobilizing savings from farmers to invest in the MRM. They also invested in rice by-products and transport.

In 1983, both societies came together to form the Mwea Amalgamated Rice growers Co-operative Society. In 1992 however, the society split into two: Mwea Rice Growers Multipurpose Co-operative Society and the Mwea Rice farmers Savings and Credit Society. The two are still in operation today.

### 4.3 PROBLEMS THAT BROUGHT ABOUT THE BOYCOTT

As explained earlier, it is a well-known fact that between December 1998 and March 1999 the farmers violently rejected the NIB and boycotted delivering their crop to the same. Below is a narration by one farmer of the events that culminated into the boycott.

“Farmers have been experiencing problems since the inception of the scheme. We were brought as detainees and put into villages. A roll call would be administered everyday. We would be given a meager salary. We were not allowed to keep any domestic animals without the permission of the general manager. The village plot was so small, that is 50 by 100 feet. This would accommodate a father, a mother and children below 18 years. Children over 18 years were not supposed to stay on at the scheme. It was an offence to be absent from the scheme for a period of six months without the express permission of the manager.

We started taking action in 1996. We started protesting about the price. At that time the NIB was paying us very little. The rate at which the price would be increased was also very low, for instance it was 50 cents per annum per kilo of paddy. This was too low. The farmers kept on grumbling till 1998. At this time the area Member of Parliament led the farmers in a protest. This was because the NIB was paying so little, that is, Kshs. 17/- and Kshs. 15/- for Basmati and Sindano varieties respectively. The farmers together with the MRGM management rejected this offer.

Instead, we wanted the NIB to pay us Kshs. 20/- and Kshs. 17/- for Basmati and Sindano varieties respectively. The protest began. The farmers said they had no faith in the NIB. The 1997/98 crop had been produced with help from the NIB. We had not been paid for the 1998/99 crop. We therefore decided that the 1998/99 crop will not be delivered to the NIB stores.

On 12th February 1999 the real fighting began. The NIB had been using the police to forcefully take the farmers' paddy since December 1998. The farmers had vowed that even though they would not sell their paddy to the NIB, they would still store it in the NIB stores since they had been paying for storage. The little paddy that had already been taken to the stores in Thiba was confiscated and some farmers arrested. Since we had refused to deliver our paddy to the NIB, they denied us access to stores. We made some make shift stores where we store our paddy till today. We also bought some single pass mills, which we use to mill our paddy. The MRGM currently pays us Kshs. 30/- and Kshs. 22/- per kilo of Basmati and Sindano respectively”.

As also mentioned by the above farmer, the commonest reason cited (by 49% of the respondents) as having caused the boycott was low paddy prices.

The farmers argued that the prices they were receiving were far below the market prices of milled rice. When approximated, a 90Kg bag of paddy produces a 50Kg bag of milled rice. If the farmer is paid Kshs. 17/- per kilo of paddy while the NIB sold milled rice at Kshs. 60/- per kilo the farmer would only get Kshs, 1,530/- per bag delivered (before deductions), while the NIB would make Kshs. 3,000/- per bag. After deductions, farmers would end up with even less. This apparent exploitation of farmers has contributed to the low incomes (36,000/- per annum) earned by farmers since rice growing is their main economic activity. This has in turn led to the high poverty levels whereby farmers find it difficult to afford such basics as food, clothing and healthcare.

Another reason widely quoted as having led to the boycott is the harsh rules that the NIB imposed on the farmers. 18.1% of the respondents cited these rules that are drawn from the Irrigation Act as having contributed to the boycott. These rules, as explained earlier in this chapter are dictatorial and gave the NIB management total control over most aspects of the farmers' lives. A farmer could not even go out of the scheme for over 6 months without the express permission of the scheme manager. We are therefore seeing a situation whereby even the farmers' freedom of movement was infringed upon.

Another important reason cited as having contributed to the boycott (by 7.4% respondents) is the fact that the NIB had set very high targets for the farmers to deliver. From a 4 acre holding a farmer was required to deliver a minimum of 120 bags of paddy. If a farmer does not meet this target, he/she will have to forego the 12 bags allocated for home consumption in order to top up his/her delivery. If after this he/she still does not meet the target he/she will not receive such services as rotavation in the next crop year. This caused a lot of misery and suffering in the scheme. For instance if a farmer has to top up his delivery to NIB using the paddy meant for home use, what he is left with to feed his family may not take him to the next harvest hence starvation. This therefore caused a lot of apprehension among the farmers and contributed to farmers boycotting delivering their paddy to the NIB.

#### **4.4 TARGETS SET BY FARMERS TO BE REALIZED THROUGH THE BOYCOTT.**

The researcher sought to know the targets that the farmers had set when they decided to boycott. The most commonly cited target was independence. More than half (54.7%) the respondents reported that their target was to be independent to run their own affairs. They wanted to be in charge of both production and marketing of their paddy. They wanted to do away with the NIB and its Irrigation Act. They believed that by taking charge of their own destiny, they would improve life at the MIS.

Another 26.6% of the respondents cited good prices of paddy as their target in boycotting. They wanted the prices paid to them revised upwards in order that they can earn higher incomes. These two, independence and good paddy prices were the reported by farmers to have been the main targets of the boycott.

## **4.5 ALTERNATIVE ARRANGMENTS MADE BY FARMERS AND THEIR RESULTS.**

As mentioned earlier, the farmers now produce and market their paddy through the MRGM. The researcher sought information on the consequences of this new arrangement.

### **4.5.1 Price**

The researcher sought to find out whether the price paid to farmers for their paddy had gone up. Almost all the respondents (98.6%) reported that the price paid to farmers had increased. It is therefore true that the price paid to farmers has increased. Facts on the ground indicated that for the 1998/99 crop, the MRGM paid farmers Kshs. 17/- and Kshs. 25/- per kilo for Sindano and Basmati varieties respectively. This was an improvement from the Kshs. 12.50 and Kshs. 17/- per Kg for the two varieties respectively, which was last offered by the NIB. Infact, for the 1999/2000 crop, the farmers had negotiated a further increase and were to receive Kshs. 20/- and Kshs. 30/- per Kilo for the two respective varieties.

Since most of the respondents solely rely on paddy production for their income, it can be argued that the farmers have seen an increase in income as a consequence of the boycott. As earlier stated, the mean monthly income of farmers had risen from Kshs. 3,000/- (when farmers were under NIB) to Kshs. 5,898/- (currently, when farmers are under MRGM). The mean monthly income has therefore almost doubled.

We can conclude that there is an improvement in the lives of the farmers as a result of the improved income. A number of farmers had even recently put up permanent houses, a feat, which was almost impossible before. Some farmers even reported that now their children are in school as opposed to before when they could not afford the school fees.

## 4.5.2 Inputs

The researcher sought to know if the farmers now receive larger quantities of inputs as compared to the time when they were under the NIB. Most of the respondents (77.9%) stated that this was true. The fertilizer given by the NIB was rationed. The farmers were given what the NIB deemed adequate for their holding. Currently a farmer is allowed to take as much fertilizer as they require since the cost will just be deducted from the final pay of the farmer.

Under the NIB, another issue of contention was the pricing of the inputs. The farmers were never informed about the price of the inputs. This gave the NIB an opportunity to over - price the inputs since the farmers did not know how much they were being deducted for inputs. It was also reported that the NIB staff in charge of spraying the pesticide used to dilute it with water and then sell the rest. Sometimes they would extort bribes from farmers before spraying the farmers' holdings.

All these, most farmers reported, are no more. They are informed of the prices of inputs in advance and are even given receipts. The pesticide, it was reported, is no longer diluted. These factors combined can be said to have contributed to an increase in production. It was established that production had increased from 400,000 bags of paddy (under NIB) to 680,000 bags of paddy (under MRGM) as reported by Dr. Kamau the MRGM scheme manager. However, I will be quick to add here that the increase in production could also be partly as a result of encroachment on the scheme by Jua Kali farmers. These are farmers who may not be official tenants of MIS but who, due to their proximity to the MIS, have appended their holdings and are now producing paddy. These farmers are now free to deliver their paddy to MRGM. This may have partly caused an increase in the paddy recorded as having been produced at the MIS.



### **4.5.3 Participation in decision making**

The researcher sought to find out whether farmers now participate in decision making. Almost all the farmers (96.6%) reported that it is true that farmers now participate in decision making. As reported earlier in this chapter, when the NIB managed the scheme, the farmers were not involved in the decision making process. Decisions were just communicated to them for implementation. A farmer, Mrs. Priscilla Wamboi, summarized life under NIB thus:-

“At the time when we were under the NIB, we were like the children of Israel in Egypt. We were working like slaves and no one ever listened to us. Now Mwea farmers have freedom. Before this freedom, there was slavery”.

Many farmers observed that the MRGM regularly calls meetings between the respondents and the farmers. At such meetings, the management floats the policies and projects it wants implemented to the farmers.

The farmers sometimes reject the proposals. This involvement of farmers has the strength of harnessing local leadership potential. It is important to note that the MRGM management mainly comprises of farmers and farmers' children. The farmers can therefore be said to have taken charge of their own destiny and will only implement policies that are for their own good. This may lead to better development of the area.

### **4.5.4 Sale of paddy**

When the MIS was under the NIB, sell of paddy was one of the most contentious issues. There was need, therefore, to establish if there have been any changes in the marketing of paddy. The researcher sought to know whether the single buyer policy previously embraced by the NIB was still in place. Most respondents (96.6%) reported that the single buyer policy was no longer in place. They observed that the farmers were free to sell their paddy to a buyer of their own choice.

Equally important is the fact that at present, the farmers themselves decide how much paddy to keep for home consumption. Since they received most of the services and inputs required for production from the MRGM, they are required to deliver just enough paddy to cover the costs of these services and inputs. Anything over and above this, the farmer decides whether to deliver to MRGM for marketing or to market it on his own. To some extent, therefore, the free market policy is in place at the MIS. This was not the case when the scheme was under the NIB.

It was also highly observable that many farmers would sit along the road with their milled rice waiting to sell it to anyone. The fact that the farmers now decide how much paddy to keep for home consumption has two main advantages. One is that the farmers can now retain enough paddy to feed their families unlike under the NIB where a farmer could only be allowed a maximum of 12 bags of paddy irrespective of the size of his family.

Secondly, the extra paddy retained at home, over and above what the farmer needs to feed his family can be sold off when the farmer needs some quick money, for instance in the case of sickness.

One can conclude, therefore, that the free market policy has led to an improvement in the lives of the Mwea people. They now have enough paddy to see them through the year and as they wait for the final pay out they can maintain some liquidity by selling some of the extra paddy retained at home.

#### **4.5.5 Cash advance**

As stated earlier, the farmers get one major payment for their paddy, commonly referred to as final pay out. Paddy is normally delivered between December and March. Under the NIB, the final pay out would be given around June each year. The researcher established that it now takes longer for the final pay out to be given to farmers. By the time this research was completed in September 2000, the farmers had still not been given their final pay out for that year.

Such a situation as described above means that the farmer would stay for a substantial part of the year without a flow of cash hence the need for cash advance. The researcher, therefore sought to find out the ease with which a farmer can get cash advance under the MRGM as compared as compared to how it was under the NIB. A majority of the respondents (66.7%) reported that it is now easy for farmers to get cash advance. These farmers observed that the NIB only gave cash advance for the hiring of extra help for various farm processes such as planting, weeding, and harvesting. They never gave cash for anything else. However, the MRGM gives cash advance for such things as school fees and medical bills. This can be said to have improved the general life of the farmers in that social amenities are now within their reach through cash advances.

#### **4.5.6 Accessibility of leaders**

The researcher sought to establish the accessibility of leaders both under the NIB and under the MRGM. Most of the respondents (95.3%) reported that the MRGM leaders are easily accessible as compared to the NIB leaders. This was also highly observable as each morning there would be a large queue of farmers waiting to see the scheme manager or any of the other leaders.

These farmers reported that the NIB managers were not easily accessible as a farmer had to go through several junior officers before finally reaching the manager. Some farmers stated that seeing an NIB manager was next to impossible due to the long chain of command.

The accessibility of leaders can be said to have reduced the level of hostility between the MRGM management and the farmers. Since the leaders are easily accessible and always available for the farmers, the farmers view them as “one of us”. This makes it easy for the two groups to work together since the farmers can always air their grievances to the management without any hindrance.

#### **4.5.7 Employment of farmers' children**

The researcher sought to find out the availability of employment opportunities for farmers' children at the MRGM as compared to the NIB. Most of the respondents (96%) reported that it is only the MRGM that has employed farmers' children. The NIB never employed locals as the employment was done by the central government. Staff would just be posted from other parts of the country but never would the locals be employed.

The MRGM being an organization of the farmers themselves has strived to reverse this trend. Most of the employees are farmers' children with the necessary skills. The most notable employee, who is also a farmer's child is Dr. Kamau, the scheme manager. He holds a PHD in Agronomy and previously lectured at Egerton University.

#### **4.5.8 Jua Kali farmers**

As stated earlier, these are not official tenants of the MIS. These are farmers who live on the periphery of the MIS, and since with the exit of the NIB there is no more strict maintenance of the scheme boundaries, have appended their holdings to the scheme and are also enjoying such facilities as water. When asked 97.3% of the respondents agreed that Jua Kali farmers have encroached on the scheme. An interviewed with the scheme manager (Dr. Kamau) revealed the same. He observed thus:-

“In 1998 the Mwea Irrigation scheme occupied only 15,000 acres. After 1998, the mushrooming of the Jua Kali farmers had created over 10,000 additional acres”.

Closely tied to the mushrooming of the Jua Kali farmers is the issue of water supply in the paddy fields. A majority of the respondents reported that there is poor water supply. This was however attributed to two factors.

The first was the long drought, which had been experienced for about two years. The second factor was the Jua Kali farmers whom not having been in the original plan of the scheme, their invasion in large numbers has contributed to scarcity of water in the paddy fields. The problems of the mushrooming of Jua Kali farmers and declining water supply need to be addressed as they may lead to a drop in production hence causing more suffering to the people of MIS.

The scheme manager, on the issue of Jua Kali farmers and water supply stated thus:-

“There wasn’t enough water for the 15,000 acres and yet now there is an additional 10,000 acres! The drought makes the situation worse. It has created a shortfall of 50% in water requirement. Managing water is almost impossible!”

#### **4.5.9 Struggle for leadership**

The researcher sought to find out whether there has been struggle for leadership at the MRGM. Opinions were divided over this issue with 48.3% of the respondents reporting that it is true, there has been struggle for leadership while another 51.7% respondents reported that there has been no struggle for leadership.

Since the MRGM took over the running of the MIS in 1999, there had already been a change of leadership. This was because the previous office bearers were accused of corruption and mismanagement of MRGM affairs.

Whether this was true or not, with its new roles of production and marketing of paddy the MRGM is likely to elicit more interest than before. There is now more money involved hence more people will be interested in its leadership. Mechanisms have, therefore to be put in place to ensure that those elected to the various leadership posts are not corrupt and that they do not put their interests before those of the whole MIS population.

Closely tied to the issue of leadership is the issue of control of farmers. It was observed that under the MRGM, there is little control of farmers. The farmers have freedom to do what they want most of the time. Asked to comment on this issue, 61.1% of the respondents reported that this less control of farmers might lead to the scheme's collapse.

Running an Irrigation scheme of the magnitude of the MIS requires certain laid down regulations that should be followed to the latter. Such things as maintenance of canals should be made mandatory as was under NIB.

But, it was reported that some farmers have started neglecting such responsibilities hence hindering the proper flow of water to paddy field. If this continues, the scheme may collapse. There is, therefore need for new rules and guidance to be followed because any such large society of people needs properly laid down rules that also state how deviants should be punished.

#### **4.5.10 Infrastructure**

The researcher sought to know whether the MRGM has the necessary infrastructure and manpower to run the scheme. This was especially so after it was established that when the MRGM took over the running of the scheme, the NIB withheld all the machinery previously used at the scheme. The MRGM therefore had to start buying from the very basic of machinery to the very complex.

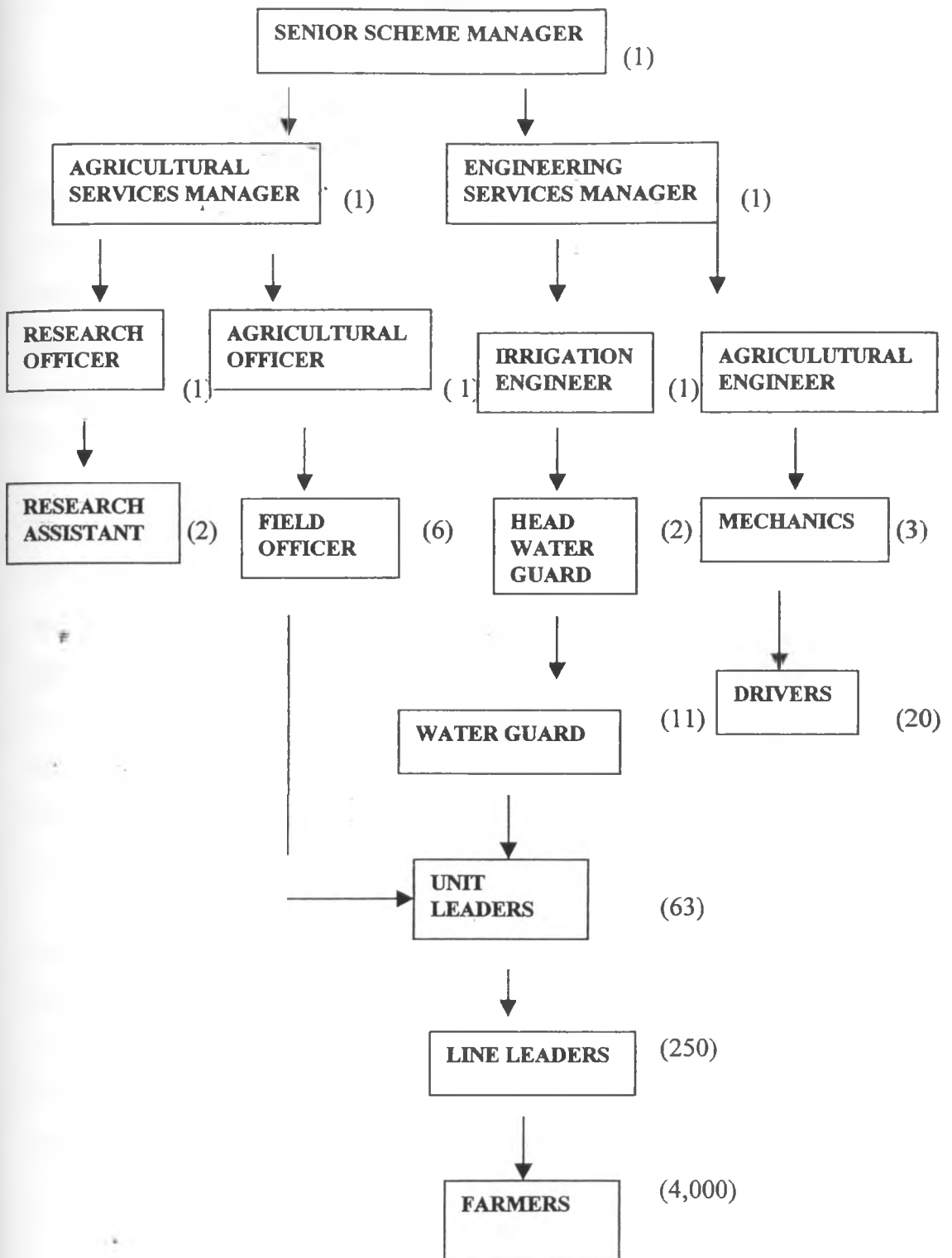
Many of the respondents (69.6%) reported that the MRGM did not have the necessary infrastructure to effectively run the scheme. Only 30.4% of the respondents reported that the MRGM had the necessary infrastructure needed for proper running of the scheme. Facts on the ground seem to confirm what the majority of the respondents reported, that machinery was a big problem for the MRGM.

The MRGM Scheme Manager reported thus:-

“The MRGM has tractors and a rotavator. The rotavator is the weakest part of the whole machinery system as it is very expensive to maintain. There is need for an agricultural engineer to come and do something about it. The rotavator is not designed for these conditions. It breaks down almost everyday. It costs too much money to maintain ..... There is also poor maintenance of the infrastructure such as canals, feeders and drains, water control gates and roads. There is need for heavy machinery such as the excavators and graders for road and canal maintenance. One can therefore observe that the MRGM needs help in terms of infrastructure and machinery. The lives of thousands of farmers and their families depend on the MRGM and as such, all should be done to ensure that the MRGM has the necessary machinery to run the scheme.

In terms of personnel, the MRGM has done its best in acquiring skilled manpower given their meager resources.

Below is the chain of command at the MRGM field management and the number of personnel at each level.





We can therefore conclude that the MRGM has tried to employ as much qualified personnel as they can afford to pay. There is however need for more researchers since research is an integral part of good farming.

#### 4.5.11 FUTURE MANAGEMENT OF MIS

The researcher sought to know who the respondents feel should be in charge of production and marketing at the MIS in future. On the issue of production, a majority of the respondents (85.2%) reported that the MRGM should be in charge. A further 7.8% reported that the government, through the Ministry of Agriculture should take charge of production. Only 2% of the respondents reported that the NIB should be in charge of production.

Therefore, it is clear that the farmers want the status quo retained - the MRGM to be in charge of production. This can be attributed to the fact that the MRGM does not subject the farmers to unnecessary taxes and levies and only makes deductions for services and inputs offered. The MRGM also pays the farmers better prices for the paddy and does not limit how much paddy the farmers can retain at home. The relationship between the farmers and the MRGM can also be said to be more cordial than that between the farmers and the NIB. No wonder only 2% of the respondents want the NIB to take charge of production.

On who should be in charge of marketing of paddy in future, a majority of respondents (90%) reported that the MRGM should be in charge. This was mainly because of the increased prices that the MRGM offers the farmers that have led to an improvement in the lives of the farmers. Only 2% of the respondents reported that the NIB should once more take charge of marketing of paddy.

One can therefore safely conclude that the farmers do not wish for the NIB to make a comeback but for the NIB to continue running their affairs. It is important for the government, and any other bodies, to give support to the MRGM so that the lives of the Mwea people can be improved.

The above section therefore summarized the major attributes and experiences of farmers. The farmers are seen to have had some deep-rooted problems that compelled them to violently reject the NIB. The MRGM, which took over from the NIB, has made some steps in the right directions but also has some serious shortcomings. Consequently, some recommendations will be made in the last chapter of the study, which can help solve the problems the farmers have been, and still are, experiencing.

## 4.6 QUALITATIVE DATA

The objective of this section is to present the key informant interviews on a case by case basis. Thereafter, an analysis will be done

### 4.6.1 Key Informant Interview 1

This respondent is a 70-year-old unit leader who has been on the scheme for 45 years. He is among the first batch of farmers who arrived at the scheme as political detainees before independence. He gave the following narration;

We were caught by the colonialists fighting for independence in 1954. We were moved to Langata transit camp, then to Manyani camp. While we were there we were screened and those of us whose problems were not known were called Grey. We were neither good nor bad. We were screened again and it was found that the Grey people could be taken to Mwea to grow rice.

The scheme was planned since 1948. It lacked workers. Detainees were brought in 1954 to work at the scheme as prisoners. We started digging water canals here at Mwea, 7 work camps were built. The other works camp was in Embu (Ishiara works camp). I was taken to Ishiara while others remained at Mwea. There we built another irrigation scheme from river Thusi. At the camp there was a probation service. Rehabilitation officers rehabilitated us through such things as sports. We were viewed as good people and repatriated to our home camps. I come from Kiambu so I was taken to Gatundu in February 1955. We started development there awaiting the last screening. Each of us was asked whether he or she had a shamba at home. Others had but some of us said we did not have. We were then told those without shambas will be taken to Mwea.

From the works camp we were taken to Kirigiti transit camp. We then left for the Thiba works camp on September 26, 1955. The officers told us that we were free and therefore we would be given fields. We also started building villages. After one year our families joined us from our home districts. I was a bachelor by then.

In late 1956 we were told the fields were ready and the first lot would be given out. I was a foreman, a committee member, and as such I would select people who work well and are a good example for issuance of paddy fields. In 1957 we started giving out paddy fields (2 acres per person). We only gave a few people because the fields were few; they were still being prepared. I did not get a shamba since I was the one selecting the people to be given. In 1958, I finally got a shamba hence I started farming. By then I was also an assistant chief.

We developed the scheme, built new villages and prepared new fields. We had two sections only; Tebere and Mwea. Then came Thiba, Wamumu and Karaba. The last were developed after independence (1964). In 1964 we tried to organize transportation of paddy. I was in the transport committee. We used to work with Asians and other people from other towns. In 1965, I was made transport manager. I had retired as Assistant Chief in 1962. In 1966, we thought of building a rice mill as farmers. We were helped by government officers to contribute 2 million shillings. We registered our society and started buying the machine. By 1967 the Mwea Rice Mills was functional.

### **Production of Paddy**

In the production process, we put in more than the National Irrigation Board. At first, we had bulls from ALDEV (African Lands Development Foundation), which were used for land preparation. When ALDEV left, the government thought we were not mature enough to handle our own affairs hence the inception of the NIB. Under the ALDEV management, we were allowed to pick the bulls we wanted to use for ploughing. We would weed ourselves; control the water ourselves (as the water-guards watched); harvest ourselves; be given sacks; pack the paddy and load it onto lorries. It would be weighed and then we would be given a cash advance of 10 shillings per sack of paddy delivered. By then the price of paddy was 20 cents per pound of paddy. After receiving the cash advance we would wait till May to receive the final pay out. We would plant in August hence harvest between December and March.

By then farming was not so efficient hence we would harvest between 20 and 30 bags of paddy per acre. With the introduction of fertilizer, the harvests went up to 35 to 40 bags per acre.

### **Problems experienced under NIB**

He outlined the following problems experienced by farmers under NIB;

We did most of the work ourselves, the NIB did very little and yet when we harvested our paddy they would give us very little for home consumption. They would dispatch policemen to the fields to make sure we do not take any unauthorized paddy home and yet when we were planting and weeding there was no police. They follow us up to kitchen and confiscate already cooked rice.

They would set targets for us to meet in terms of our delivery. If you did not meet these targets you do not receive cash advance.

We were like slaves. If you wanted money you had to bend low and yet they had your produce. We could not do anything without the permission of NIB. We could not even go out of the scheme without asking for permission from the NIB.

Owing to the above problems we could not take it any more. We were working for other people but not ourselves. We thought we must be independent. Liberalization had come but the NIB did not want it. Even when we called meetings the scheme manager never attended. The rules were also too harsh; you can not eat your rice without permission; you can not keep livestock and children over 18 have to leave the scheme. All the work we were doing was not ours, even the land was not ours, it belonged to the NIB. The NIB had been put in place to educate us but it became our landlord.

Farmers decided to emancipate themselves from the chains of the NIB and not the government. They have done that and will continue doing all that is necessary.

When we called the manager to discuss our problems, he refused to come and just ignored us. We decided to demonstrate and we said we have left NIB, we shall not give them paddy but shall sell it ourselves. At our meetings they attacked us with weapons and yet we were unarmed. They shot and killed two people and maimed six others. We said we should not turn back. We buried our dead and took the injured to hospital. We got help from good Samaritans such as Members of Parliament and the Disabled Department.

### **Outcome of the Boycott**

He listed the following outcomes of the boycott;

Farmers harvest their paddy and sell it without any prohibition. You sell to the cooperative the amount you choose and store the rest for domestic consumption. We now run our own affairs; we bought tractors; built stores; planted our crop; harvested it and sold it. We are now independent.

### **Recommendations**

He gave the following recommendations for the future management of the Mwea Scheme;

All construction was done with our money. The Government never gave any money. When we split with the NIB we wanted back our stores and the whole scheme. The scheme is ours. The NIB is just a group of experts who were brought to educate us. We therefore want our scheme back. We formed our society and contributed 2 million shillings to buy shares in MRM. The NIB had shares too but it was supposed to repay itself and then leave the MRM to the farmers. The NIB used the first profit and claimed that was its share. They should give us back our rice mills and our stores. These belong to the farmers.

## 4.6.2 Key Informant Interview 2

The respondent is a 45 year old Unit Leader who has been at the Mwea Scheme for 6 years. He is one of the young farmers who have shown to be responsible hence being appointed Unit Leader. He made the following observations;

When I started staying at Mwea life was very difficult. At planting, the NIB would send the advance to the MRGM to be given to farmers. For 4 acres a farmer would get 4000 shillings. At weeding, the advance given to each farmer would be 1600 shillings. After a while the NIB would spray the crops. At harvest time they would give farmers 10000 shillings in advance for harvesting. However at this time they would deploy policemen all over the paddy fields to arrest any farmer who attempts to take any paddy home without written permission. The paddy for home consumption was only 12 bags. If you are caught with any extra it is confiscated and you are accused of theft.

When you would deliver less paddy than what is expected of you, you would be told there is no money for you since you did not meet the target set for you. When you would go to the NIB to ask for a little more paddy for home consumption you would simply be told that it is not there. Sometimes the NIB expelled people from the scheme for no reason- maybe the manager just hates you. Then those fields would be sold to other people.

When farmers would ask for an increase in paddy prices, the NIB would refuse and should they add even one shilling per kilo they would also hike the price of the services and inputs they offered. That way the farmers never felt the impact of the occasional price increase.

In 1998, farmers decided not to deliver paddy to the NIB because the NIB was disrespecting and mistreating farmers. The farmers started delivering paddy to the MRGM. There was a confrontation. The NIB deployed policemen to harass farmers but this did not work.

The farmers called the manager to a meeting but he refused hence they realized that they did not have anyone to listen to them. They therefore started delivering their paddy to their own society-the MRGM.

## Consequences of the Boycott

He outlined the following outcomes of the boycott;

- There is no policing at harvest.
- When we deliver our paddy we are given enough to eat.
- We are given school fees and medical fees advance if we require.
- Services and inputs are given properly. Even the jua kali farmers are now getting services.
- Parting ways with the NIB is beneficial to everyone. Even Ugandans and Tanzanians can now come here and buy rice. We are also free to sell to the best buyer.

## Recommendations

He gave out the following recommendations for the future management of the Mwea Scheme;

We need excavators for clearing the canals. This will aid the flow of water into the paddy fields.

There is also need for clean, piped water and electricity to be supplied to the villages.

There is need for a government hospital at Mwea. Presently farmers are forced to go to private hospitals that are expensive.

We should be given title deeds for these fields. This will enable someone to stay knowing that the fields are theirs. A title deed can also be taken to the bank to secure a loan. This would help us venture into other income generating activities.

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### 4.6.3 Key Informant Interview 3

The respondent is a 65 year old Unit Leader who has been on Mwea Scheme for 38 years. He is one of the farmers settled on the scheme as political detainees. He made the following remarks;

Rice growing started in 1955. Since 1958, even before I started growing paddy I was working with AEDDEV as a surveyor. When the survey work got finished some of us were laid off and promised paddy fields. At that time we refused because there was too much work and little pay. However, in 1962 I came back as a tenant.

We had many problems. We would be paid 20 cents per pound of paddy. We had house loans and as such we would get nil final pay out because of the loan deductions. The best of farmers would get final pay out of about 1000 shillings. We were therefore paid very little for our paddy.

In 1968 we started our society (MRGM). Members paid 50, 100 or 200 shillings. In the 70s we started getting loans for school fees and medical fees from our society. We would also get loans to buy property such as land.

#### **Problems that caused the Boycott**

He listed the following problems as causes of the boycott;

1. The paddy we were left with for home consumption was not enough. Since we did not plant maize or beans we were forced to sell some of the paddy in order to buy maize and beans.
2. The prices of paddy were low so the farmers had no money for school fees, medicines and clothes.
3. The relationship between the NIB staff and the farmers was very strained. We were like slaves and they were the masters. They did not care about us. They treated us like animals.
4. There were so many arrests in cases such as one delayed in completion of land preparation. If you are arrested you would be jailed for 6 months in which case your paddy fields would be confiscated.
5. There were too many taxes and levies. This left the farmers with very little to take home at the end of every crop year.

We now have our own infrastructure such as tractors, paddy stores and mills. We now employ our own children to work at the MRGM and not strangers, as was the case at the NIB.

### Recommendations

He gave the following recommendations for the future management of the Mwea Scheme;

We were promised title deeds. We do not know what happened. We would like to be given title deeds so that we can feel like the other farmers. This can also enable us to secure loans. Our problem revolves around money. If paddy is bought at a good price and we are set free to sell our paddy, even abroad if we choose to, then everything will be okay. We would like to be free like the coffee and tea farmers.

#### 4.6.4 Key Informant Interview 4

This respondent is a 56 year old Unit Leader. He has been at the Mwea Scheme for 35 years. He is in the group of farmers who re-settled on the scheme shortly after independence because the creation of white highlands rendered them landless. He made the following observations;

When I came to Mwea in 1965, we were under the NIB. We used to get a 25 by 13 brick house from the NIB on loan. We would also get a hoe, a mattock, and a wheelbarrow, all on loan from the NIB. We could not leave the scheme without permission from the NIB.

In 1965 and 1966, the NIB used to give us 60 shillings every month as advance. During the same period, they would administer a roll call just like it is done in schools. If you are absent even for one day you do not get the 60 shillings advance at the end of that month. We were not allowed to keep any domestic animals, not even chicken, without the approval of the scheme manager.

We were required to prepare a 15 by 20 nursery seedbed. Failure to do this within the stipulated time and to the required standard would earn you a written warning plus you would forego your 60 shillings advance. We feared NIB staff the way school children fear their teacher. Rotavation would start in March. If your paddy fields were not ready by then, they would be skipped and done later. This would result in you being charged double. We were required to plant and weed within the stipulated time.

Failure to do so would result in you being evicted. During eviction, you, your family and all your belongings would be put in a vehicle, driven very far from the scheme and dumped there.

During harvesting, we would be provided with sacks, needles and thread. We would be charged for these too, though like in all other cases the price is not disclosed to us in advance-we just see deductions on our final pay out. After we had delivered the paddy we could not go back to the NIB to buy the milled rice. We would deliver the paddy to the reception centers. If you do not deliver the required amount of paddy, you would receive a warning letter. You will also not receive the 10 shillings per bag of paddy delivered advance paid upon delivery. After delivery, you would be given the total weight of your paddy and told to wait for the final pay out, which would be less the cost of all the inputs provided, by the NIB. If you are accused of a crime and jailed for over six months, you would automatically lose your tenancy.

Rotavation meant carrying four heavy ladders on which the tractor would pass. The people carrying these ladders would leave with shoulder injuries. We would be paid 22 cents per pound of paddy. If you net 3000 shillings you would be considered very rich.

We used to harvest between January and February. The Sindano variety, which was the only one grown at the time, takes long to mature. The then Manager was Mr. Veen and the Accountant was Mr. Calvert. We would wait for the final pay out till March. Around 1968, the best farmers would receive some privileges such as pure seeds and extra paddy fields. The pure seeds were of very high quality. These privileges would however be withdrawn any time. Some people would bribe to get these privileges. Title deeds were promised but none was issued. 99year leases were issued to a few farmers but later withdrawn.

### **Problems that caused the Boycott**

He outlined the following problems as causes of the boycott;

1. The services provided were poor. We had to wait for water and fertilizer for too long.
2. There was no association between the NIB staff and the farmers. The farmers really feared the NIB staff and could not ask even an important question.
3. Targets were set for farmers to deliver failure to which one would be denied advance payment and would not be able to pay for hired labor. Even if a farmer was ill, he had to meet the target or forego the advance payment.
4. The NIB did not give farmers any financial assistance even for such things as school fees and medical fees. It was therefore very hard for farmers to pay secondary school fees for their children.
5. The NIB rules were very dictatorial. We were not allowed to keep even the bulls we needed for land preparation. One had to get a permit from the manager stating how long those bulls were going to stay on the scheme.
6. Final pay out used to be delayed. Paddy would be delivered in January but farmers would have to wait sometimes till October for the final pay out.
7. Seeing the scheme manager was almost impossible. However big a problem you had the NIB staff would block you from seeing the manager. You would sometimes be allowed to see the Irrigation Officer and hope that he discusses your problem with the Manager.

8. Farmers were not informed on the day to day running of the scheme-they were ignorant. They were not even informed on things like the price of inputs and yet they would be too scared to ask. The farmers were also not consulted before decisions were made.
9. A farmer would not be carried by a NIB vehicle even if he were dying. Yet the same vehicles would carry the NIB staff's families. Farmers were treated like lesser human beings.
10. Fertilizer would be brought till Tebere reception center. The farmers would then be summoned to find their own way of transporting it to their villages and yet the NIB had vehicles.
11. During harvesting, a farmer was not allowed to carry home even one grain of rice before he delivers the entire paddy to the NIB and gets a permit. One would be allowed to take home a number of bags relative to his delivery. Those who did not meet their targets would end up with even one bag for consumption till the next harvest.

The maximum number allowed was 12 bags. One had to bribe the police (who would be deployed in the paddy fields during harvesting) to the tune of 100 shillings per bag to take home any extra paddy. If you were discovered, they would search your house and confiscate any extra.

The farmers were experiencing all these problems and yet they were scared of the NIB. Our current Member of Parliament, Mr. Alfred Nderitu, enlightened farmers and told them they did not have to abide by the NIB rules. The MRGM informed us that we would do what we want with our paddy and whatever we deliver to them will be bought at 30 shillings per kilo for the Basmati variety. We were now free with our paddy, we were no longer being dictated to.

### **Outcome of the boycott**

He outlined the following positive and negative outcomes of the boycott;

#### **Negative outcomes of the Boycott**

1. Earlier on, we used to be told that the scheme was for tenants only and not for Jua Kali farmers. The scheme was then 15,000 hectares. Now, the Jua kali farmers have added some extra 12,000 hectares. Because of the encroachment of the Jua Kali farmers and the prevailing drought, the available water is not enough. It is also important to note that the Jua Kali farmers do not pay for the water and their use of water is not controlled, as is the case with the tenant farmers.

2. Many people now want leadership positions even if they are not experts. There is so much politicking in the MRGM and if this continues, it may lead to the society's downfall. For instance, the MRGM committee members have distributed their pictures to farmers and even plastered them all over so that the farmers can vote for them. Some of the committee members, especially in Karaba section, have even been buying votes.
3. Unit leaders are diverting water from the main canal to certain farmers' paddy fields. When you report this matter, no step is taken.
4. The farmers were not paid any advance for harvesting and even today they are still waiting for their final pay out.
5. We thought we were going to depend on ourselves through the MRGM. However, given the freedom that farmers now have, some of them deliver very little or no paddy at all to the MRGM. This is surely going to lead to the downfall of the scheme.
6. The destruction of canals has led to poor water management. Main canals are now being used to divert water to certain units and even outside the scheme in the name of independence. Young people mainly do this.
7. When you come to pick some rice for home consumption, you might be told that you have exhausted your delivery hence wait to plant the next crop.

#### **Positive outcomes of the Boycott**

We are free with our crop. We do whatever we like with it.  
The price we are now paid is good.

#### **Recommendations**

He offered the following recommendations for the future management of the Mwea Scheme;

1. Seminars should be organized to educate the farmers on the operations of the MRGM.
2. We need a new set of rules that should be enforced to the latter.
3. The MRGM staff should be vetted to establish if they are all trustworthy. This is in view of the fact that there was a theft of rice at Mwariko stores in 2000. It is too early for thefts to be occurring.
4. MRGM should employ only qualified staff. Employment should not be pegged on whether someone is from Mwea or not.
5. Employees should be devoted to their work.

Today, things are somewhat better than they were when we were under the NIB. There are still some doubts as to whether the MRGM will succeed or not.

#### 4.6.5 Key Informant Interview 5

This respondent is a Unit Leader aged 48 years. He has been on the scheme for 39 years. He came to the scheme as a young boy and upon the demise of his father took control of the holdings. He made the following observations;

The NIB used to provide farmers with services and inputs. At first they would use bulls for ploughing. Two farmers would team up and pick at most four bulls for ploughing. After ploughing the bulls would be taken back to the boma where they were kept. After some time, the NIB bought tractors. Rotavation would be done between March and August. However, sometime it would delay till end of December.

The NIB would make too many deductions. The farmers were never informed about the prices of inputs such as seeds and fertilizer. They would only be aware of these come the day of the final pay out. In 1996, the farmers decided that they must be told the price of everything in advance.

That if a farmer receives any input or service, then he must be issued with a receipt indicating the price.

The NIB did not like this demand. In 1998, the farmers demanded an increase in price from 17 and 12.50 shillings to 25 and 17 shillings for Basmati and Sindano varieties respectively. The NIB refused completely. They wanted to pay farmers 18 and 12.50 shillings for the two respective varieties. They even stated that they would buy paddy from the farmers whether the farmers liked it or not. That is when the farmers decided not to have anything to do with the NIB. We formed a committee, which found out that the farmers could sell paddy at 25 and 18 shillings for Basmati and Sindano varieties respectively.

This price was good. However, the NIB withheld the MRM and stated that anyone who wants to mill rice should take it to MRM. They threatened to evict those who disobeyed this directive. On hearing this, the farmers, together with their Member of Parliament convened a meeting. It was agreed that the fields belonged to the farmers and as such no one could evict them. The rest of Kenyans own land backed by title deeds. The land at Mwea, therefore, belongs to the Mwea farmers and no one could evict them from the only home they know.

It was arranged that all farmers would deliver their paddy to the MRGM makeshift stores at Mwariko. The MRGM took over and started storing paddy. Only about 200 farmers took their paddy to the NIB. Farmers decided to contribute and buy tractors. 20 tractors were bought which are still in use today.

The biggest problem we are facing right now is that there is no research department. The NIB had given some seeds to farmers. These are what we have been using all this time. We need a research department to produce high quality seeds whose yield is also high.

The MRGM bought local mills that are not graded to mill rice. The rice was sold and the farmers paid their dues. In 1998, we tried getting the MRM back but it was a big problem. The farmers decided to buy their own mill. It is still being installed and will be ready in September. The cooperative is providing everything needed in the fields such as land preparation and fertilizers. It also provides cash advance for medical bills and school fees.

The MRGM organizes for rotavation between March and July. However, there was a delay this year due to scarcity of water. Production of paddy is going on fine. The NIB gave seeds in August to be planted in September while the MRGM gives seeds in July to be planted in August. The MRGM is more efficient than the NIB. Farmers have built two big stores for the storage of paddy. The MRGM has employed educated people to run the scheme.

Prior to 1996, farmers thought they did not have any problems since they were ignorant. However, they used to be paid very little for their produce. There are no stations to take your children. You are given 4 acres to grow paddy and a small place (60 feet by 100 feet) to build. A farmer could have even 10 children hence there is a lot of congestion. There are no hospitals in the area. Prior to 1973, they used to dispense drugs in every village for children and they would also spray to kill mosquitoes. However all these stopped in 1974. Road maintenance also stopped despite the fact that the NIB continued deducting from farmers levies for road maintenance. The NIB general manager in Nairobi had no contact with the farmers. The farmers never even knew him or the scheme manager. The NIB management would take even two years before calling a meeting with the farmers. The farmers do not have title deeds. However, this land belongs to farmers since they are Kenyans.

### **Benefits of the boycott**

He pointed out the following as the benefits of the boycott;

1. If you want to talk to anyone, even the general manager, he is available to you.
2. The farmers now have the power to harvest their paddy and take it anywhere without being asked any questions. In the past, police would be deployed to ensure all harvested paddy rice is delivered to the NIB stores.
3. The price of paddy rice has gone up tremendously.



4. Paddy milled by the cooperative is now available to the farmers. In the past, farmers could not even buy or see milled rice from the NIB.
5. Farmers' children are now getting employment at the MRGM. The farmers are running their own affairs. The NIB staff was never local people, they were all foreigners.
6. All the money gotten from the sale of rice is ploughed back into the scheme unlike before when it would be taken away and eaten outside the scheme.
7. The farmers are now independent. They do not rely on outside help.

In my opinion, the MRGM and the experts it has employed such as the scheme manager should keep running the scheme. More experts will be employed when the scheme expands. There is a problem with the water canals because the NIB took back the excavators. The farmers are now excavating sand from the canals manually. The NIB should give back those excavators.

#### 4.6.6 Key Informant 6

This respondent was the MRGM Scheme Manager. He holds a Ph.D. in Agriculture. He made the following observation;

The NIB has nothing to do with the production of paddy. MRGM is totally managing the production of paddy. They give advances in form of services such as:

1. Rotavation or land preparation
2. Fertilizers and other chemicals
3. Cash advance for planting, transplanting and harvesting.
4. Transportation of paddy to stores
5. Milling
6. Marketing.

Two major varieties of rice are grown at the MIS. The aromatic varieties( basmati/ pishori) and the non-aromatic varieties( sindano). The average yield per acre for basmati is 35 bags while the average yield per acre for sindano is 50 bags. During the last crop season (1998/99), total production was 680,000 bags of paddy rice. Of these, the MRGM only received 220,000 bags. The farmers retained the rest in their houses for their local market. During the 1996/97 crop season when the scheme was under the NIB total [production was 400,000 bags. There has been an increase in production since the MRGM took over.

#### Management of the scheme

As I mentioned earlier, the scheme is wholly managed by the MRGM without any assistance from any circles. A technical team has been employed by the MRGM to manage the scheme. The final pay out for the farmers has been delayed and is proving difficult for the MRGM. This is because the marketing rate was rather slow at first due to the negative publicity from the NIB circles. The flooding of the market with lower quality rice has also cost the farmers a lot of money.

The milling is a problem because the MRGM uses single pass mills that do not have the grading machines. MRM are still being held by the government despite the fact that they are lying idle. The MRGM has purchased a new machine from China that is being installed and will be operational within one month.

## **Water management.**

Initially, the MIS occupied only 15,00 acres. After 1998 the mushrooming of the Jua Kali sector has created over 10,000 acres. There was not enough water for 15,000 acres and yet there is an additional 10,000 acres. The drought makes the situation worse. It created a shortfall of 50% in water requirement. Managing water is almost impossible. There is also poor maintenance of the infrastructure such as water canals, feeders, drains and water control gates.

## **Machinery**

There is need for heavy machinery such as excavators for canal maintenance and graders for road maintenance. The road and canal length of the scheme is too huge. The MRGM has tractors and a rotavator. The rotavation is the weakest part of the whole machinery system. It is very expensive. There is need for an agricultural engineer to come and do something. The rotavator is not designed for this type of conditions. It breaks down almost every day and costs too much money to maintain.

## **4.7 A Sociological Analysis of the Key Informant Interviews**

The above case studies serve to reinforce the findings presented in chapter 4. Low paddy prices was mentioned severally as one of the main problems affecting the farmers in the days of the NIB. The low prices could be attributed to the single-buyer policy that did not allow farmers to freely sell their paddy to the buyer offering the highest price. The farmers did not participate in marketing at all and were just required to deliver paddy to the NIB and wait for their final pay out. Attempts by farmers to negotiate for higher prices were thwarted by the NIB management who instead dictated the prices. Here we see a failure by a state run monopsony to take into account the needs of the farmers. Bates (1981) makes a similar observation. He observed that the agricultural policies of the nations of Africa confer benefits on highly concentrated and organized groupings.

They spread costs over the masses of the un-organized. Among those excluded from the immediate rewards of the new political order are the mass of the farmers. For the benefit of others they are subjected to policies that violate their interests. But the effects of these policies are increasingly harmful to everyone.

Bates (1981) also makes the observation that the dominant group may be persuaded to forsake the pursuit of unilateral short-run advantage, and instead to employ strategies that evoke co-operation by sharing joint gains. The failure by the NIB to increase the paddy prices can be construed to mean a desire to maximize profits. In the words of Bates (1981) they ought to have foregone this desire by increasing the paddy prices as a way of sharing gains with the farmers. This may have helped avert the boycott.

The high targets set by the NIB for the farmers to deliver was also a major concern for these farmers. It was clearly expressed that a farmer would be denied services and cash advance because they did not meet the target required of them. Another issue expressed by the farmers interviewed in this section was that the farmers were allowed too little paddy for home consumption. As noted earlier, each farmer was allowed a maximum of 12 bags of paddy for home consumption. Those who did not meet their targets would take home even less. Since most farmers rely only on paddy production, it means that they would have very little food to see them through the year. These issues can be closely tied to the land tenure system. Because the Government owns the land and the NIB is an agent of the Government, it controlled the farmers' produce. The farmers did not feel as though they were working for themselves and their families but for the NIB.

The above issues tie closely to the sociological concept of alienation. Ritzer (1992) outlined the four major components of alienation all of which relate to the Mwea boycott. First, he observed that the workers in a capitalist society are alienated from their productive activity. In such a society, they do not work for themselves in order to satisfy their own needs. Instead they work for the capitalists.

Because productive activity belongs to the capitalists, and because they decide what is to be done with it, we can say that workers are alienated from that activity. I would like to recall here that at the Mwea, the NIB strictly controlled the farmer's labor and decided what is to be done and when, hence the farmers were alienated from the entire production process.

Secondly, workers are alienated not only from the productive activities but also from the object of these activities- the product (Ritzer, 1992). The product of their labor does not belong to the workers, to be used by them in order to satisfy basic needs. Instead the product, like the process then resulted in its production, belongs to the capitalist, who may use it in any way they wish. This was the obvious case at the Mwea where once the farmers harvested paddy, they were required to deliver it to the NIB and they would only be allocated 12 bags for home consumption. The rest of the paddy was for the NIB to dispose off as it pleases.

The third component of alienation is that the workers in capitalism are alienated from their fellow workers (Ritzer, 1992). People need and want to work co-operatively in order to appropriate from nature what they require to survive. But in capitalism this natural co-operation is disrupted, and people, often strangers, are forced to work side by side for the capitalist. Ritzer (1992) refers to this situation as isolation and states that the social situation is worse than isolation: the workers are often forced into outright competition, and sometimes conflict, with one another. In order to extract maximum productivity and to prevent the development of co-operative relationships, the capitalist pits one worker against another to see who can produce more work, work more quickly, or please the boss. The ones who succeed are given a few extra rewards; those who fail are discarded. The above scenario was prevalent at the Mwea where the farmers who produced the most paddy would receive extra fields or be appointed unit leaders. Those whose production fell below par would, in some cases, face eviction.

The last component of alienation is that workers in a capitalist society are alienated from their own human potential. Individuals perform less and less like human beings as they are reduced in their work to animals, beasts of burden, or inhuman machines (Ritzer, 1992). This was evidently the case at the Mwea where the farmers had to toil year after year in order to produce paddy for the NIB.

The farmers interviewed in this section also complained of very poor treatment of farmers. This can be attributed to the very harsh rules spelt out on the Irrigation Act, which the farmers had to abide by. These rules also gave the manager almost total control over the farmers hence he could treat them the way he wants. The Irrigation Act is responsible for the top-down administrative policy employed by the NIB.

The NIB can be viewed as a bureaucratic organization. According to Weber (1978), the ideal type of bureaucratic organization involves three principle features. First, there is a formally delimited hierarchy with the duties of distinct offices being specified by written rules. Second, there is staffing by means of full-time salaried officials. Third, there is selection and allocation of officials by impersonal criteria and on the basis of qualifications. The NIB has a clearly laid down chain of command, from the General Manager to the line leader. The officials are full time and are employed based on qualifications. The NIB therefore approaches Weber's criteria for an ideal bureaucracy.

According to Weber, experience tends to universally show that the purely bureaucratic type of administrative organization is, from a technical point of view, capable of attaining the highest degree of efficiency and is in this sense formally the most rational known means of exercising authority over human beings. It is superior to any other form in precision, in stability, in the stringency of its discipline, and in its reliability (Weber, 1978). Whereas this may be so, other scholars have noted the downside of an ideal type of bureaucratic organization. Cassell (1993) observed that the technical effectiveness of bureaucracy exacts a heavy social price.

That it is the source of the alienated character of bureaucratic tasks. It has also been observed that the more an organization approaches the ideal type, the more power becomes centralized in the hands of those at the apex of the organization. The Mwea case can be viewed as case of a failed bureaucracy as the alienation of the farmers led to discontent and subsequently the boycott.

The Mwea case can also be looked at as a case of a weak state versus a strong society as expounded by Migdal, (1987). He argues that many developing countries possess weak states (i.e. states that are incapable of translating resources into development) but strong societies, with the latter assuming responsibility for social control and development initiatives. It is the inability of the state to translate the resources at the Mwea into development that can benefit the farmers, and the presence of a strong farmers' society that may have led to the boycott by the farmers and the taking over production and marketing by the MRGM.

Many scholars view African states as still capable of facilitating development if they are efficient and responsive to their citizens (Bratton and Rothchild, 1992). Further, World Bank (1989) suggests that Africa needs not just less government but better government that concentrates its efforts less on direct interventions and more on enabling others to be productive.

In conclusion, it can be observed that the Mwea case is one of the state failing to manage agricultural projects. That failure can be said to have been brought about by the state's use of an ideal type bureaucracy (NIB) to run the scheme. This led to the alienation of the farmers hence their discontent. However, the myriad of problems already afflicting the MRGM as exposed in chapter 4 clearly indicate that for the survival of the scheme, both the farmers and the Government have to work hand in hand. This could be done by the government involving the farmers in the running of the scheme and sharing the profits with the farmers (Bates 1981).

This study, therefore, concurs with Mbatia(1996) who suggested that a better way of African states ensuring good governance is to create a favorable environment for the emergence and sustenance of a strong civil society. This entails the allocation of more development space by African states to non-state actors who should be considered as state partners in development. As Migdal et.al.(1994) put it, states and other social forces may be mutually empowering.

In summary, I have presented the research findings by use of descriptive statistics. The findings on key issues such as land tenure system, NIB marketing policy and involvement of farmers in decision making are presented. In addition, I have presented the key informant interviews and given an analysis. This chapter is therefore a summary of all the data collected from the field.



## CHAPTER FIVE

### 5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The objective of this chapter is to give a summary of the entire work and thereafter give recommendations. The chapter is organized in various sub-sections namely:-

The study design, summary of the findings, conclusions and recommendations.

### 5.1 THE STUDY DESIGN

The research sought to develop an inventory of the existing problems at the MIS that contributed to the farmers' violent severing of their links with the NIB. Special interest was placed on the part played by the single buyer policy and the top-down administrative policies that were adopted by the NIB and how these may have contributed to the boycott by the Mwea farmers. Special emphasis was also placed on the role of insecurity of tenure as a possible cause of the boycott. Insecurity of tenure was discussed in detail because it was believed to be one of the most contentious issues between the MIS farmers and the NIB. A lot of room was left for the researcher to capture all the other possible causes of hostility between the MIS farmers and the NIB management.

The research fitted within the theoretical framework of collective behavior and social movements. This theoretical framework seeks to explain what happens when usual conventions cease to guide social action and as such people collectively do what is contrary to what has been established as the norm. In order to get a deeper picture of the problems at Mwea, the theoretical framework of Peasant Revolution was also adopted. Peasants are viewed as rural cultivators whose surpluses are transferred to a dominant group of rulers and that some person or group of persons sometimes claim right to the land used by the peasantry.

This theory further holds that it is in view of the above exploitation that peasants revolt, the uprising being merely occasional open manifestations of the latent opposition that divides the peasant from those who siphon off his surplus funds (Wolf, 1966).

The hypothesis developed predicted that the single-buyer policy and the top-bottom administrative policy, both of which were adopted by the NIB, and the insecurity of tenure all contributed to the unrest at the MIS. It is important to note that these were not thought to be the only factors that may have contributed to the unrest hence the fourth objective of the study was to find out any other factors that may have contributed to unrest at the MIS.

Data were collected using two main methods. First, the survey method was used to collect data from 150 respondents from two sections (Mwea and Tebere ) of the MIS. This method made use of the interview schedule as the main tool of data gathering. Secondly, in depth interviews were used to gather information from NIB staff while key informant interviews were used to gather information from farmers' leaders. Observation was also used as a method of data gathering to reinforce the above methods. Once collected, the data were analyzed using descriptive statistics and some data were presented as key informant interviews analyzed sociologically.

## 5.2 SUMMARY OF THE FINDINGS

A majority of the farmers were in their 40s and 50s and had acquired primary level of education. Among the respondents, there were more males than females as most holdings are registered in the name of the male heads of household. Most of the respondents were married. Many of the respondents had acquired their holdings at MIS through allocation by the NIB. These are mainly people who were land-less before and were nominated by their clans (Mihiriga) for the allocation.

Almost 90% of the respondents reported that they rely solely on paddy production for their income. Only 10% of the respondents reported that they engage in other income generating activities such as horticulture and business. The mean annual income under NIB was found to be 17,067 shillings. This is close to what Tanaka(1991) and Njoka (1995) had computed in their respective studies. This income is what the farmers refer to as final pay out and is paid to the farmers once a year. It therefore translated to 1,422 shillings per month.

This, as stated earlier could not meet the needs of an average family of 9 persons.

The average annual income under the MRGM was found to be 36,948 shillings, which translates to a mean monthly income of Ksh. 3,079. It was observed that the farmers' income has greatly improved under the MRGM. This could be attributed to better prices paid to the farmers by the MRGM and the decrease in the taxes and levies charged on the farmers' income.

The system of land tenure in operation at the MIS was established to be leasehold. Upon arrival at the MIS a farmer would be issued with a one-year lease, which is automatically renewed year after year subject to what the NIB viewed as satisfactory performance by the individual farmer. The scheme manager could revoke the lease at any time. Almost all the farmers (98%) reported that the lease hold land tenure system is inappropriate and they would prefer a free hold tenure system backed by a title deed. A majority of the respondents gave security of tenure as the reason for their preference of a freehold land tenure system. Insecurity of tenure can therefore be said to be a major concern to the farmers( Ruigu, 1990).

Almost all the respondents (98.7%) reported that the NIB employed the single buyer marketing policy. All the paddy harvested was delivered to the NIB for processing and subsequent marketing as spelt out in paragraph 4(2) of the Irrigation ACT. The farmers were only allowed a maximum of 12 bags of paddy for domestic consumption.

A majority of the respondents (90%) observed that this marketing policy was very inappropriate. The main reason cited by 30.2% of the respondents for the inappropriateness of the marketing policy was that the NIB paid the farmers very low prices. The farmers were not allowed to sell their paddy to whoever offered the highest price as should be the case in a liberalized economy. The farmers can therefore be said to have been alienated from the product of their labor. These low prices were observed to have contributed to the high poverty levels in the area.

An overwhelming majority of the respondents reported that the NIB made all decisions and the farmers were not involved at all in decision making. Most of the respondents expressed the view that they were very dissatisfied with the level of farmers' involvement in decision making. It can therefore be argued that the NIB employed the top-down administrative policy, which, as observed earlier, may have denied farmers a chance to participate in decision-making. This observation was also made by Ruigu et al (1984) in their social economic survey of the Bura Irrigation Settlement Project. They observed that the effect of centralization in decision-making was evident in dealing with some of the tenant problems. Precious time is wasted in seeking headquarter approval.

A majority of the farmers reported that the relationship between the NIB staff and the farmers was very strained. Three reasons were cited by a large number of the respondents as responsible for the strained relationship. First was the issue of non-involvement of farmers in decision making which created a situation where the farmer's voices were never heard. The second reason cited was the fact that the NIB employed very harsh rules. These rules are spelt out in the Irrigation Act and give the NIB manager near total control over the farmer. Thirdly and closely tied to the issue of harsh rules was the statement that the NIB staff treated the farmers inhumanly. A widely quoted example of this inhuman treatment was the fact that NIB vehicles would not carry a farmer even if he were dying and needed to be rushed to hospital. The farmers therefore viewed the NIB staff as capitalists out to exploit them.

Having established that the farmers had broken links with the NIB, it was important to establish the sources of assistance for the farmers in the processes of production and marketing. Almost all the respondents (99.3%) reported that during the 1999/2000-crop year, they received production assistance from the MRCM. Almost the same number stated that they received marketing assistance from the MRGM. The MRGM can therefore be said to have replaced the NIB in terms of provision of service to the farmers. Since the MRGM is a formation of the farmers themselves, they feel they have achieved independence.

Nearly half (49%) of the respondents cited low paddy prices as the main reason why they boycotted. They argued that the prices paid to them by the NIB were far below the market price for rice. Furthermore, the NIB made too many deductions. This left the farmers with very little in terms of income hence the very high poverty levels in the area. The harsh rules imposed by the NIB were also quoted by 18.1% as the main reason for boycotting. These rules are spelt out in the Irrigation Act and they give the NIB manager total control over the farmers. Both Alila(1987) and Ruigu(1990) made a similar observation- that these rules provide for an extremely authoritative system which gives the manager total control over the tenants and their families. The third reason cited by 7.4% of the respondents was the fact that the NIB had set high targets for farmers to meet in terms of paddy delivery. If a farmer did not meet his target he would have to forego some of his 12 bags for home consumption to top up his delivery. The farmer would also not be paid the cash advance payable upon delivery of paddy and he may also not get services such as rotavation from the NIB for the next crop season. These three factors were cited by the farmers as the main causes of boycott.

More than half the respondents (54.7%) cited desire for independence as their main target for boycotting. These farmers boycotted with the hope of attaining independence from the NIB at the end of it all. With independence, the farmers hoped they would address some of the problems they had been facing.

Another 26.6% of the respondents cited good paddy prices as their main target in boycotting. Higher paddy prices would mean higher incomes for farmers hence alleviation of the widespread poverty in the area.

The respondents were also asked to assess the various outcomes of the boycott. Almost all the respondents (98.6%) reported that the price paid to farmers for their paddy had gone up. Figures computed indicated that the farmers' mean monthly income had risen from Kshs. 3,000 to Kshs. 5,898. Many a farmer stated that there was an improvement in their lives as a result of this improved income.

More than half the respondents (77.9%) indicated that that they now receive as much inputs as they desire and that it is not rationed like it was when they were under the NIB. The farmers reported that they are now informed of the prices of inputs and even issued with receipts. The MRGM cannot therefore overprice the inputs as the farmers are well aware of the market price of these inputs.

Almost all the farmers reported that they now participate in decision making. They stated that the MRGM regularly calls meetings with farmers to seek the farmers' opinions before implementing policies. The farmers therefore feel that they have taken charge of their own destiny.

On the sale of paddy, 96.6% of the respondents reported that the single buyer policy, previously embraced by the NIB was no longer in place. They are only required to deliver to the MRGM enough paddy to cover for the services and inputs received. They also decide how much to keep for home consumption. The flexibility in sale of paddy ensures that the farmers maintain some liquidity by selling the extra paddy retained at home as they wait for the final pay out for whatever they delivered to the MRGM. This could be said to have improved the farmers' lives.

More than half the farmers reported that it was easier to get cash advance from the MRGM as compared to the NIB. They also reported that the cash advance is not only given for farm processes like planting, weeding, and harvesting, but also for such things as school fees and medical fees. This can be said to have improved the farmers' lives as these are things they could not afford earlier (Njoka, 1995).

Most of the respondents (95.3%) reported that the MRGM leaders were more accessible as compared to the NIB leaders. This can be said to have reduced the level of hostility between leaders and the farmers. A similar number of respondents also observed that the MRGM employs farmers' children, something that the NIB never did. This also makes the farmers feel like part of the leadership hence reducing the level of hostility.

Many farmers stated that Jua Kali farmers have encroached on the scheme. These farmers may have contributed to the water shortage in the paddy fields. However, other farmers also reported that the water shortage could be as a result of the prolonged drought experienced in the area for two years prior to this research. Since rice farming relies entirely on good water supply, the issue of water shortage needs to be addressed if the MRGM is to succeed in running the MIS. The MRGM scheme manager attributed the water shortage mainly to the growth of the Jua Kali farmers who have strained the water needs of the scheme.

On whether there is struggle for leadership, opinions were divided. Nearly half the respondents stated that there is struggle for leadership while the other half responded to the contrary. Since the MRGM management committee is made up of farmers, many a farmer are now striving to be in the committee. There have also been allegations of corruption leveled against some committee members. This, for an organization on which more than 3000 farmers and their families depend for their livelihoods, is not a good sign. Closely tied to this is the fact that the MRGM does not exercise strict control over the farmers. More than half the respondents (61.1%) reported that this might lead to the scheme's collapse.

As Veen (1973) observed any community dependent on a centrally coordinated production system demands and requires a certain disciplinary system in order to survive.

More than half the respondents (69.9%) observed that the MRGM did not have the necessary infrastructure and manpower to run the scheme. It was observed that the MRGM does not have a mill with a grader and has to rely on single pass mills that do not grade the rice. As such, the rice does not fetch a good price. Needed too is a rotavator as the one currently in use breaks down too frequently and is too costly to maintain. On manpower, there is need for more highly skilled employees such as researchers who at the moment are very few. This needs to be urgently addressed since running a large-scale irrigation project requires mechanization and qualified personnel in order for one to realize profits.

On the future of the MIS, most of the farmers felt that the status quo be retained. They preferred that the MRGM be in charge of both production and marketing of paddy. A further 7.8% reported that the government through the Ministry of Agriculture should take charge of production. Only 2% of the respondents stated that the NIB should take charge of production and marketing. One could therefore conclude that the farmers do not wish for the NIB to make a comeback but for the MRGM to continue running their affairs.

### **5.3 Conclusions.**

The researcher, on the strength of the above findings concludes that the MIS farmers have been experiencing problems since the inception of the scheme. At that time they had no room for complaint since they were detainees. Even after independence, things did not change for the MIS farmers. The rules governing the scheme remained more or less the same and the farmers had to obey them or risk eviction. The wave of democracy that swept through the country in the early nineties may have helped in awakening the farmers.



Among the problems cited as having contributed to the boycott was low paddy prices. The farmers felt that the prices they were paid for their paddy was too low compared to the market price of rice. This can be seen as a function of the marketing policy employed by the NIB. The farmers were obligated to deliver their paddy only to the NIB even if another buyer offered a better price. The other commonly cited reason for the boycott was the harsh rules that the farmers had to obey. Here, the issue of land ownership can be cited-since the farmers did not own the land they had to obey the rules as spelt out by the Irrigation Act or face eviction. Finally, the farmers were discontented with the high targets set by the NIB for them to deliver. These targets were set without consulting the farmer as a result of the top-down administrative policy employed by the NIB.

As their main targets in the boycott, the farmers cited independence and good paddy prices. The boycott as explained in previous chapters can be said to have had both positive and negative consequences. The farmers also expressed the desire for the maintenance of the status quo-that MRGM should be in charge of both production and marketing of paddy.

From the above observations, it can be said that there had been a missing link between the farmers and the NIB. The NIB, in strictly adhering to the Irrigation Act, failed to recognize the problems that the farmers were experiencing till the farmers had to resort to violence. In pulling out the NIB has left the farmers to fend for themselves or perish (Chambers, 1983). Fortunately, the farmers have their co-operative( MRGM), which is currently running the scheme although it is already facing a number of problems as explained in chapter 4..

There has therefore been reluctance by the Government of Kenya to better the lives of the Mwea rice farmers (NIB is a government parastatal). As the study findings indicate, the Mwea farmers would welcome a freehold land tenure system backed by title deeds. This would give the farmers freedom to choose whether they want to farm rice or any other crop.

The title deed can also be used as security if a farmer wants to borrow money from the bank. The government has not been willing to grant these title deeds. This can be partly attributed to the fact that it would lose a large revenue base in doing so (Bates, 1981). The fact that the farmers, through the MRGM, have been able to continue producing paddy since the NIB pulled out shows just how determined they are to take charge of their own affairs. Apart from the lack of market for paddy, inadequate infrastructure and the struggle for leadership, the continued survival of the MIS shows the farmers' determination to succeed.

The research also shows that the farmers were not involved in the day to day running of the MIS. This may be the reason why they are currently experiencing problems ranging from machinery breakdown to lack of market for their rice.

This non-involvement of farmers in the running of the MIS was also made worse by the non-employment of local people at the NIB. The local people were only farmers and a few held such peripheral posts as unit leaders. Despite attempts to employ some experts, the MRGM does not have resources to employ enough experts hence the local people have to do the work themselves. The lack of integration of the locals in the NIB can be said to have contributed to the bumpy start that the MRGM is experiencing. It can therefore be concluded that the farmers severed links with the NIB at such a time when they were ill equipped to run the scheme. They therefore need assistance to run the scheme profitably.

#### **5.4 Recommendations**

Based on the findings and implications of the study, the researcher recommends several suggestions for the Mwea Irrigation Scheme, which may help overcome the problems previously, and currently being experienced.

1. Since the main objective of the farmers' boycott was to be independent, the government could facilitate this by not necessarily pulling out of MIS with their entire manpower and machinery as it seems to have done. but by granting the farmers more say in the day to day running of the scheme and playing more of an advisory role. As Njoka (1995) observed, the NIB and local authorities administering the area ought to have given the tenant farmers a free hand in steering their own destiny. I would hasten here to add that an interview with Mr. Shagava, the NIB scheme manager at the time of the boycott, revealed that there had been a proposal for the NIB to cease running the scheme and just provide specific services. However this was never implemented. As such, the NIB pulled out abruptly when the farmers boycotted. This left the farmers somewhat ill-prepared to run the scheme. This may be the reason for the myriad of problems already being experienced at the scheme. Some farmers expressed the view that their own government has forsaken them.
2. One of the main problems facing the MRGM is the lack of a market for rice. Whereas the supermarket shelves are lined with rows and rows of imported rice. It is important to note here that some of the imported rice is of low quality as compared to the aromatic Basmati variety that is grown at the MIS. The government can help here by imposing strict regulations as regards to the importation of rice. In fact, for as long as the rice produced locally is enough to feed the Kenyan population, importation of rice should not be allowed.
3. Another issue that needs to be addressed at the MIS is the ownership of the MRM (Mwea Rice Mills). As mentioned earlier, the MRM is a joint venture between the NIB and the farmers. The NIB is the majority shareholder owning 55% stake while the farmers, through the MRGM, own 45% stake. Since the boycott, the farmers have not been able to mill their paddy at the MRM as the NIB denied them access. The farmers have had to use small single pass mills that do not have graders. If the rice is not graded into broken and unbroken rice, it cannot fetch a good price.

4. By the time of completion of this fieldwork the MRGM was still installing a bigger mill that would have a grader. However there was no telling when this would be complete. The ownership dispute of the MRM should therefore be resolved so that if possible the farmers can resume using the MRM to mill their rice. This would ensure that the Mwea rice is of high quality and can compete effectively in the obviously crowded market. The state can assist here by helping resolve the MRM ownership dispute.
  
5. Many of the Mwea farmers would also like to get title deeds for their holdings. The government should facilitate this so that these farmers, most of who were rendered land less during colonial times, can have a place to call their own. Mr. Shagava, a former NIB scheme manager stated in an interview that there was a proposal to issue farmers with title deeds which was never implemented. Several scholars have made this suggestion before. Njoka (1995) noted that the NIB should explore the possibility of giving the tenant farmers a permanent lease of the rice fields. Ruigu (1990) cited examples in Sri Lanka and India that showed that it is possible to have successful irrigation farming under freehold tenure systems. The Kenya Human Rights Commission (2000) observed that Mwea farmers should be allowed to manage rice production in holdings and should be issued with title deeds. The government therefore needs to look into the issue of issuance of title deeds as a matter of priority.
  
6. The water problem also needs to be addressed. The MRGM should set out and follow strict guidelines on water management. The number of Jua kali farmers appending their holdings onto the MIS should also be regulated and the number should be limited in accordance with available water. There is also need for proper maintenance of water feeders and canals- a lot of negligence was noted in this area. All these point towards the issue of enforcing the MRGM by-laws. Despite the MRGM having its own by-laws that are supposed to govern the conduct of farmers, these by-laws are not being strictly enforced. This needs to be addressed by the MRGM if it is to succeed.

As Veen (1973) put it, any community dependent on a centrally coordinated production system demands and requires a certain disciplinary system in order to survive.

7. The survival of the MIS to large extent lies on the farmers themselves. It is up to the farmers themselves to elect leaders who are not corrupt and power hungry. The farmers have also to cooperate in communal activities such as canal maintenance. They also have to conserve water so that it can be enough for all farmers (some farmers were reported to be diverting water to their holdings only while some were not maintaining canals to acceptable standards). The farmers now have to learn to work with minimum supervision and acquire a sense of responsibility and self-discipline for their own survival. The government can also assist here by educating the farmers and their leaders on how to run the scheme. This can be done through seminars and workshops.

In conclusion, this chapter summarises the entire work and thereafter gives some recommendations. It therefore enables one to have a quick grasp of the entire work and more specifically the study design, the findings, the conclusions and the recommendations.

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## APPENDIX 1

### QUESTIONNAIRE FOR TENANT FARMERS

How are you today? My name is Veronica from the University of Nairobi, Department of Sociology. I am carrying out a research on the production and marketing of rice at the Mwea Irrigation Scheme. I am interviewing tenant farmers from whom you have been randomly selected. The information you give is representative of other tenant farmers and may be used by policy makers to effect changes on the scheme. All information will be treated as confidential.

#### SECTION 1: BACKGROUND

(1) What is your name?

---

(2) Sex

- 1) Male
- 2) Female

(3) How old are you? \_\_\_\_\_

(4) What is your highest level of education?

- |            |                          |
|------------|--------------------------|
| 1) None    | 4) Secondary (Form 4)    |
| 2) Primary | 5) College               |
| 3) Std. 8  | 6) Other (Specify) _____ |

(5) What is your marital status?

- |            |                        |
|------------|------------------------|
| 1) Single  | 3) Divorce / Separated |
| 2) Married | 4) Widowed             |

(6) a. Do you have children?

1. Yes
2. No

b. If yes, state the number in the following categories

1. Below school going age (6 years) \_\_\_\_\_
2. School going age and in school \_\_\_\_\_
3. School going age and out of school \_\_\_\_\_
4. Completed school and in college \_\_\_\_\_
5. Completed school and out of college \_\_\_\_\_
6. Completed school / college and working \_\_\_\_\_
7. Completed school / college and not working \_\_\_\_\_

c. If any are in categories 3,5 and 7 above, please state the reasons

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

(7) What is your religion? -

- 1) Christian (Specify) \_\_\_\_\_
- 2) Muslim \_\_\_\_\_
- 3) Traditional \_\_\_\_\_
- 4) Other (specify) \_\_\_\_\_

## SECTION 2: PRODUCTION AND MARKETING OF RICE

(8) How did you acquire the plot on which you live in and work?

1. Allocated by NIB \_\_\_\_\_ year
2. Inherited \_\_\_\_\_ year
3. Other (specify) \_\_\_\_\_ year

(9) a. Explain the system of land tenure under which you operate?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. Do you think this the most appropriate land tenure system in your case?

- 1) Yes
- 2) No

c. If no, state the most appropriate land tenure system in your case and give reasons

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(10) Explain how you make use of your plots? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

(11) a. What has been the NIB marketing policy?

1. Single-buyer policy (the NIB itself)
2. Free market policy
3. Other (specify) \_\_\_\_\_

b. How would rate the appropriateness of the marketing policy?

- |                     |                       |
|---------------------|-----------------------|
| 1) Very appropriate | 3) Inappropriate      |
| 2) Appropriate      | 4) Very inappropriate |

c. Explain your answer? \_\_\_\_\_  
\_\_\_\_\_

(12) a. Explain how have decisions been made by the NIB?

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b. How frequently have the farmers involved in making decisions on the following issues?

- (1) Very frequently      (2) Frequently      (3) Not frequently      (4) Rare

<b>Decision</b>	<b>Frequency</b>
1. Electing leaders	1 2 3 4
2. Deciding when to plant, weed, harvest e.t.c	1 2 3 4
3. Deciding how much of inputs (e.g fertilizers) is needed	1 2 3 4
4. Deciding the price of these inputs	1 2 3 4
5. Deciding who to sell their paddy to	1 2 3 4
6. Deciding how much to sell it at	1 2 3 4
7. Deciding how much of it to keep for consumption	1 2 3 4
8. Deciding what deductions to be made from their pay	1 2 3 4

c. In general how satisfied have you been with the level of farmers' involvement in decision-making.

- |                    |                       |
|--------------------|-----------------------|
| (1) Very satisfied | (3) Dissatisfied      |
| (2) Satisfied      | (4) Very dissatisfied |





**b. Marketing**

- 1.
- 2.
- 3.
- 4.
- 5.

**SECTION 3: FARMERS' EXPERIENCES IN PRODUCTION AND MARKETING OF PADDY**

16) Narrate experiences in the production and marketing of paddy (highlight problematic issues if any). \_\_\_\_\_

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17) a. I understand farmers have boycotted delivering their paddy to the NIB, is this correct?

- 1) Yes
- 2) No

b. If yes, what problems brought about the boycott?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

c. What happened when the farmers boycotted delivering their paddy to the NIB?

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18) What targets did the farmers set?

1.

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2.

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3.

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4.

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5.

19) What role was played by the following actors in facilitating the farmers' boycott?

**Actor**

**Role**

1. Farmers

2. Political leaders (e.g. M.P)

3. Local administration (P.C., D.C., D.O., Chiefs)

4. N.I.B

5. Police

20) How do you rate the following statements related to the farmers' boycott?  
 (1) Strongly agree      (2) agree      (3) disagree      (4) Strongly disagree

- |  |   |   |   |   |
|--|---|---|---|---|
| 1. All farmers supported the boycott                             | 1 | 2 | 3 | 4 |
| 2. Majority of the farmers supported the boycott                 | 1 | 2 | 3 | 4 |
| 3. A few farmers did not support the boycott                     | 1 | 2 | 3 | 4 |
| 4. Most farmers understood the rationale for the boycott         | 1 | 2 | 3 | 4 |
| 5. Some farmers did not understand the rationale for the boycott | 1 | 2 | 3 | 4 |
| 6. Local politicians helped mobilize farmers                     | 1 | 2 | 3 | 4 |
| 7. The MRGM helped mobilize farmers                              | 1 | 2 | 3 | 4 |
| 8. The farmers against the boycott worked for the NIB            | 1 | 2 | 3 | 4 |
| 9. The farmers against the boycott had been paid by the NIB      | 1 | 2 | 3 | 4 |

**SECTION 4 : CONSEQUENCES AND RECOMMENDATIONS**

(21) How do you make the following statements related to the outcomes of the farmers' boycott (1). Very true      (2). True      (3). Untrue      (4). Very untrue

- |  |   |   |   |   |
|--|---|---|---|---|
| 1. The price paid to farmers has increased   | 1 | 2 | 3 | 4 |
| 2. Farmers get larger quantities of inputs   | 1 | 2 | 3 | 4 |
| 3. Farmers participate in decision making  | 1 | 2 | 3 | 4 |
| 4. Farmers decide who to sell their paddy to   | 1 | 2 | 3 | 4 |
| 5. Farmers decide how much paddy to keep for consumption   | 1 | 2 | 3 | 4 |
| 6. Farmers can get cash advances easily.   | 1 | 2 | 3 | 4 |
| 7. Farmers can get some paddy back even after delivery   | 1 | 2 | 3 | 4 |
| 8. Farmers can easily access their leaders   | 1 | 2 | 3 | 4 |
| 9. Farmers' children are now employed by MRGM  | 1 | 2 | 3 | 4 |
| 10. Jua kali farmers have encroached on the scheme   | 1 | 2 | 3 | 4 |
| 11. There is poor water supply   | 1 | 2 | 3 | 4 |
| 12. Farmers now struggle for leadership  | 1 | 2 | 3 | 4 |
| 13. Less control of farmers might lead to the schemes' collapse                                      | 1 | 2 | 3 | 4 |
| 14. The society doesn't have the necessary infrastructure and manpower to run the scheme effectively | 1 | 2 | 3 | 4 |
| 15. The farmers are still not paid on time   | 1 | 2 | 3 | 4 |

22) What lessons have farmers learnt from the boycott?

1.

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2.

---

3.

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4.

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5.

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23) Given the farmers' experience in the boycott, what suggestions can you make on how the production and marketing of paddy should be re-organized?

a. Production \_\_\_\_\_

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b. Marketing \_\_\_\_\_

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24) What role should the following actors play?

Actor

Role

1. Farmers

2. MRGM

3. NIB

4. Government

25) Is there anything you would like to add?

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**Thank you for your time!**

## APPENDIX II

**The Irrigation Act**  
**CAP 347** Laws of Kenya  
*Subsidiary Legislation*

### **Designated Areas under section 14**

#### **NATIONAL IRRIGATION SCHEMES**

- (a) The area known as Perkerra Irrigation Area in the Baringo District of the Rift Valley Province, the boundaries of which area are set out in the Schedule to a setting apart notice published as Gazette No. 4643 of 1959;
- (b) The area known as the Mwea / Tebere Irrigation Area in the Kirinyaga District of the Central Province, the boundaries of which area are set out in Schedule to setting apart notices published as Gazette Notices Nos. 3090, 3093, 3095, 3096, 3097, 3098, 3100, 3101, 3102, 3103 of 1960
- (c) The area known as Galole Special Settlement Area in the Tana River District of the Coast Province, the boundaries of which area are delineated in Legal Notice No. 274 of 1963; and
- (d) The area known as Ahero National Irrigation Pilot Scheme in the Kisumu District of the Nyanza Province, the boundaries of which area are set out in the Schedule to a setting apart notice published as Gazette Notice No. 2163 of 1968

### **Regulations under section 27**

#### **THE IRRIGATION (NATIONAL IRRIGATION SCHEMES REGULATIONS)**

1. These Regulations may be cited as the Irrigation (National Irrigation Schemes) Regulations, and shall apply to such areas of land as the Minister may, by notice in the Gazette, designate to be national irrigation schemes.

2. In these Regulations, unless the context otherwise requires:

“court” means the court having jurisdiction in the scheme;

“scheme” means any area designated to be a national irrigation scheme under section 14 of the act.

“authorized dependent” means, in relations to a license, his father and mother, wives and such of his children as are unmarried and under the age of eighteen year.

“committee” means an irrigation committee appointed under regulation 3;

“holding” means that part of an area specified in a license;

“licence” means a licence granted under regulation 4;

“licensee” means any person to whom a license has been granted, and includes any person who succeeds a licence under regulation 7;

“manager” means such person as may from time to time be appointed by the Minister to be in – charge of a national irrigation scheme.

3. (1) The Minister may appoint a committee for any scheme, such committee to be know as an irrigation committee, to be responsible for advising the manager on the general administration of the scheme in accordance with Government Policy.

(2) The committee may either be the District Agricultural Committee of the District in which the scheme is situated or may be composed of such members as the Minister may appoint.

4. Any person who resides in, carries on business in, or occupies any part of the scheme or grazes any stock thereon shall, unless he is the holder of a valid license granted to him under these Regulations by the manager with the approve of the committee or is the authorized dependant of such licensee, be guilty of an offence.

5. (1) Every licence shall be in the form in the First Schedule, and shall be prepared in duplicate; the original shall be given to the licensee and the duplicate shall be retained by the manager.
- (2) The manager shall maintain a register in which he shall enter the name of every licensee, the number of his holding and the names of his authorized dependants.
- (3) The manager shall also maintain a separate register in which he shall enter the name of any successor nominated by the licensee under regulation 7, together with the number of the holding in respect of which the successor has been nominated.
6. Before issuing a licence, the manager shall:
- (a) Cause these Regulations to be read and explained to the licensee in a language which he understands;
  - (b) Give the licensee a copy of these Regulations; and
  - (c) Obtain from the licensee, in the form in the Second Schedule, a receipt for the Regulations, an acknowledgement that he understands them and an undertaking to observe them.
7. (1) A licensee may, at any time after the date of being granted a license, nominate, in writing to the manager, another person to succeed him as licensee, in the event of death; and a licensee may at any time, in writing to the manager, revoke or alter the nomination which may have been made by him.
- Provided that no person nominated as a successor may succeed until he attained the apparent age of eighteen years; if he has not reached the age, his guardian under customary law may, within one month of the licensee



- (2) No person nominated as successor may succeed without the approval of the committee.
- (3) The authorized dependant of a deceased licensee may, within thirty days of his death, appeal to the court against the nomination under paragraph (1), of a successor.
- (4) The authorized dependant may;
  - (a) Where a licensee dies without having nominated a successor in accordance with paragraph (1); or
  - (b) Where, under paragraph (3), an appeal to the court against the nomination of a successor has been successful, within one month of the death of the licensee or one month after the determination of the appeal, as the case may be, nominate, in writing to the manager, a successor who must be approved by the court.
- (5) In the event of:
  - (a) No person being appointed within the time prescribed in the proviso to paragraph (1); or
  - (b) No person being nominated within the time prescribed in paragraph (4); or
  - (c) Any person nominated or appointed under this regulation failing to accept such nomination or appointment or failing to assume the responsibilities inherent in such nomination or appointment within a period of three months from the death of the licensee; or
  - (d) No successor being acceptable to the committee, the holding shall be deemed to have been vacated, the license in respect of such holding shall terminate, and a fresh licence may be granted in accordance with regulations 5 and 6.

(6) In the event of a holding deemed to have been vacated in terms of paragraph (5):

(a) The manager may make provision for the cultivation of any such holding and where appropriate recover the costs from the incoming licensee; and

(b) In accordance with regulation 23 reasonable compensation may be paid to the authorized dependant of a licensee in respect of any improvement to the holding, effected by the licensee.

8. (1) Every license be granted subject to the following conditions:

(a) A licensee shall devote his full personal time and attention to the cultivation and improvement of his holding and shall not, without the permission, in writing of the manager allow any other person to occupy his holding or to cultivate it on his behalf;

(b) A licensee shall maintain the boundaries of his holding in a manner satisfactory to the manager;

(c) A licensee shall maintain at all times his holding and all field, feeder and drainage channels to the satisfaction of the manager;

(d) A licensee shall maintain to the satisfaction of the manager all irrigation channels and works on or serving his holding;

(e) A licensee shall cultivate his holding to the satisfaction of, and in accordance with the crop rotation laid down by the manager, and shall comply with all instructions given by the manager relating to the cultivation and irrigation of his holding

(f) A licensee shall comply with all instructions given by the manager with regard to good husbandry, the branding, dipping, inoculating, herding, grazing or watering of stock, the production and use of manure and compost, the preservation of the fertility of the soil, the prevention of soil erosion, the planting, felling, stumping, and clearing of trees and vegetation and the production of silage and hay;

(g) A licensee shall not hire, cause to be hired or employ stock or machinery for cultural operations, other than stock and machinery owned by the manager, without prior approval, in writing from the manager;

(h) A licensee shall not absent himself from the scheme for longer than one month without prior approval, in writing, of the manager.

(2) Any licensee who fails to comply with the conditions specified in paragraph (1) shall be guilty of an offence.

(3) Any licensee who refuses, or without reasonable excuse fails to comply with any of the conditions of this regulation shall in addition to any penalty that may be imposed under paragraph (2), be liable to have his licence terminated by the minister, on the recommendation of the manager (after confirmation by the committee) and the minister's decision shall be final.

9. (1) A licensee shall pay to the manager, on demand such rates in respect of water and other services in respect of his holding as shall be calculated in accordance with rates prescribed by the Minister from time to time.

(2) The whole or part of any rates prescribed under paragraph (1) may be varied or remitted by the Minister either generally or in any particular case, in his absolute discretion.

10. (1) The manager may allocate to a licensee a house to be occupied by him within the scheme, or may permit a licensee to erect his own house.

- (2) In either event it shall be the duty of the licensee to maintain his house and precincts to the satisfaction of the manager, and if the manager is dissatisfied with the condition of the house or precincts he may give written notice to the licensee to the repairs which he considers necessary and specify a reasonable time within which they must be completed.
  - (3) If the licensee fails to complete such repairs within the time specified and to the satisfaction of the manager, the manager may cause such repairs to be carried out and may recover the cost thereof from the licensee.
  - (4) The licensee may not occupy any house other than that allocated to hi without prior permission, in writing, from the manager.
  - (5) A licensee shall no construct buildings or other works of any kind on his holding or elsewhere in the scheme without the prior consent, in writing, of the manager and in the event of his having erected structure or building without such consent, the manager may direct, in writing, that the structure be removed and the land returned to its original state and if licensee fails to comply with the direction within one month, the manager may enter the building or structure for the purpose of demolition and any expenses incurred by the manager for the removal of the building or structure may be recovered by the licensee.
11. (1) If a licensee is sentenced to imprisonment for a term of six months or more, his licence may be terminated forthwith
- (2) If a licensee is terminated under paragraph (1), a successor may be nominated or appointed in accordance with regulation 7.

12. The manager shall have power to order the destruction of any crops planted in contravention of his instructions or of the provisions of these Regulations and to recover the expenses incurred from the licensee and no compensation shall be payable in respect of crops so destroyed.
13. If, in the opinion of the manager, it would be beneficial to licensee's crops or to all the licensees in the scheme to cultivate by machinery, or to apply fertilizers or manure, or to treat any crops or stocks in any way to protect them against diseases, pests, or damage of any kind, then the manager may do so and recover the costs thereof from the licensee or licensees.
14. (1) As soon as each crop other than paddy has been harvested the licensee shall deliver it, other than such portion as he may wish to retain for his own consumption and that of his authorized dependants living with him, to the manager at a collecting station to be appointed by the manager, or shall otherwise dispose of it in accordance with the instructions of the manager.  
(2) The licensee shall deliver all paddy harvested to the manager at the collection station appointed by the manager, or shall otherwise dispose of it in accordance with the instructions of the manager.  
(3) The licensee may purchase such quantities of milled rice from the manager for his own consumption and that of his authorized dependants living with him, as the manager may from time to time authorize.  
(4) Any licensee who fails to comply with the provisions of paragraph (1) or (2) shall be guilty of an offence.

15. (1) The manager may, when necessary, collect, process and market the crops delivered to him under regulation 14 and may arrange for the sale of such crops, in which event he shall give the licensee details of the sales of all such crops as soon as possible.
- (2) The manager shall not be obliged to keep or sell the crops of individual licensees separately.
16. (1) A licensee shall not keep on his holding any stock other than those specified in his licence and shall declare to the manager annually the natural increase in such stock and shall comply with any instructions issued by the manager as to their disposal.
- (2) A licensee who fails to comply with the provision of paragraph (1), or with any instructions issued by the manager there under, shall be guilty of an offence and where any additional undeclared stock is found in the possession of a licensee within the scheme, the manager may order a licensee to remove such additional stock from the scheme forthwith.
- (3) If a licensee fails to remove his additional stock in accordance with an order to that effect given by the manager under paragraph (2), the manager may confiscate and sell such additional stock, paying the proceeds thereof, less any expense incurred by such confiscation and sale, to the licensee.
17. (1) If in the opinion of the manager, a licensee has been negligent in the use of his land, the use of irrigation water or the cultivation of his crops, the manager may direct him to take such steps as the manager may specify to remedy the effects of such negligence, and, in the event of a licensee failing to comply with any such directions, the manager may take such measures as he considers necessary to safeguard the crop and to preserve the holding and irrigation water and may record the costs of any such measures from the licensee.

- (2) If the licensee is absent owing to illness or any other reasons, the manager may take such measures as he considers necessary to safeguard the crop and to preserve the holding and irrigation water, and may recover the costs of any measures from the licensee.
18. A licensee shall permit any of his stock to be upon any part of the scheme which is closed to stock or to damage to any crops or water installations or communications or other property, and shall be liable to pay the cost of the repair of any damage so caused.
19. (1) Any licensee who wilfully or negligently caused to be damaged any road, bridge, or culvert within the scheme shall be guilty of an offence.
- (2) The manager may, where such damage has been caused by a licensee, repair any such damage and shall recover the cost of the repairs to such damage from the licensee.
20. The manager may, deduct from the proceeds of the sale, under regulations 15 and 16, of any crops or stock belonging to a licensee:
- (a) The costs of expenses incurred by the manager.
- (i) in the making of provisions for the cultivation of any holding under regulation 7 (6) (a);
  - (ii) in the removal of any building or structure or repairs carried out to any house under regulation 10;
  - (iii) in the destruction of any crops under regulation 12;
  - (iv) in providing manure, fertilizers, insecticides or any agricultural operations under regulation 13;
  - (v) in the collecting, processing and marketing of crops under regulation 15;
  - (vi) in remedying the negligence or safeguarding crops or preserving the holding under regulation 17;

(vii) in repairing any damage caused by stock under regulation 18;

(viii) in repairing damage under regulation 19 (2); and

(b) any amounts due rates payable under regulation 9, any outstanding amount of any advance made to such licensee for the purpose of the cultivation, irrigation or other improvement of his holding, and such charges as may be agreed to by the Minister on the recommendation of the committee.

21. Any person who causes any motor vehicle to be driven within the scheme.
22. The manager shall have power, in the event of any emergency, to order all licensees to undertake emergency repair work in any part of the scheme, and any licensee who refuses to obey any such order by the manager shall be guilty of an offence.
23. Subject to the provisions of regulations 7.8,11 and 22, every licence shall be valid for a period of one year and from year to year thereafter, but may terminate at any time:
- (a) by the licensee giving to the manager six months, notice in writing of his intention to surrender his licence;
  - (b) by the manager, on instruction of the Minister, giving to the licensee 12 months' notice in writing of his intention to terminate the licence.
24. Any person who:
- (a) unlawfully interfere with the flow of irrigation water in canals or the opening or closing of control gates within the area;



- (b) make unlawful use of irrigation water by tacking irrigation water out of turn or otherwise;
- (c) refuses to permit the authorized passage of irrigation water across the holding;
- (d) wilfully damages or obstructs canals or control works: or
- (e) refuses to accept or drain off irrigation water when required to do so, shall be guilty of an offence.

25. (1) Any person who is guilty of an offence under these Regulations shall be liable to a fine not exceeding two thousand shilling or to imprisonment for a term not exceeding two months, or to both such fine and such imprisonment.

(2) Where any person is convicted of an offence under regulation 4, regulation 14 (4) or regulation 22 (7), the court may, in addition to any penalty which it may impose, authorize any administrative officer or police officer to cause such person, together with his dependants and property, if any, to be removed from the scheme.

**Appendix III**

First Schedule

LICENCE NO.....

**NATIONAL IRRIGATION SCHEME**

**LICENCE TO OCCUPY HOLDING**

.....son of  
.....of the  
.....District.....Province

is hereby authorized to occupy holding No.....  
of the .....National Irrigation Scheme for the  
period from the ..... day of ....., 19 .....  
to the ..... day of ....., 19 ....., and  
from year to year thereafter unless sooner terminated in accordance with the provisions of the above  
Regulations, and to keep thereon not more than the following number of stock:

- ..... bovines
- ..... goats
- ..... sheep
- ..... mules
- ..... donkeys
- ..... (other stock)

subject to the conditions prescribed by the above Regulations.

Dated this ..... day of ....., 19.....

.....  
Manager

In accordance with regulation 6 of the above Regulations, I have caused the Regulations to be read And explained to the above-named licensee in the ..... language, which he Understands

.....  
Manager

**Appendix IV**

**Second Schedule**

I ..... son of.....  
.....

Of the ..... District of the ..... Province hereby  
acknowledge receipt of a copy of the Irrigation (National Irrigation Schemes) Regulation. I have had these  
Regulations explained to me and I fully understand them I undertake to observe them and pay all sums of  
money payable to me.

.....

Signature or thumb-print of the licensee

.....

**Witness**

.....

**Date**



# KIRINYAGA DISTRICT

## ADMINISTRATIVE BOUNDARIES

