



Future
Agricultures

The Role and Performance of the Ministry of Agriculture in Rachuonyo District

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Introduction

A widely accepted objective of agricultural development is to achieve sustainable intensification. With many people especially in the rural areas deriving their livelihoods directly or indirectly from agriculture, the performance of the sector is therefore reflected in the performance of the whole economy. Growth in agriculture is expected to have a greater impact on a larger section of the population than any other sector. For effective realization of the sector's goals, the structure, capacity and coordination capabilities of the Ministry of Agriculture (MoA) cannot be overlooked.

This study therefore focuses on the roles, performance, financial and human capacity of MoA at Rachuonyo district in Nyanza Province with particular attention given to how the ministry interacts with other agricultural stakeholders in the district. The objective of this study is to generate evidence on patterns and trends in the scope and leverage of MoA at the district level and to draw implications on its capacity to play a coordination role and be demand-driven.

The district covers an area of 930km² of which 834km² is dry land and 95km² is covered by water (Lake Victoria). 743km² is arable (but only 296km² is under cultivation representing 40% of the total arable land) while 91km² is either rocky, too steep to be cultivated or badly eroded. At the time of the last census in 1999 the district population stood at 307,126 people. Assuming 2% p.a. population growth, the current population is thus around 360,000 people, giving a high population density of 431 persons per km². The district headquarters, Kosele, is located about 80 km south of Kisumu, the nearest major urban centre. New and/or good quality tarmac roads cover most of this distance. However, within the district the state of most roads (murrum) is poor.

Nyanza Province has high levels of poverty and the lower, drier parts of the district (especially West Karachuonyo division – see below) are said to be some of the poorest in the country.

This study covered all the four divisions in the district. It employed qualitative methods of collecting data mainly through interviews. An interview schedule was used to guide conversations with key informants, who covered a wide range of government and non-governmental players (NGOs and private sector agencies). In summary, interviews were conducted with 20 officers at district, divisional and front-line level of three different ministries (MoA, MoLFD, MoCD), four farmer focus groups and individual farmers, four input stockists, three crop output buyers and five NGOs. More details are provided in Appendix I. The survey period spanned three weeks with the first period occurring from 16th - 28th July 2007 and the second one 24th - 29th September 2007.

The paper is organized as follows; section 2 presents the agricultural activities and opportunities in the district. Section 3 describes the challenges for agriculture in Rachuonyo. Section 4 describes roles/duties of MoA at the district level. It also gives challenges experienced by farmers as perceived by different stakeholders. In section 5, the study looks at how the ministry has performed over time and at the performance of the sector over the same periods. Section 6 discusses MoA's interface with other stakeholders in the district. Section 7 highlights limitations of MoA in service delivery. Finally, section 8 gives conclusions from the study and draws policy implications.

2. Agricultural Activities in Rachuonyo

Agriculture is the main source of livelihood for households in the district. Its performance is critical in determining the well being of Rachuonyo people. There are two seasons per year in Rachuonyo, with the “long rains” season lasting from February to August and the “short rains” season from September to January. In general, the rainfall in the long rains is more reliable than that in the short rains.

The district is divided into two agro-ecological zones: the medium-high potential “upper midland” (found in Kabondo and Kasipul divisions), and the drier “lower midland” found closest to Lake Victoria (in East and West Karachuonyo divisions).

The upper zone has small farm sizes averaging 2 ha per households with deep, well-drained relatively fertile soils and good rainfall. The main food crops grown in this region include maize, cassava, beans, groundnuts and sweet

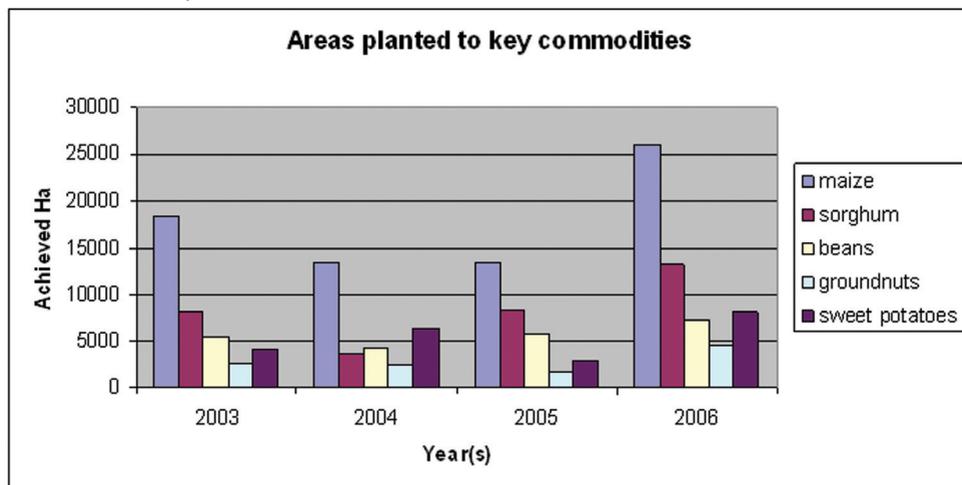
potatoes; while the main cash crops are tea and coffee.

The lower zone on the other hand has larger farm sizes averaging 3 ha per household with soils of poor fertility and drainage. This region is also characterised by large tracts of land lying fallow mainly used for livestock grazing. Food crops include maize, sorghum, millet, cassava, groundnuts, beans and yams (in West Karachuonyo); with the main cash crop in this region being cotton. Fishing activities are also present in the lower region with communities bordering the lake preferring to engage in fishing rather than farming. However, the biggest threat to the fishing industry is the water hyacinth invasion in Lake Victoria which has badly affected fishing activities in the Lake¹.

Figure 1 shows MoA estimates of area planted to the main food crops in the district over four recent years². From the discussions held with farmers and farmer groups, it is evident that productivity per acre of land is low, particularly in the drier parts of the district. Here, farm output

Figure 1. Areas planted to key commodities in the district

Source: MoA, Rachuonyo



(mainly food crops) is unable to sustain farmers through to the next harvest season, a factor that has led many to become net buyers of food. As a result, the district as a whole is said to be regularly food deficit. However, MoA yield data, which are based on desk “estimates” from local staff, at best only partially reflect this picture. They show medium yields of major food crops (Appendix IIa). Based on these yields and plausible estimates of food consumption, the district might have had to “import” cereals in both 2004 and 2005 (but not 2003 or 2006). However, in 2004 – and probably also in 2005 - the district would have been food surplus overall, if sweet potato production is also considered (Appendix IIb).

Farmers in the district reported that they produce food crops mainly for subsistence, but that some are then sold in local markets. Commercial agriculture has not been fully embraced in the district. The smallholders interviewed said they want to be self-sufficient in food crops especially maize, which is the main staple, partly because of concerns about food market unreliability during the agricultural slack periods.

Livestock production activities are also well spread throughout the district with farmers keeping livestock mainly for food and income generation. Many farmers in Rachuonyo district rear local breeds of cows (local Zebu), sheep and goats, and poultry. Dairy goats and cows have been introduced to some group of farmers in the district; Heifer Project International (HPI) gave out dairy goats to farmers in Kabondo division and Adventist Development and Relief Agency (ADRA), a Seventh Day Adventist’s NGO also initiated dairy goat projects with vulnerable groups (those either affected or infected with HIV/AIDS) in East Karachuonyo division.

Beekeeping as a commercial enterprise is currently being promoted in the district through

the National Agriculture and Livestock Extension Programme (NALEP/SIDA) under the ministries of Agriculture and Livestock. Oyugis Integrated Project (OIP) a CBO in Kabondo division is also involved in promotion of beekeeping as a commercial enterprise.

2.1. Opportunities for Agriculture in Rachuonyo

Rachuonyo district has opportunities which can be exploited thereby resulting in a robust and dynamic agricultural sector. According to interviews conducted with different stakeholders, a number of crops were noted as having potential for increased yield levels and commercialization purposes, especially in the “upper midland” zone.

Most stakeholders interviewed indicated that the potential for groundnut to be a successful commercial crop is high. It was said to be the only crop that currently fetches good returns to farmers; all the three output buyers interviewed also confirmed this. They further indicated that the crop occurs in the markets all year round with its demand being almost consistent. It was however said that during the last harvesting season, crop failure was realised due to heavy rains and attack by groundnut rosette virus. Other crops noted to have potential of doing well in the district included birdseye chillies, watermelon, sisal, tomatoes, onions and sunflower. They can be fully commercialized thereby improving farmers’ income levels.

Stakeholders interviewed indicated that over-reliance on rain-fed agriculture is one of the major causes of food insecurity and poor agriculture performance in the district. Despite the enormous potential for irrigation, irrigation based farming has not been widely embraced especially in the lower zones bordering Lake Victoria, which also happen to be the driest regions of the district. Opportunities therefore

were said to exist for farming through irrigation. At present those living adjacent to the lake have not fully embraced the idea of farming and have always considered themselves more fishermen than farmers. The reasons advanced for weak or absence of irrigation initiatives were lack of efficient technologies and inability of the local people to finance such projects.

3. Challenges and Opportunities facing Agriculture in the District

Agricultural activities mentioned above face a lot of challenges that have hampered the sector's growth and the realization of poverty-reducing benefits. Table 1 shows the main challenges that were identified by farmers during focus group discussions, in the order in which they were mentioned. This is intended to highlight the seriousness of these problems as perceived by farmers.

Based on the problem identification criteria, it is apparent that farmers face a number of common challenges across the district. The challenges as identified can be categorized into two; firstly, market and institutional problems, and secondly, farmers' own asset base.

3.1. Market and Institutional Issues

Farm inputs problems came out strongly during focus group discussions. Various aspects were noted with respect to farm inputs. Farmers were more concerned about high seed and fertilizer prices which have resulted in the use of poor quality inputs (especially seeds). Use of dried seeds (especially maize, sorghum, beans) from the previous season's harvest as seed input in the next planting season is a common practice in Rachuonyo; with citation of substandard and un-affordability of key inputs as the cause. The occurrence of unscrupulous input dealers was also mentioned by two groups with complaints of poor quality seeds and fertilizers being

bought from the market. One farmer was quoted as saying, 'compost manure does well in my farm than fertilizer from the markets...' They further raised queries with the ability of MoA to regulate and ensure non-genuine seed dealers are arrested. A farmer from East Karachuonyo complained bitterly of having bought fake tomato seeds in 2006 which resulted in low yields. Some farmers also reported problems with seeds purchased from Kenya Seed Company; maize seeds in particular were said to be of poor quality hence at the moment, many respondents preferred seeds from Western Seed Company.

Output markets in Rachuonyo district were identified as being poorly established. As shown in table 1, market problems came out strongly during discussions (three groups). The problems identified here are twofold. First, the low market price for farm produce was widely mentioned by farmers. An important gauge of market incompleteness is the spread which farmers encounter between key commodity prices at different times of the year. Towards the end of year 2006, maize was being sold at Ksh 47 per 2kg tin ('gorogoro'), whereas during harvest times and subsequent periods following harvest times when maize is still in abundance, the same commodity sells for as little as Ksh 15. Farmers indicated that they have not focussed on yield improvements due to low returns they get from agricultural commodities. Secondly, the lack of markets for some crops was also raised as a concern for smallholders. For instance some farmers in West Karachuonyo division had many crates of tomato rotting in the store due to lack of markets to take the produce to. At the time of interview, these farmers expressed their frustration from the losses they were getting and noted that come the next planting season, they would not plant tomatoes. Similarly, farmers from Kabondo and Kasipul divisions note that,

after embracing the sweet potato projects initiated by KARI and realizing high improvements in yield levels, currently they have nowhere to dispose of the commodity with the local markets offering low prices of Ksh 20 per 5 tubers. Some respondents expressed their preference to dispose of produce at farm gate prices which were rather too low. However, they noted convenience of such an arrangement as they could not be able to afford paying high Municipal Council market charges.

A problem closely tied to the market issues and which was more predominant in East and West Karachuonyo is poor infrastructural facilities. The dilapidated state of communication and road networks in the district is said to have greatly impacted on agricultural performance. Poor road networks are reported as the main cause of high transaction costs and inaccessibility of input and output markets for agricultural products thereby reducing gains from the sector. The end result is that people opt out of agriculture, especially in lower parts of West Karachuonyo where the community prefer fishing activities to farming. Referring to the example given above on tomato rotting, farmers from the region identified poor state of roads as the reason why buyers from outside could not access their farm produce. The region has been de-linked from wider markets because most of the roads are impassable.

Another challenge identified from Table 1 is extension service provision (mentioned by three groups). Farmers raised various concerns that can best be summarised as resulting from poor extension services received. The problem of low technological know-how and awareness appears to be felt across all the four focus groups. Many respondents noted that they still uphold their traditional farming methods. For instance, hand hoeing and ox plough continues to dominate the region. Low awareness levels

further exacerbate the problem of poor farming practices. Farmers were more specific to pick quarrels with MoA over poor education on issues such as; which seed types ought to be planted in what type of soil and what quantity of seeds would produce a specific yield level. At one point a farmer indicated that even though he didn't attend any agricultural courses, he was well conversant with the type of minerals in the soil and thus the type of fertilizers to apply; with much conviction that no ministry official had such knowledge, hence their absence.

3.2. Farmers' Own Asset Base

This is the second category of problems identified by Table 1. The low asset base of farmers has constrained their growth agriculturally. Interviewees expressed their inability to purchase farm inputs from the markets and to acquire modern farming equipments due to lack of capital. This is also evident from farmers' prevalent use of hand hoeing techniques.

The low asset base of farmers is also manifested in the striking nature of striga. From table 1 above, the striga problem comes out clearly as a cause of concern. Striga is so rampant in nearly every farm plot. It complicates farmers' problems especially bearing in mind that no recognized strategy has been identified and adopted. At present ICIPE is collaborating with MoA in advising farmers to use farm yard manure and plant napier grass around farm plots. Farmers are also advised to practice intercropping with desmodium. Interviews held with farmers revealed that the challenge with ICIPE initiatives is that many farmers have few livestock hence cannot produce enough manure for entire farm fields. Meanwhile, the new striga resistant seed varieties being trialled elsewhere in western Kenya have not yet reached Rachuonyo.

Soil erosion problems were also mentioned by two groups, with respondents citing lack of relevant structures and capacity for controlling soil erosion problems. It was noted that, even though MoA at times initiates soil conservation projects in collaboration with other stakeholders, farmers don't have the ability (tools and equipments) to replicate the same in their farms. Soil erosion problems are evident from the brownish colour rivers flowing towards Lake Victoria across the district; top soils having been swept into the rivers.

Pest and diseases that lead to crop damage were further cited as a big challenge. Farmers

mostly from the upper divisions lament that groundnut which at present fetch good returns faces extinction. Infestation with groundnut rosette virus has caused a lot of crop damage and currently the impact is being felt through reduced yield levels. One farmers (also an output buyer) said bitterly, 'I devoted much time and resources to my plot and was expecting to harvest more than 10tins (gorogoros) of groundnuts, unfortunately that disease destroyed all groundnuts on the farm, I only got 2'gorogoros'. Unfortunately when contacted on this, MoA officials knew little about this problem and at

Table 1. Challenges expressed by different focus groups

Kosele farmer group	Pesanielo (women's group)	West Karachuonyo farmer group	Kabondo group
Scarcity of certified seed	Lack of capital for inputs	No extension support	Diseases and pests
Price of inputs (seed)	Low and unpredictable rainfall	Striga	Striga
Striga	Pests (e.g. bollworm)	Lack of markets for produce	High input costs
Unreliable markets and low prices	Striga	Price of inputs (chemicals)	Low market prices for produce
Unscrupulous dealers (poor quality seed)	Reliance on hand hoeing	Lack of capital for inputs	Declining soil fertility
Low technological know-how and awareness	Poor soils	Poor roads	Poor extension services by MoA
		Government programmes (e.g. Njaa Marufuku) don't reach their division	Unscrupulous input dealers
		Reliance on hand hoeing	
		Poor information flows (e.g. market prices)	

Note: Ministry officials present during discussions at Pesa ni elo. West Karachuonyo group was also contacted through MoA. Kosele and Kabondo groups were sourced independently.

some point one officer noted that since that was a viral disease, little could be done.

Individual farmers interviewed also highlighted similar points as above. Importantly, one farmer stressed the absence of a comprehensive land policy as the greatest challenge experienced by his counterparts. He said this has led to the inability of many farmers to access credit facilities to boost their operations and also hindered respondents from articulating clear strategies to tackle soil fertility problems.³

3.3. Other Stakeholders' Views on Farmer Challenges

Other stakeholders also had a take on what kind of problems farmers in the region face. From interviews conducted with these agricultural stakeholders, poverty levels and market problems were the main emphases. For instance, one stockist emphasised that many farmers don't have the money to afford inputs; he said "some come to our shops wanting to buy, but then just ask for the prices then walk away", indicating their inability to afford. It was further mentioned that farmers tend to rely so much on manure, but then not all of them have cattle to produce enough manure.

Additional problems identified include:

- Declining land to person's ratio: Landholdings continue fragmenting day by day as population increases; this is according to MoA frontline extension staff interviewed. The situation is said to be prevalent in the upper zones of the district where land productivity is high. The challenge then is how to apportion the fixed land sizes to the increasing populations. A customary practice common in this region is that of land subdivision to every male child in a homestead. It was noted that the continual reduction in arable land sizes for settlement purposes is affecting overall farm output as only small portions of land are left for cultivation. Comparatively, the lower parts of the district

with unproductive agricultural land are reported to experience less of this problem. Large tracts of land are seen lying fallow as one traverses these regions.

- Human health issues including but not restricted to the HIV/AIDS pandemic, and other debilitating diseases such as malaria, other insect-borne and water-borne diseases in the face of weak health care systems were also identified by MoA as hindering farmers' performance. HIV/AIDS and malaria cause the highest number of deaths. There are concerns about the many hours people are engaged in funeral activities thus reducing the number of man-hours per day in agricultural activities. The effect cumulatively results in reduction in productivity as little time is devoted to agriculture. The numerous deaths experienced have further resulted in the loss of productive agricultural labour force, key resourceful personnel and diversion of many resources for treatment purposes. Finally, an upward trend in child-headed households due to death of adult persons in the families was noted as causing poor decision making on agricultural activities which in turn affects performance.
- Collapse of co-operative societies and absence of micro-financial institutions: The co-operative societies and micro-financial institutions are very important for agricultural growth and development. Unfortunately in Rachuonyo, farmer co-operative societies which used to operate all collapsed. This has drastically reduced the bargaining power of farmers in terms of accessing good markets for their produce and credit facilities. Farmer co-operative societies that existed were mainly for cotton and coffee growers. Some of these cooperatives have been revamped though others still remain dormant. The coffee cooperatives identified are Ogera, Ayoro, Kabondo, Pala (all in Kabondo division) and Orinde in

Kasipul; all of which are inactive at the moment. On the other hand, cotton cooperative societies identified include, Kibiri, Kanyaluo, Pala, Wang Chieng (all operating), Kosele and Kendu bay. Moreover, the region lacks micro-financial institutions that advance loans to farmers. Lack of finance was raised by all stakeholders as limiting production and investment in value addition activities. MoA staff interviewed indicated that the nearest financial institution which offer loans to farmers is the Agriculture Finance Cooperation (AFC) situated in Migori town; this is several miles away from Rachuonyo district (and rarely lends to semi-subsistence smallholders – see Table 2 below).

- Socio-cultural beliefs: These are said to greatly affect agriculture in the district. For instance, in a homestead having two or more wives, or even many sons, planting has to be done in sequence such that if the first wife or son has not planted, his/her followers cannot go on with planting on their farms until the eldest does so. This practise is said to lead to cases of delayed planting which in-turn affects overall yields later on. Farmers' disregard of fertilizer use was also noted as a hindrance to improved yields. Some of them even pointed out during interviews that fertilizers are the main cause of declined soil fertility. Finally, a problem linked to culture and which was largely reported in the lower parts of the division by MoA is the belief by farmers that they are not agriculturalists but fishermen.
- Low technological know-how and awareness level among farmers: This problem is closely tied to the low asset base of farmers. Stakeholders interviewed noted that many farmers still uphold their traditional farming techniques; use of hand hoeing, traditional methods of ploughing land and refusal to adopt fertilizers being common. Some NGOs

working with farmers also expressed concern about the slow adoption rate of new concepts. However, this was said to arise partly because of there being too many technologies from different sources leading to cases of confused clients.

3.4. Challenges Faced by Stockists

Farm input stockists are an integral part of the whole process of agricultural transformation. Without adequate farm inputs, the objectives and mission of the sector cannot be adequately achieved. It is thus important to consider the type of challenges experienced by these stakeholders. Interviews conducted with input stockists revealed the following;

- Farmers' limited purchasing power: Stockists interviewed expressed concern about farmers' low capital base. They noted that most farmers can only afford to buy items in small quantities; stockists are thus forced to acquire small units of their products to meet consumer demand. This has limited their scale of operations. Low volumes of sale were also noted as a constraint to expansion of their operating scales with all these affecting their margin levels. Some even projected a bleak future for their enterprises if situations do not reverse.
- Poor infrastructural facilities: It was indicated that the poor state of roads in the district has resulted in high costs of bringing inputs. This has forced some stockists to raise prices in order to cover for the massive costs incurred.
- Some input stockists interviewed took issue with MoA's neglect of their presence and importance. As much as they perceived themselves to be very integral, input stockists noted that MoA has not fully realised their importance and the key role they play in agriculture. Mixed reactions are reported for this point. While some said they are never invited to MoA field activities or to interact

with MoA, others expressed satisfaction with MoA interaction. By contrast, MoA stressed that they always incorporate the stockists in field activities where their presence would be deemed relevant to both farmers and other stakeholders. MoA further indicated that every year they hold workshops/ training for farm input stockists.

- Input stockists interviewed expressed their interest in getting direct linkages to main suppliers such as Western Seed and Kenya Seed Companies in order to boost their scale of operations and to facilitate their stocking of genuine products.
- Competition from general traders: Specialist stockists complained of lack of regulation of general traders who also sell inputs some of which are poor quality. This unfair competition leads to low volumes of sale, false accusations by those who generalise input dealers as having substandard products and low profits.

3.5. Challenges Encountered by Output Buyers

The crop output buyers are also very important stakeholders in the whole process of agricultural transformation. Of the three output buyers interviewed for this study, one dealt exclusively in groundnuts, whilst the other two purchased and traded a range of crops (including groundnuts, maize, millet, sorghum and beans). They identified similar challenges which made the study to conclude that a lot still need to be done if agriculture is to get moving in this region. It is important to mention that the study occurred at slack agriculture period; hence it was not easy to get output buyers dealing in large scale operations.

Nevertheless, the ones identified gave a clear indication of the actual challenges;

- Low harvest levels of farm produce which in-turn affects their operations. When yield levels are low due to crop failures or diseases,

output buyers said they do not get enough commodities to meet their markets demands both locally and externally. This shortage further complicates matters in that price hikes are experienced both at farm gate and market. For instance, one of the groundnut buyers noted that, at the time of interview, they were buying a 2kg tin of groundnuts for a wholesale price of Ksh 150 - up from the normal Ksh 80. If then they have to sell it at retail price, they quote high figures that consumers are at times not ready to offer.

- Low capital base hence inability to expand scale of operation. Output buyers interviewed were operating under small scale levels hence cited low returns from their activities.
- Information asymmetry: Due to their limited ability to get in touch with external markets, the localized traders noted that at times they do not know exactly what outside markets would have offered them for the same commodities they trade in. One trader indicated that at times she sends her products (via the country buses) to agents in Nairobi who in turn sell the produce and send her money. Though she normally gives a price range within which products should be sold, the exact market price offered by the agents remain unknown.
- Competition from traders bringing in similar products from outside the district. With free entry and exit into the markets, two of the output buyers interviewed indicated competition as a challenge, with traders coming from outside the district with commodities which then compete with their products.

4. Roles of MoA within the District

This section looks at the duties/roles of the MoA in Rachuonyo district. A district level study is believed to be the best place to get insights into how the ministry interacts and cooperates with

other stakeholders at field level (as close as possible to the point of service delivery). Appendices IIIa and IIIb contain the national and district service charters for MoA, the latter drawing its contents mostly from the former. Different officers interviewed noted that the roles being performed by MoA at the district level are in line with the policy objectives of the sector which is to raise household incomes, create employment and ensure food and nutritional security. From interviews held with MoA officers, we learnt that district activities are set according to predetermined documents (strategic plan). However, this may limit the ministry's flexibility to respond to problems expressed by farmers on the ground. Perhaps this explains why many farmers and stakeholders think the ministry is not performing adequately; area-specific problems are not tackled effectively.

4.1. The Ministry's Own View

The district service charter contains the core responsibilities being undertaken by MoA in Rachuonyo. According to the district officials, the services stipulated in the document are largely drawn from the national service charter and as such represent the aspirations of the national charter. A number of interesting observations can be made regarding the district service charter.

- Extension services dominate the MoA's perception of its day-to-day activities. Most of the services mentioned in the charter (12 out of 23) are extension-based. By contrast, farmers wanted to see the Ministry perform a wider set of functions than simply provision of information (see below).
- Little is being done with respect to markets. The market development function is limited to provision of information - with the added concern of 'how effectively is this performed'? From the earlier discussion on farmer challenges, market information asymmetry came out strongly. Agribusiness officers

under MoA are responsible for all marketing aspects. A closer look at their roles as stipulated in the service charter reveals that little emphasis is given to market development. The excerpt reads, 'monitor the performance of agricultural markets and agricultural marketing systems and advise on measures to improve the same in the district'.

- Development, implementation and coordination of programmes in the agricultural sector seem to be embodied in the convening of the District Agricultural Committee and organisation of agricultural stakeholders' forums.

However, it is worth noting that, according to various stakeholders, there are discrepancies between the roles as written down in the charter and the real duties performed by MoA on the ground.

4.2. Farmer's Views

The main target client for all the efforts being made to improve agricultural performance is the smallholder. As such their perception on MoA's roles cannot be overlooked. During the focus group discussions, farmers offered comments on both the effectiveness with which MoA performs its roles and on what those roles should be. Many of them noted that extension services are carried out mainly through farm demonstrations, field days and presentations at barazas and only occasionally through farm visits. They were quick to point out that these services are too few and more needs to be done to increase the number of the field activities identified. It was also pointed out that the training conducted for farmers is too theoretical with little or no practical applications. A farmer commented that, 'too much theory and little practice leaves one more confused than s/he was before...so I'd rather not go for the meetings to be confused...'. From this excerpt it is evident that farmers want a more active role than simply information.

Table 2. Sample information on credit advancement from Kabondo

Institution	Products Available to Farmers	Interest Rate	No. of Loans Disbursed	Total Amount	Comments
AFC	loan	10%	0	0	Only one farmer applied
NMK	Cash grant	N/a	-	KShs 360,000	Given to three women groups

Note: AFC is said to have stringent rules that discourage smallholder farmers from applying for loans

Further areas of concern to farmers were:

- Demonstrations with no support to acquire relevant inputs means farmers cannot adopt technologies that are demonstrated.
- Assistance to prepare proposals alone being done by the ministry is not helpful. Instead, farmers want MoA to strive to bring micro-finance services and microfinance institutions as close to the ground as possible. For instance, farmers from West Karachuonyo complained bitterly of not having any micro-finance enterprises within their reach and that even the proposals they prepared to get funds through the Njaa Marufuku Kenya programmes have not borne any fruits despite the numerous copies they have submitted. Table 2 illustrates the lack of microfinance provision within Kabondo division.

The issue of inputs appeared to be very thorny during discussions, with many farmers maintaining that it was MoA's duty to provide them with seeds. In some cases this expectation persists because MoA did distribute seeds in the past (see Table 3 below). In addition, some NGOs give out materials (e.g seeds, fertilizers, chemicals, and livestock) for free, causing farmers to prefer working with these organisations where they exist. The view taken in this report is that, within a liberalised marketing environment, input supply is fundamentally a task for the private sector. However, there may be valid roles for MoA in providing small

quantities of inputs for farmers to experiment with (especially where MoA is demonstrating new seed varieties to producers) and/or in coordinating with stockists to ensure that they know what MoA is promoting and are able to have supplies in stock when farmers express an interest following a demonstration.

Farmers further questioned the effectiveness of MoA's action to weed out sellers of sub-standard inputs with many cases of fake inputs mainly seeds and fertilizers being reported.

Other stakeholders echoed most of the concerns raised by farmers. The latter point on inputs was strongly supported by farm input stockists. Stockists interviewed noted that the presence of unscrupulous input dealers was a disgrace both to their operations as well as to farmers, yet MoA lacked adequate resources to curb the act. In addition, they noted the low purchasing power of many farmers due to limited resource potentials and as such recommended that MoA to facilitate farmers in acquiring relevant inputs after demonstrations.

From these discussions, one can summarise the views of farmers and other stakeholders as being that information alone is not enough to get agriculture moving in Rachuonyo. Thus, MoA should see its role as being broader than just information provision. However, even the information function is not being performed effectively yet.

An additional role of MoA – that of promoting coordination across agricultural stakeholders and activities within the district – is discussed in section 7.

5. Performance of MoA Over Time

The importance of MoA in relation to the fight against poverty is underscored in the Strategy to Revitalize Agriculture SRA (Republic of Kenya, 2004). MoA is identified as the main stakeholder in the agricultural sector, even though the thrust of SRA is to limit the influence of the state within the agricultural sector so as to create space for an expansion of private sector responsibilities. The performance of the ministry has been pointed out as key in determining the growth of Kenyan agriculture. In this regard, the following section looks at the performance of MoA in Rachuonyo district in an attempt to relate it to the sector's performance. The information reported in this section was provided by farmers and other stakeholders with a long history of agricultural practices in the district. For farmers, focus group discussions were employed where farmers' memories were relied on. The focus groups consisted of 5 to 7 respondents of varying ages taking into keen consideration that at least two of them (in every focus group) must be older people with clear memories of how the agricultural sector has transformed over time. The discussions were rather interesting with farmers deliberating amongst themselves before taking common stands on opinions expressed.

Participants were asked to differentiate periods in the recent history of agriculture in Rachuonyo, according to how agriculture in the district was faring and the roles played by MoA in supporting this. The periods quoted were dependant on how far back respondents could remember. Table 3 indicates the periods as identified by the focus groups and the subsequent responses given.

Information gathered for the pre-independence era indicates a vibrant agricultural sector with a well functioning government department in charge of agriculture. After independence and in the subsequent two decades, it was reported that the ministry in charge of agriculture played a leading role in extension services, focusing mainly on food crops (maize, sorghum, millet). Government officers used to visit farmers on a regular basis and as such could monitor closely on crop performance.

The advent of the Training and Visit (T&V) extension system in the early 1980s ensured that extension effort was sustained into that decade. However, one group questioned how hard the new staff worked, whilst two of the others recalled that a decline in support started in the mid-1980s and deepened during the 1990s. Indeed, the 1990s was the decade that was remembered with least fondness. On the one hand, production of cotton – the main cash crop for half the district – suffered a major decline, due to a combination of marketing problems post-liberalisation and falling world prices. Sunflower and sorghum also experienced marketing problems and experienced production falls, with farmers switching to maize and groundnuts. On the other hand, two groups noted that the level of extension support provided during this period was particularly low (although the Kosele group recorded a different experience).

This last point aside, there is a high degree of consistency in the information provided by the varying groups until the late 1990s. However, contrasting perceptions emerge for the period 2000 to present. Three of the groups – two of them, admittedly, sourced by MoA staff – reported an increase in MoA activity, while the Kosele group – which had also reported a different experience to the others in the 1990s – felt disillusioned. At this point, we note that four focus groups cannot be considered representative of all farmers in Rachuonyo. However,

Table 3. Performance of MoA Over Time

	Kosele	Pesanielo	Kabondo	West Karachuonyo
1970 to early 1980			Most crops mentioned in Appendix IIa were doing well. Sunflower introduced. MoA staff were many. Every sub location had a FEW - mainly involved in soil conservation, gully erections and promotion of 4k clubs in schools	
1980s	MoA introduced two new millet varieties (Seredo, Serena) to combat falling yields – did well. More extension staff employed, but not hard working	Sunflower, cotton, millet (Seredo), vegetables doing well with good markets. Seeds provided during demonstrations. Number of extension staff fell from mid-1980s.	All the crops mentioned in Appendix IIa did well except for citrus fruit, which disappeared (reasons unclear to them). Train and Visit system introduced. Broadcasting discouraged and planting in line encouraged. One FEW to attend to 48 farmers in 2 weeks. Sub-location route map developed. Extension staff decline started to be noticed. Food crops made a priority over cash crops. Certified seeds stressed for high yielding and early maturity. Use of farm inputs stressed. Supervision of field staff intensified. Staff development i.e training improved	Sunflower, cotton, millet (Seredo), tomatoes doing well with good markets. Seeds provided by MoA for selected crops. MoA arranged for transportation of crops from their division. Extension support fell from mid-1980s.
Early 1990s - 2000	Cotton production started falling; groundnuts and maize intensified. Quality of extension effort improved; some inputs provided.	Rising population led to falling land holding sizes and soil fertility. Yields falling. Market problems – worsening state of roads. Extension support still poor.	Cassava mosaic disease wiped crop out completely. Group extension approach encouraged. Much reduction in staff resulting in high farmers:staff ratio. Reduction in facilities for MoA- vehicles. Disappearance of cotton.	Sunflower and cotton abandoned due to poor prices and (for sunflower) fewer buyers. Sorghum reduced for same reasons.
2000-present	Seredo and Serena seeds disappeared; birds destroy crops. Fewer extension staff; end of input distribution.	Renewed MoA activity, e.g. farm demonstrations, field days, revival of Agricultural Society of Kenya (ASK) shows.	Seredo and Serena seeds disappeared but currently available with the ministry after great public demand. More MoA work evident – farmers have seen more demonstrations than before. Cotton revival	Renewed MoA activity, e.g. farm demonstrations, field days, revival of ASK shows. Some return to sorghum production 2006, cotton 2007.

Note: Ministry officials present during discussions at Pesanielo. West Karachuonyo respondents were assembled by MoA staff after field day. By contrast, Kabondo and Kosele groups were independently sourced.

a perception of patchy coverage of (increased) extension effort during the current decade would be consistent with other information gathered during this research.

6. MoA Interface with Other Stakeholders

As already noted, there are a wide range of agricultural stakeholders in Rachuonyo. MoA recognizes and appreciates the positive impacts created by the different stakeholders and is interacting with them in different programmes. Table 4 illustrate stakeholders in Rachuonyo and how they collaborate with MoA.

The relationship between MoA and non-government stakeholders within the district is well illustrated by the case of the Agriculture and Environment Programme (AEP) of the Catholic Diocese of Homa Bay. The programme intertwines different stakeholders, hence gives a good insight on the dynamics of interfacing. AEP has the following components:

- Livestock improvement; promote exotic/ local dairy goat and local poultry. Involve MoLFD through use of their technical staff to offer the knowledge and skills to farmers. The programme has established multiplication sites in Kabondo and Kasipul divisions (UM) where farmers take their goats for fattening and multiplication and after they are sold, part of the proceeds goes to offset the operating costs.
- Grain storage; promotion of small-scale storage silos for grains, which reduce damage from attack by large grain borer. MoA is involved in providing skills and knowledge on good silo types to be built.
- Micro finance; with the involvement of MoCD promote saving mobilization along the structure of solidarity groups.
- Marketing; again in liaison with MoA's district agribusiness officer and MoCD, link farmers

to markets for the crops that have been identified for support by the programme.

Value addition; involve agribusiness officer in building capacity for value addition. Some groups are processing sunflower oil, peanut butter (groundnut), and milling of orange-fleshed sweet potato which are rich in vitamin A.

Sustainable agriculture; promotion of organic farming, agro forestry and soil conservation

AEP has only one officer in Rachuonyo district, so is heavily dependent on ministry staff and expertise for the implementation of its activities⁴. There is thus clear collaboration between MoA and AEP. However, there is less evidence of coordination in the planning of activities and programmes.

Collaboration between government and non-government stakeholders can be regarded as a form of cost sharing – the government paying extension workers basic salaries while the development agencies meet their field expenses. However, most NGOs interviewed also agreed that the ministry adds value to their activities. For example, some commended the good qualification profiles of the MoA staff which was seen as a boost to NGOs operation. Most NGOs lack the technical expertise in agriculture-related activities and as such rely on ministry staff for information and technology dissemination especially when having field day activities. Another area where MoA was seen to be adding value was during interactions with community members. Some NGOs noted that before the on-set of projects, they rely on information from the ministry on potential areas of operation. An interview with an NGO dealing with food security issues (ADRA-K) revealed that at the inception of their project in Rachuonyo, they relied on information from the ministry on areas that were more food insecure, thus vulnerable; and based on that information they decided on where to implement their project. The ministry also play a key role in acting as points-men

Table 4. MoA interaction with other stakeholders

Stakeholder	Interface with MoA	Nature of interaction
A. Government agencies		
Ministry of Livestock and Fishery Development (MoLFD)	<p>Implementation of NALEP/SIDA activities (capacity building in areas of agricultural development).</p> <p>Activities: Capacity building mainly in areas of agricultural development Facilitate farmer group registration. In the Njaa Marufuku Kenya (Food Security and Management) programme run by MoA, MoLFD train farmers on good livestock practices. Programme mainly intended to improve food security situation in the district.</p>	<p>Sharing of resources; vehicles, office facilities (computers and internet facilities), technical expertise. Budget preparation for the programme done jointly (MoA and MoLFD)</p> <p>Sharing of resource personnel (technical expertise)</p>
Ministry of Cooperative Development and Marketing (MoCD)	<p>In the NALEP/SIDA programme, involved in registration of farmer groups and emerging farmer cooperative societies. Involved in disseminating market information to farmers during field day forums organized by MoA</p>	<p>Interaction mainly involves exchange of ideas, skill and knowledge on good market practices and advantages of social capital.</p>
Ministry of Water and Irrigation	<p>Main interaction is with the irrigation department.</p> <p>Activity; -Organize joint field exhibitions where farmers get trained on water conservation technologies. For instance, an on-going water harvesting programme in West Karachuonyo division (Lower zone). MoA is to provide farm inputs while Irrigation department to construct layouts.</p>	<p>Sharing of information and ideas. The two ministries participate in designing the programme's activity schedule.</p>
Ministry of Environment and Natural Resources	<p>Preparation of tree nurseries on selected farmers' fields (especially during demonstrations) after which the same are sold to farmers. Invited in field days to disseminate knowledge on good agro-forestry practices. Conduct environmental impact assessments for MoA before projects are implemented in the district, for instance did one for a dam construction project in East Karachuonyo division (LM).</p>	<p>Joint planning of field activities. Mostly exchange of information and ideas by the technical expertise. At times MoA facilitate environment officers with lunch transport allowances.</p>

B. Non-governmental agencies		
Adventist Development and Relief Agency (ADRA)	Involve MoA officials in field activities especially in East Karachuonyo division where located; in assessing food security situation of the vulnerable groups (those affected or infected with HIV/AIDS). Establish gardens and tree nurseries for the target groups.	Since they lack staff at the district, mostly rely on MoA personnel to disseminate the information. Facilitate the staff by meeting field expenses; transport and lunch allowances.
Agriculture and Environment Programme (AEP) of the Catholic Diocese of Homa Bay	Mainly involved in food security improvement (further analysis of the programme is discussed after the table) MoA provide knowledge and skills through its district officers on how to improve food security situation in the district.	
Oyugis Integrated Project (OIP)	It is a Community Based Organization (CBO) in Kabondo division (UM). Use MoA officials in training farmers on food utilization, alternative diets and improved nutrition.	Sharing and exchange of information and knowledge. Facilitate MoA staff involved; lunch and transport allowances.
SCC Vi-Agroforestry programme	Situated in Kabondo division. When training farmers on good agroforestry practises, mainly use the MoA's Land Development and Environment officer to assist in disseminating information.	Meet the field expenses for the officer; lunch and transport allowances.
Homa Hills Community Development Centre (HHCDC)	Located in West Karachuonyo division (LM). Use MoA staff in training their farmers on farming and post-harvest handling techniques.	Facilitate ministry staff; lunch and transport.
C-MAD	In National Agriculture Field Days organized by MoA, provide demonstration equipments; farm machinery. Also provide livestock in field days for demonstration purposes only; brought dairy goats for a field day held in Kabondo division, which were then used for teaching farmers.	

linking NGOs with community leaders for easy acceptability by the community members.

By contrast, there is very little collaboration with farm input stockists or other private sector agencies. Farm input stockists felt neglected and

their role taken for granted, probably explaining the biggest problem about inputs as expressed by farmers. Stockists are an integral part of the agricultural development processes, hence the need to have them on board. Some, however,

said that at times MoA invites them for field activities where they just play a passive role of listening and no involvement in major activities. Contradictions were however noted with MoA insisting that they always bring stockists on board whenever it's necessary.

A number of farm input stockists interviewed talked of MoA personnel lacking the up-to-date technological know-how on dealing with the current farm problems. An example is given on striga control: most officers, when asked about how best to control this weed, answered that KARI and ICIPE are doing research and will inform MoA of their findings when they have them. By contrast, a CBO in Kabondo division (OIP) is currently advising farmers on intercropping with 'desmodium plant', which supports the stockists claim. The stockists maintained that MoA officials are not abreast with the latest technologies and new products in the market and as such cannot advise a farmer adequately. One stockist challenged us to go ask any official about the latest most effective bollworm pesticide. But the same stockists agree that these officials are indispensable on enduring technologies, for example soil conservation initiatives.

For sustainability, most of the non-governmental extension providers have phase-out plans. This involves staff reduction, encouraging groups to merge so as to create economically viable units, and giving opportunities for group leaders to take up some management roles. NGOs interviewed stated that from the onset, they let communities know project durations and allow community members to assume key responsibilities in running the groups. Promotion of cost sharing/cost recovery approaches right from project inception assists in enhancing farmers' project ownership. Others like ADRA encourage groups to form CBOs to carry on with the work. It was said that after groups are formed, the NGOs would provide them with training in resource mobilizations, management

practises and even linking them up with service providers and markets.

A critical point to consider here, however, is that MoA is likely to be one of the most important service providers that these groups rely on. Hence, for full sustainability, NGOs should not simply draw on existing MoA capacity for the duration of their projects. Instead, they should seek opportunities to contribute to the development of that capacity. Such opportunities are currently emerging through fora that offer the potential to make MoA more responsive and accountable to farmers and other stakeholders within the district. We argue below that NGOs have not yet fully seized these opportunities.

6.1. District Agricultural Committee and District Agriculture Stakeholders' Forum

The District Agricultural Committee is a gazetted policy body within the district that offers a platform to farmers to air their views concerning the sector and allows the relevant government ministries to coordinate their agricultural activities within the district. Its composition is as follows;

- District Commissioner as the chairman
- District Agricultural Officer as the secretary
- District Livestock production Officer, member
- District Veterinary Officer, member
- All the Divisional Agricultural Extension Officers (see section 7 for more details)
- A farmer Representative from each division

Other stakeholders, such as input stockists and NGOs, do not have a permanent place on the DAC, but may be called if required for a particular discussion.

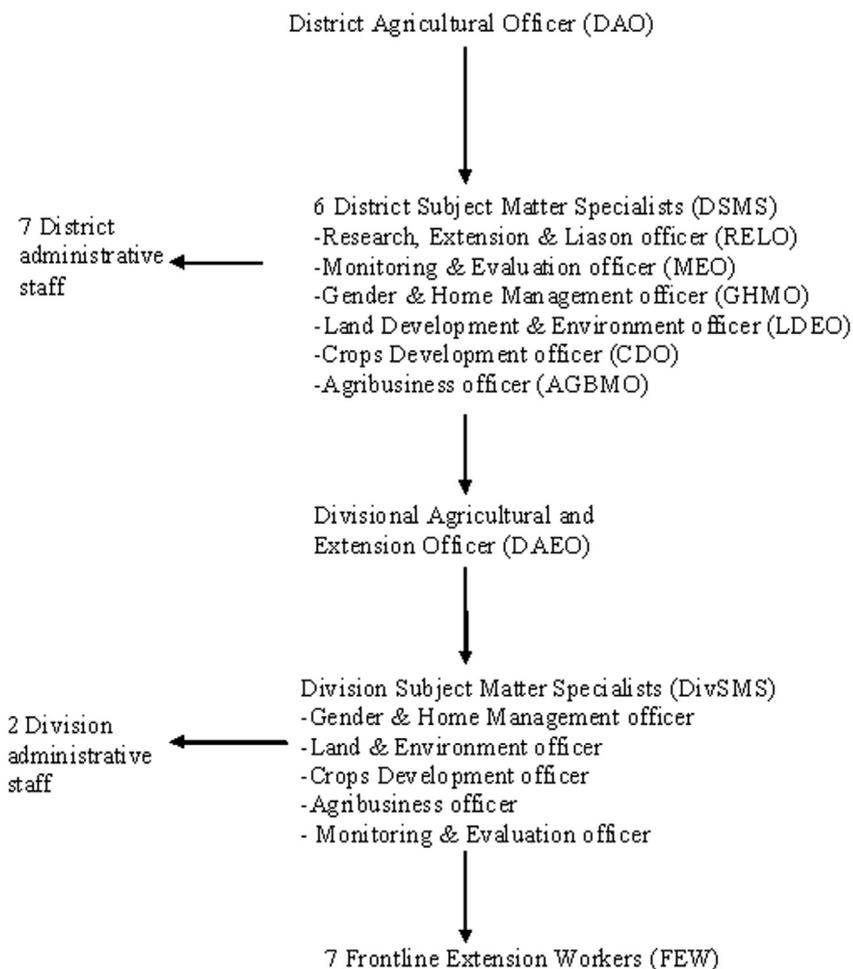
DAC is said to be a place where farmers articulate their issues through their representatives. Where the district MoA can respond directly to

concerns raised, they attempt to do so. More difficult issues are forwarded to the Provincial Agriculture Board (PAB) and, if necessary, to the higher level where concerns raised by farmers are looked at at policy level.

In contrast to DAC, NGOs and input stockists are expected to play a leading role within the

District Agriculture Stakeholders' Forum (DASF), with ministry representatives participating in an ex officio capacity. DASF tries to harmonize activities of all stakeholders in the district, although output buyers are conspicuous by their absence⁵. One non-governmental agency interviewed commented that the formation of

Figure 2. Organizational Structure of MoA Staff in Rachuonyo District.



DASF has greatly improved understanding and interaction between stakeholders in providing better services to farmers. However, there can still be tensions. For example, some NGO extension providers give out materials (e.g seeds, fertilizers, chemicals, and livestock) for free. This leads to high expectations by the community and to confused clients, with farmers more receptive to NGOs than to MoA. Activities organised by MoA may experience lower turn-outs as a result. Incidents of 'hijacking of groups', and competition for groups as development agents strive to out-do each other were also reported.

Looking forward, MoA would like to see DASF coordinate the activities of different partners by promoting joint planning. However, as yet little progress has been made in this direction. According to MoA, NGOs' objectives are set elsewhere in discussion with the relevant donors and DASF discussions have little influence over this.

Interviews with the senior MoA staff indicated that at the start of every year all the agricultural stakeholders in the district meet at the district headquarters to spell out and possibly try to harmonize their activities planned for a whole year. However, MoA staff mentioned the fact that they are not vested with the powers to prioritize activities by different stakeholders in the district. For instance, it is almost impossible to divert an NGO from its intended programmes, due to the fact that NGO funding often comes with predetermined schedules. MoA staff gave a case whereby an NGO had a programme of fixing water tanks to residents of a village and another NGO also had a programme of fixing piped water to the same inhabitants of the village. Both of them went ahead with their programmes despite clear role duplications noticed.

MoA staff observed that objective setting and strategic planning, which is the benchmark for any coordination process, is done

independently by the different organizations working in the district, with MoA not taking any part in the planning process of other stakeholders - and vice versa. This has been a big stumbling block towards harmonization of development efforts. The suggestion of some MoA staff was that, at the start of a feasibility study of an intended project, the ministry and other key development partners ought to be involved.

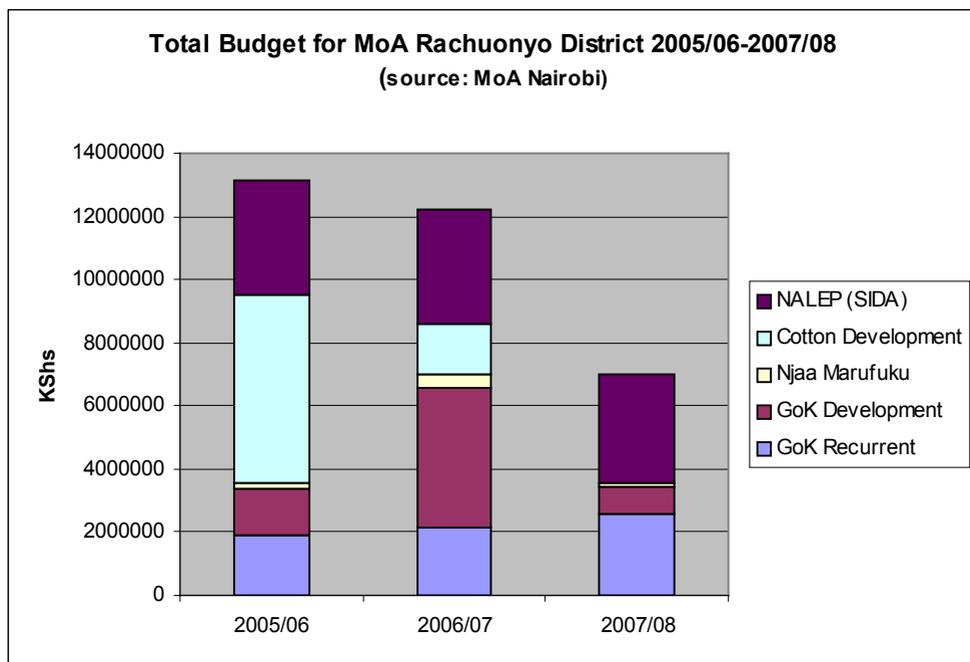
In addition, there is a strong case for the various stakeholders within DASF to produce a joint district agricultural development plan. This would set out the main opportunities and challenges facing agriculture in the district (revisiting the questions addressed in sections 2 and 3 of this report), note current initiatives designed to respond to them and identify gaps that need to be filled. The lack of a strategy to combat striga and the need for greater attention to market development would be obvious examples. Such a plan could greatly assist MoA in prioritising its activities (and shaping its budget) each year. It could also be shown to prospective new development partners considering investment in the district and could guide existing stakeholders when they sought renewed funding from their respective donors.

A measure of how far DASF still has to go to deliver on these worthy objectives is that it is supposed to meet quarterly, but generally only meets twice per year due to a lack of funds to pay for travel allowances and food for members. The costs for the two meetings are met from the NALEP budget, but NALEP wants other stakeholders to pay for the other two. The costs per meeting are estimated at KShs 12,000 (US\$185, or 0.17% of the annual MoA budget – see Figure 3 below).

7. Limitations of MoA

This study was undertaken in the knowledge that MoA labours with limited resources. However, it aimed both to obtain some insight

Figure 3. Total Budget for MoA Rachuonyo District, excluding salary costs



into the impact of resource limitations within a particular district and to assess the scope for enhancing performance through efficiency gains (as opposed to, or in addition to, additional resources).

In addition to MoA's own resources, two donor-funded projects operate within the district:

- The SIDA-funded National Agriculture and Livestock Extension Programme (NALEP) supports extension activities in four "focal areas" (one location per division) each year. Considerable extension effort is concentrated in these focal areas and attempts are made to build the capacity of farmer groups, so that recommendations continue to be implemented after attention has switched to another location at the end of the year in question. A few activities that are not specific to the current focal areas (e.g. lunches and

allowances for two DASF meetings per year) are funded out of the NALEP budget, but most NALEP resources are earmarked for activities within the focal areas alone.

- An IFAD-funded project covering various sectors (e.g. agriculture, fisheries, health, water) operates in West Karachuonyo division. The budget for this project is dedicated entirely to activities in West Karachuonyo and there is little interaction with activities elsewhere in the district.

7.1. Staffing Issues

Information obtained from the District Agriculture Office indicated that MoA has 47 staff in total within the district. Of these, 31 are technical, nine are administrative and just seven are field extension staff (when there are 38 locations in the district). Seven of the technical staff are based at the district headquarters as subject matter specialists while the remainder are

spread across the four divisional offices. Figure 2 below illustrates the organizational structure of MoA within the district.

Our interviews indicated that low numbers of staff, especially frontline extension workers (FEWs) at the location level, affect implementation of programmes. The basic extension unit is a location and each unit is supposed to have at least one field extension officer. Unfortunately, this is not the case. Consequently, NGOs and input stockists interviewed described the coverage of MoA's extension system as being inadequate, in terms of both areas and type of farmers visited. This is considered one of the main causes of poor agricultural performance in the district.

The low level of extension staff was said to be mostly due to retirements, retrenchment and a freeze in government employment within the ministry for a long time⁶. A significant proportion of senior staff at the divisions and locations that we visited are nearing retirement age and will be retiring over the next five years.

From Figure 2 and our visits within Rachuonyo, we note the following inefficiencies in MoA staff utilisation within the district:

- Having 20 divisional SMSs supposedly equipping just seven front-line staff is a big imbalance. Perhaps not surprisingly, therefore, interviews with divisional SMSs revealed a lack of clarity regarding roles and responsibilities. On the one hand, some divisional SMSs apparently duplicate the roles played by their district counterparts. On the other hand, with only seven locations having a dedicated FEW, divisional SMSs have to spend up to three days per week doing frontline extension work. However, unlike FEWs, they do not have responsibility for a specific location and it is almost certain that the current ad hoc arrangements lead to less equal extension coverage than if the

divisional SMSs were formally redeployed as front-line staff⁷.

- The divisional offices also lack the necessary equipment to facilitate smooth operations, whilst office structures are old and often poorly maintained. The office chairs and desks present in most division offices are old and in poor condition, making it uncomfortable for officers to sit on for a whole day. Lack of computers at the divisional offices slows down operations. Most staff are also computer illiterate, so even if computers are to be introduced they will need to undergo basic training. The ministry has instructed all those who are computer illiterate to register for basic training, but expects them to pursue this through their own initiative. Worse still, the divisional offices lack modern communication technologies, like telephone and internet facilities, which makes it hard to communicate effectively with other departments.

Given that there are six district SMSs covering the same specialisms as the divisional SMSs, it is worth asking whether the 20 divisional SMSs wouldn't be better deployed as front-line staff. This would, of course, be an extremely delicate change to manage and would have to be undertaken with the utmost sensitivity. Many SMSs have graduated from being FEWs and could see this not just as a demotion, but as damaging any (slim?) chances that they had of future advancement. At the very least, they would need to be assured that their pay and other benefits were not going to be affected by the change – just their work responsibilities.

Finally, we note that the focal area approach pursued by the NALEP programme makes no attempt to provide even a minimum quality extension service to all rural households – perhaps in recognition of MoA's recent inability to do this. However, one non-governmental

respondent questioned this approach. In their view, targeting resources at a limited area implies a concomitant neglect of other areas during this time, whilst there is very little follow up in the previous focal area once attention is switched elsewhere.

So far we have considered MoA's capacity to provide extension services across the whole district and have noted factors, including both staff shortages and staff imbalances, that lead to uneven coverage. We now consider the performance of individual extension agents, which affects the level of extension coverage within a given location.

One divisional officer interviewed indicated that FEWs are required in their performance contracts to visit 741 individual farmers and 40 farmer groups, to attend 20 barazas and to conduct ten demonstrations and one field day per year. With 360,000 people spread across 38 locations in the district and an assumed average of 4.5 people per household⁸, there are roughly 2100 households in an average location in Rachuonyo. Thus, these targets would allow an FEW to contact around a third of the households in her/his location in any given year, assuming that most of these households were only visited once.

A closer look at the monthly reports submitted by FEWs reveals that these targets are not achieved. According to the officer, the actual number of contacts achieved is approximately 400 farmers. The officer explained that limited resources, sicknesses and lack of motivation at work are some of the reasons for the gaps.

We do not know how the target figures have been arrived at. However, we note that:
5 contacts per day * 4 days/week * 4 weeks/month * 10 months/year = 800 contacts
... which is close to the targets set for FEWs. This is a demanding schedule under the conditions prevailing in Rachuonyo, but serves as a useful

benchmark for the analysis that follows. We note that attainment of this target would require that FEWs were well resourced in their work, as well as highly motivated.

7.2. Financial Constraints

The financial system of MoA is centralized and its structure very hierarchical and bureaucratic. The officers interviewed noted that budgeting and the flow of funds are rather slow, with the district office either receiving funds late and/or being chronically short of funds for operations and maintenance at certain times of the year.

The first problem expressed was on budget preparation. Interviews with senior MoA officials indicated that preparation of the core Ministry budget starts from the divisional level where officers from different departments make up their budget requirements, which are then forwarded to the respective district counterparts (refer to organisational structure in Figure 2). The district departmental officers combine their budgets which then form the overall district budget. The officers noted that when preparing the district budgets, ceilings are usually imposed which limit activities that can be contemplated. The budget is then forwarded to the Provincial Director of Agriculture's office where the district head makes a Powerpoint presentation and defence on the budget. If approved, the same is submitted to Nairobi (MoA headquarters) for funding. Budget cuts were also mentioned as a big problem with officers in charge indicating that it really affects their operations, as activities already planned for have to be forfeited. Ministry officials further raised concern with the late arrival of Authority to Incur Expenditure (AIE) especially during the first quarter of a financial year; this takes 2-3 months after budget submission and approval. This usually results in high inefficiencies during the first quarter.

The MoA in Rachuonyo District receives funds from a number of sources, albeit most through headquarters in Nairobi. Figure 3 shows the total budgetary allocation for the past three financial years⁹.

Figure 3 shows a declining budget envelope in the short term. However, we make the following observations:

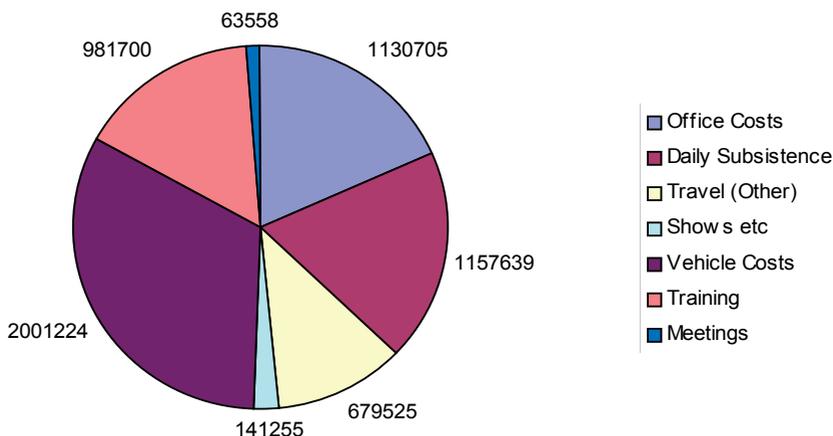
- The 2005/06 budget was enhanced by a large, one-off allocation to promote the revival of cotton production (part of a nationwide effort undertaken by the Ministry). The outcomes of this effort are probably best described as disappointing;
- The 2006/07 budget benefited from a significant, one-off construction grant for buildings;
- The basic recurrent budget from Government of Kenya has been increasing steadily over the past few years. This is shown in more detail in Appendix IV.

During the 2003/04 financial year, the then Ministry of Agriculture was split into three ministries: current Ministry of Agriculture, Ministry of Livestock and Fisheries Development and Ministry of Cooperative Development. In 2007/08 the recurrent budget for MoA in Rachuonyo is almost as large as that allocated to the previous combined ministry in 2002/03. We have not obtained figures for the district budget of the Ministry of Livestock and Fisheries Development. However, comparable figures from selected districts in the north of the country suggest that the recurrent district budget for the Ministry of Agriculture is likely comfortably to exceed that for Veterinary Department, Livestock Production and Fisheries combined [M.Yegon, pers.comm.].

If we add estimated salary costs¹⁰ to the figures above, we find that, for 2007/08, salaries account for around 63% of the total expenditure on MoA in Rachuonyo, compared to recurrent expenditure 33% and development¹¹ (capital)

Figure 4: Breakdown of Recurrent Budget for MoA Rachuonyo 2007/08

MoA Recurrent Budget in Rachuonyo District 2007/08 (KShs)



expenditure just 5%¹². Our assessment is that the recurrent budget could usefully be raised relative to salary payments, to enhance the productivity of MoA staff within the district, whilst the level of development expenditure needs to be raised in order to sustain (and preferably increase) the building and vehicle assets belonging to the ministry.

Meanwhile, Figure 4 provides a breakdown of the total recurrent budget available to the MoA in Rachuonyo in 2007/08. This shows that the major budget items are costs associated with vehicle operation (mainly fuel and routine maintenance), subsistence allowances for staff working in the field and a range of general office operating costs (including utilities and office supplies). That vehicle operation is the single biggest cost item despite the fact that MoA only has two four-wheel vehicles in regular use, plus roughly one motorbike per division, is evidence of the general level of budget constraint that it operates under.

Interestingly, the budget breakdown does not contain any expenditure on inputs, yet the issue of inputs comes out strongly in this study as the main challenge faced by farmers and one where they are looking to MoA for assistance.

We now return to our earlier question of why FEWs rarely reach their performance targets for number of farmer contacts per year. According to our indicative formula, in order to record 800 contacts in a year, FEWs should expect to be in the field for 160 days per year (assuming five contacts per day in the field). From a resource perspective, this requires two things: transportation and lunch (subsistence) allowances.

MoA lunch (subsistence) allowances are KShs 300 per day. If the total budget figure for daily subsistence shown in Figure 4 is divided between the 20 divisional SMSs and seven FEWs, then each of these officers could spend 143 days in the field per year and receive lunch allowance. However, other technical officers are also expected to spend time in the field. If the total

figure is instead divided by the total number of non-administrative staff, then the number of visits to the field per officer per year falls to 96 – well below the 160 required for frontline staff to meet targets.

The situation is further complicated by the fact that NALEP funds are only for use in the four current focal areas. When Government of Kenya funds alone are relied upon, the budget for subsistence allowances is only sufficient for each non-administrative staff member to spend 18 days in the field per year – or for each non-NALEP, non-IFAD location to receive 31 visits per year.

Meanwhile, inadequate transport provision may affect both the number of days spent in the field and the number of contacts achieved during a given day in the field. Through a combination of design and default (insufficient motorbikes for all field staff) the main form of transportation for FEWs is a bicycle. However, these are not provided by the ministry. Instead, FEWs have to use their own bicycles to move around. Worse still, the Ksh 60 per month that they used to be given as bicycle allowance (to cover wear and tear on their bicycles) is no longer paid. Detailed budget data for 2005/06 – 2007/08 show that a total of around KShs 9000 was paid in 2006/07, but none in either of the other years. This issue deserves more investigation than we have so far been able to give it. Two things are clear, however. Firstly, the sums of money involved are tiny when set against a total recurrent budget of KShs 6.2 million in 2007/08. Secondly, the cost in terms of reduced FEW morale and hence reduced productivity (from not paying this allowance) are potentially very large. One extension worker commented, “My organisation doesn’t care about me. Why should I care about it?”

Overall, our assessment is that, despite efforts by the government to increase the recurrent budget to Rachuonyo district MoA, the budget for transportation and allowances remains inadequate for MoA staff in the district to achieve

the performance targets set for them. That said, there are ways that existing funds could be used to achieve better performance. Paying more attention to FEWs' concerns about bicycles is a good example.

7.3. Human Resource Management Issues

In the previous section we presented some data and arguments suggesting that, despite receiving budget allocations from a number of sources and despite the fact that the basic Government of Kenya recurrent budget has been rising in recent years, MoA in Rachuonyo is still resource-constrained. We linked this to the productivity of frontline staff (in terms of extension contacts per year), showing how both limited lunch allowances and limited transportation might be contributing to missed targets.

However, during interviews respondents indicated that financial constraints were only one of the reasons for reduced productivity. The other issues raised, which might be grouped under the heading human resource management issues, are dealt with in this section.

One problem widely identified by all MoA staff as affecting their morale and hence performance is still very much finance related, namely the salary scales and schemes of service offered by the government¹³. The staff interviewed noted low salary offers as really demoralising. However, we also note that complaints on low salary and poor service schemes were voiced primarily by staff at the divisional level. This is because divisional staff, especially diploma holders, find it particularly difficult to gain promotions to district level positions. The constraint here is that the minimum qualification for technical staff at the district level is a Bachelor of Science degree. With the long-term funding squeeze that the Ministry has experienced, it has tended to focus its academic training resources on quick upgrades, especially

the one year training required to upgrade certificate holders to diploma level. By contrast, it has been reluctant to fund three-year degree programmes, with the result that diploma holders have remained stuck in their positions, whilst junior colleagues catch them up. Cases of officers staying in a job group for their entire service time in the ministry were reported. It is easy to see how this contributes to low morale among the affected staff.

A second factor undermining the morale especially of location and division officers is the sense that no one (within MoA, at least) is really interested in their performance. "Does anyone ever notice and appreciate how hard I work?" asked one of the officers. From discussions held with divisional heads, it is apparent that field reports submitted by field staff are read. However, monitoring of field activities seems rather poor, with divisional heads noting that they depend on mutual trust from field extension officers for the reliability of the information contained within their reports. Equally importantly, it seems that neither staff performance nor the quality of their field reports play much role in career advancement, the decisions about which are taken outside the district, with minimal input from those who know or have managed the staff member concerned.

Finally, localization was also reported as a reason for not achieving targets. Most frontline extension staff come from divisions where they work; an advantage of this being that of local knowledge. However, being localized also has disadvantages, as noted by the officers interviewed;

- People develop an attitude of being used to one; hence his/her message is not taken seriously.
- One's performance is influenced a lot by pre-existing relationships with community members, some of which are bad.

- One's farm activities are closely monitored, if performing poorly in own-farm, it becomes hard to convince people to embrace your information and ideas.

Clearly, there are two sides to this debate. This is an issue that could be debated further.

8. Conclusions and Policy Implications

- From the preceding discussions, it can be said that agriculture in the district has been struggling since the late 1980s – early 1990s. All interviews conducted with the sector stakeholders reveal a similar story when the declining trend started to be realized. Decline in the sector's performance was accompanied by a fall in MoA's impact over the same period. By contrast, there was some disagreement about MoA's performance in the last decade, with some stakeholders indicating that attempts have been made to make more efficient use of scarce resources at MoA's disposal and others thinking otherwise.
- The Ministry of Agriculture sees its role first and foremost in terms of extension which mainly revolves around information provision. This is evident from the district service charter, which is dominated by extension activities. Contrary to this perception of priorities by MoA, however, other stakeholders in the district argue that information alone is not enough to get agriculture moving in Rachuonyo.
- Both farmers and private sector representatives (e.g. input stockists) argue that a more pro-active role is required to stimulate development of markets for outputs, inputs and finance, amongst other things. They report a weak linkage between production and output markets, with farmers getting very low prices for their produce, a total lack of some markets (e.g. tomatoes in West Karachuonyo), and presence of exploitative middlemen. The structure is also weak for input markets, where unscrupulous dealers remain in the market and the sale of sub-standard inputs is still prevalent. Absence of micro-finance institutions serving farmers in the region further complicates the situation with farmers not being in a position to improve their production due to limited capital.
- The ministry has developed close working relationships with a number of NGOs working in the district. However, what is currently taking place is collaboration with stakeholders, rather than full coordination, especially in planning and strategy development for the district, as NGO agendas are largely decided elsewhere. Strengthening the District Agriculture Stakeholders' Forum (DASF) would help in this regard.
- Meanwhile, less interaction is reported with private sector agencies. There is need for improved relationships with private sector agents, especially farm input stockists.
- Despite efforts by the government to increase the recurrent budget to Rachuonyo district MoA, there is still need for more resource allocation to the sector. Our assessment is that the budget for transportation and allowances remains inadequate for MoA staff in the district to achieve the performance targets set for them. That said, there are ways that existing funds could be used to achieve better performance.
- Human resources within Rachuonyo MoA are skewed towards divisional SMSs at the expense of front-line staff. This is a result of past promotions and training policies and the long-term freeze on new appointments. Whilst divisional SMSs do cover some front-line extension roles, formal redeployment

of staff to front-line roles (protecting their salaries and other benefits as necessary) should result in an improved service as perceived by farmers.

- Staff motivation is a key thing if efficiency is to be realized in the public sector. Predictable comments were received regarding low salary levels contributing to low morale. On the other side of the coin, low cost changes (e.g. paying more attention to FEWs' concerns about bicycles) could make a useful contribution to raising morale. Moreover, unhelpful centrally-determined policies on promotions, which emphasise qualifications rather than individual staff performance, are as important a contributor to low morale as low salaries. This is an area that MoA headquarters needs to consider.

End Notes

¹ At times, to get out to fish, fishermen have to negotiate their boats through ½-1 km of hyacinth.

² These figures aggregate area planted in both long and short rains.

³ Property rights offer incentives to conserve.

⁴ Efforts to get him during a re-visit to the district were fruitless; so we were not sure whether the programmes are really taking place.

⁵ One cotton company, based in Homa Bay but buying in Rachuonyo at harvest time, is listed as a member of the DASf. No individual private traders participate in DASf.

⁶ Nationally, the Ministry has not employed any new FEWs (certificate and diploma holders) since 1989! There have been a number of intakes of new graduates during this time, but, as one MoA respondent in Rachuonyo explained, graduates have been trained in management and do not expect to work at location level.

⁷ We also note the likelihood that SMS often visit the field with FEWs, i.e. multiplying the

attention given to those areas with their own frontline worker.

⁸ This assumes that the size of the average household has not changed since the 1999 census.

⁹ Funding obtained through the IFAD project is not included in these figures, as no information on this funding was available through MoA in Nairobi. Unlike NALEP and some other donor projects, details of the IFAD project funding are not included within the annual budget document published by the Ministry. Note also that we have not been able to obtain data on actual funds received, if these were different from those budgeted.

¹⁰ These have been estimated based on the job grades of the 47 MoA staff in the district, information on pay ranges for these grades obtained from MoA Nairobi and an additional 15% for pension and other salary-related costs.

¹¹ Government of Kenya budgeting classes all aid expenditure as development expenditure, irrespective of its purpose. However, in our calculations we differentiate according to the purpose of the expenditure. Thus, development expenditure is that used to purchase, construct or overhaul assets (e.g. building, vehicles or public works), i.e. all budget items with a classification beginning with 3 in the official classification system. All other expenditures, i.e. all budget items with a classification beginning with 2 in the official classification system, are classed as recurrent.

¹² In 2006/07 the shares were a somewhat more balanced 46%, 34%, 21%.

¹³ The top ranking officers in the district have basic salary levels in the range Ksh 27,456 - Ksh 37,008 (US\$366-493) per month. These are modest by Kenyan standards, particularly given that the minimum qualification for technical staff at the district level is a Bachelor of Science degree in an agriculture related field. Meanwhile, frontline staff, most of whom are certificate or diploma holders, receive basic salaries in the range Ksh 13,035 - Ksh 17,784 (US\$174-237) per month.

Appendices

Appendix I. List of Respondents Contacted During the Survey

Farmer groups	Individual farmers	Farm input stockists	Output buyers	NGOs	Government bodies
Kosele	Mr. Gordon Osano	OIP agrovet-Oyugis	Mama Atieno	OIP-Oyugis	MoA (5 district, 10 divisional, 2 FEWs)
Pesa ni elo		Gire agrovet-Oyugis	Nyar Kabuoch	ADRA-Gendia	MoLFD (1 district)
Kabondo		Health Africa-Kendu Bay	Market women	AEP- East Karachuonyo	MoCD (2 district)
West Karachuonyo		Kenya Farmers Association-Oyugis		HHCDC-Homa Hills	
				World Vision-West Karachuonyo	
				C-MAD	

Appendix IIa. MoA Production Estimates for Main Food Crops in the District

CROP	Year	Actual Area Planted (ha)		Total Area Planted (ha)	Average yield (units = 90kg bags/ha, except where t/ha is shown).		Total Production (Bag/Tons)
		LR	SR		LR	SR	
Maize	2003	14000	4320	18320	20	15	344800
	2004	7800	5630	13430	20	15	240450
	2005	7800	5600	13400	20	15	240000
	2006	19450	6670	26120	20	20	522400
Sorghum	2003	8040	66.5	8105.5	15	10	121255
	2004	3040	640	3680	7.5	10	29200
	2005	8010	210	8220	15	2.5	120675
	2006	9550	3630	13180	15	15	197700
Finger millet	2003	40	2	42	3	3	126
	2004	16	3	19	3	3	57
	2005	8	6	14	3	3	36
	2006	1420	240	1660	3	3	4980

Beans	2003	4700	810	5510	6	4	31440
	2004	2500	1810	4310	5	5	21550
	2005	4000	1590	5590	6	4	30360
	2006	4640	2550	7190	6	6	43140
Green grams	2003	30	5	35	4	3	135
	2004	22	9	31	3	3	93
	2005	12	2	14	3	2	40
	2006	47	10	57	3	3	171
Cowpeas	2003	70	26	96	3	3	145
	2004	93	55	148	3	3	222
	2005	35	75	3	3	3	225
	2006	35	135	3	3	3	405
Sunflower	2003	15	25	40	0.2T	0.2T	8T
	2004	25	40	65	0.9T	0.9T	58.5T
	2005	10	24	34	0.9T	0.9T	25.5T
	2006	85	40	125	2.5T	2.5T	320T
Ground nuts	2003	2530	110	2640	0.6T	0.6T	1584T
	2004	2200	235	2435	0.6T	0.6T	1461T
	2005	1550	250	1800	.6T	0.4T	1030T
	2006	2505	1540	4505	.6T	0.6T	2430T
Sweet potato	2003	2750	1420	4170	10T	10T	41700T
	2004	3650	2740	6390	10T	10T	63900T
	2005	1500	1460	2960	10T	8T	26680T
	2006	4400	3700	8100	10T	10T	81000T
Kales	2003	140	93	233	18T	18T	4014T
	2004	269	160	429	18T	18T	7722T
	2005	100	190	290	18T	18T	5292T
	2006	370	280	650	18T	18T	11700T
Tomato	2003	150	87	237	18T	18T	4266T
	2004	189	105	294	18T	18T	5292T
	2005	50	160	210	18T	18T	3460T
	2006	180	120	300	18T	18T	5400T
Onions	2003	20	43	63	18T	18T	1134T
	2004	80	32	112	18T	18T	2016T
	2005	20	63	83	18T	18T	1368T
	2006	110	80	190	18T	18T	3420T
Local vegetable	2003	50	48	98	1T	1T	98T
	2004	88.5	49	137.5	1T	1T	137.5T
	2005	50	50	100	1T	1T	100T
	2006	190	125	315	1T	1T	315T

Appendix IIb

Crop Production (tons)		2003	2004	2005	2006
Maize		31032	21641	21600	47016
Sorghum		10913	2628	10861	17793
Finger millet		11	5	3	448
Sweet potato (grain equivalent)		16680	25560	10672	32400
TOTAL		58636	49834	43136	97657
Total (excl sw.pot)		41956	24274	32464	65257
Population	Share	326797	333333	340000	346800
0-15	0.4	130719	133333	136000	138720
16-60	0.5	163399	166667	170000	173400
60+	0.1	32680	33333	34000	34680
	1	326797	333333	340000	346800
Consumption	Ad equiv				
0-15	0.7	12810	13067	13328	13595
16-60	1	22876	23333	23800	24276
60+	0.8	3660	3733	3808	3884
TOTAL		39346	40133	40936	41755
Unadjusted	1	45752	46667	47600	48552
Surplus/deficit (ad equiv)		19290	9700	2200	55902
Surplus/deficit (unadjusted)		12885	3167	-4464	49105
Surplus/deficit, excl sw.pot (ad equiv)		2610	-15860	-8472	23502

Notes: 1) assumes that average adult (person in "unadjusted" calculation) consumes 140kg maize per year;

2) assumes that grain equivalent weight of sweet potato = 0.4

Appendix IIIa: Ministry of Agriculture National Service Charter

- Provision of agricultural extension service.
- Formulation, implementation and monitoring of agricultural legislations, regulations and policies.
- Supporting agricultural research and promoting service delivery.
- Facilitating and representing agricultural state corporations in the government.
- Development, implementation and coordination of programmes in the agriculture sector.
- Regulating and quality control of inputs, produce and products from the agriculture sector.

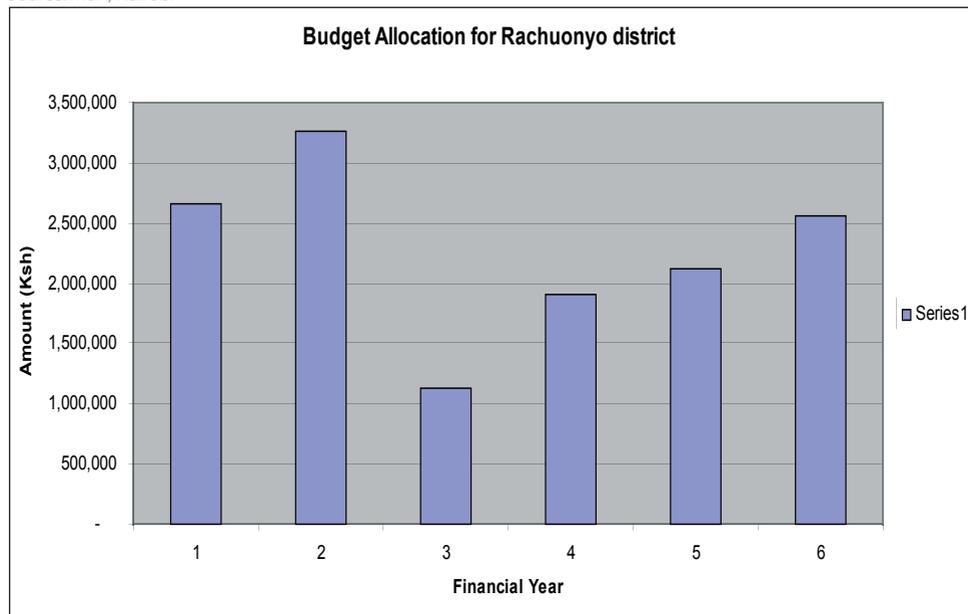
- Management and control of pests and diseases in crops
- Promoting management and conservation of the natural resource base for agriculture.
- Collecting, maintaining and managing information on the agriculture sector.

Appendix IIIb

1. Providing market information to farmers
2. Carrying out farm layouts for soil and water conservation
3. Pegging for river bank Protection
4. Providing information on appropriate land improvement approaches
5. Enterprise analysis for feasible enterprise choice
6. Training and provision of information on value addition and agro-processing
7. Avail information on post harvest management
8. Link farmers and research institutions for acquisition of new technology and feedback
9. Guidance on good crop husbandry practices
10. Project proposal writing to access financial support
11. Soil and leaf sampling for analysis
12. Provision of information on family health and hygiene in liaison with major collaborators and stakeholders
13. Provide information on home resource (time, energy, finances and skills) management
14. Provide information on economic performance of major enterprises in the district
15. Provide compensation rates for crops and forest products grown in the district
16. Preparing enterprise based proposal to access credit
17. Organize Agricultural Stakeholders Forum
18. Facilitating water harvesting by farmers groups
19. Enforcement of Agriculture act
20. Provide information on acquisition of farm inputs
21. Providing essential skills to farmers/stakeholders
22. Creating farmers' groups
23. Providing information to potential investors

Appendix IV. Government of Kenya Recurrent Budget Allocation for MoA in Rachuonyo District, 2002/03-2007/08

Source: MoA, Nairobi



Key: 1- 2002/03; 2-2003/04; 3-2004/05; 4-2005/06; 5-2006/07; 6-2007/08

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