

# **The National Agriculture and Livestock Extension Programme (NALEP) Phase I Impact Assessment**

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**Sida Evaluation 06/31**

**Department for Africa**

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# Executive Summary

The Sida-supported Kenya National Agriculture and Livestock Extension Programme (NALEP) Phase I started in July 2000. After the division of the Ministry, NALEP has been implemented through the Ministry of Agriculture and the Ministry of Livestock and Fisheries Development. This impact assessment was commissioned by Sida, the objective being to assess the impact of the programme of the Phase I activities as a preparation for extending the programme into Phase II. The assessment field work, mainly focused on qualitative case studies, was undertaken in February and March 2006 in four Provinces: Central, Nyanza, Eastern and Western Province.

NALEP has been and still is implemented in very difficult macro and micro environments. Rural poverty has reached almost 60 percent in many rural areas. Over 50 percent of the rural population is classified as food insecure. A high prevalence of HIV/AIDS is resulting in extreme suffering and loss of productive labor together with increasing fragmentation of land holdings. Recurring droughts and the inability of the private sector to replace functions previously performed by government institutions are also contributing factors to rural poverty.

NALEP is a national programme and is operating in no less than 43 Districts, located in 5 Provinces. The NALEP approach is in line with the Kenya Government policy on decentralization as well as on agriculture as documented in the Revitalization of Agriculture (SRA) and the National Agricultural Extension Policy (NEAP). NALEP may be regarded as a process whereby in a selected District, a District Stakeholder Forum selects a Division, where few or no development agencies are active. A Division Stakeholder Forum is established consisting of male and female farmers, project and NGO representatives, commercial representatives, and CBOs. The Forum identifies a Focal Area embracing some 2,000 households (in Phase I only 400). The Division Extension Team, together with Field Extension Workers, carries out a data collection, including poverty mapping and individual farm planning. Relevant opportunities are identified and Common Interest Groups (CIGs) are formed based on farmers' choices. These CIGs are the foundation for NALEP extension service provision. A Focal Area Development Committee is democratically elected and this Committee is provided training and is anticipated to act as coordinator of extension and local development work. This intensive period in a Focal Area lasts for a year with the intension of being transformed into an area of regular group extension interventions, having attracting relevant research, commercial and development collaborators.

NALEP internal documents report that more than 7,000 Common Interest Groups (CIGs) have been initiated during the last three years, having an approximate membership of some 150,000 individual farmers. The monitoring and evaluation (M&E) approach of NALEP has been poorly developed. Base-lines have not been followed up and only limited performance data other than accounting type (money spent on approved activities) has been generated under NALEP. An internal NALEP assessment was carried out simultaneously with the work of the external assessment team. The information made available has been incorporated in this report.

The interviews with CIGs reveals that most groups and members, both men and women, have managed to improve their production and food security considerably. According to the NALEP internal assessment, as many as 80% of the farmers interviewed in the Focal Areas stated that the introduction of the programme has offered new opportunities for men, women and youth in agriculture. More than 70% of the farmers interviewed claimed that the NALEP approach had led them to regard farming as a business rather than a way of surviving.

NALEP considers that farmers' groups, CIGs, formed around a common purpose is the most cost-efficient manner to form sustainable development in the agriculture sector. It is estimated that the success rate of the CIGs, related to their original plans, is somewhere between 30 and 50 percent. The success

rate seems to be related to marketing arrangements and opportunities. A number of CIGs have emerged as growth centres, developing intensive farmer-to-farmer interaction. A considerable number of the CIGs labelled as “failures” continue to function as ordinary extension groups where members and non-members meet with the extension service on an ad-hoc basis as loosely composed groups of farmers rather than as well-structured CIGs. However, several CIGs tend to carry out too many activities after the initial implementation and require a more intensive dialogue with extension staff. This is particularly the case regarding CIGs’ work on value adding of agriculture produce. These activities have met with very limited degree of commercial sustainability.

The assessment interviews indicated that a number of CIGs have managed to mobilize and encourage farming entrepreneurs in the rural areas who have realized that the volunteer group formation based on a commercial enterprise could serve as a strong foundation for economic expansion. Interviews also showed that a considerable number of CIGs have actively incorporated widows and female-headed households as members. A number of these women tend to act as entrepreneurs, being given considerable opportunities to both improve their economic positions by group membership as well as provided opportunities to influence the work of the group members. A number of CIGs have introduced various schemes whereby a number orphans and HIV/AIDS infected are regularly provided with food or farming assistance by the members. A strong sense of solidarity towards the very vulnerable has merged among several CIGs that is reflected in concrete efforts and dialogue with the vulnerable community members. This is particularly emphasized among the more recently formed groups.

However, the HIV/AIDS pandemic is an issue that may have received more attention by NALEP extension service, particularly the field staff. In NALEP, prevention of HIV/AIDS has been incorporated as a highly important topic into the training of farmer groups. But only limited work appears to have been done in direct field extension work with households affected by HIV/AIDS. The major constraints identified by the extension staff are the methods and time needed to reach each individual household for a discussion on possible improvements in livelihood. It seems to be necessary, as reported by the NALEP field staff, to meet each household individually, as the stigma of the disease is still considerable. Field staff interviewed complained that they had not received sufficient training in counselling, an approach they identified as most effective in creating a dialogue with these households and individual.

NALEP has introduced a gender equality clause that at least 30% must be women in all programme activities. The programme has to a considerable extent achieved this qualitative goal. The qualitative aspects of this objective, experienced during assessment interviews, is that female entrepreneurs among different social classes of women has emerged in a considerable number of farmers’ groups. Certain social categories, like widows, emerged during interviews as driving personalities for their groups. NALEP statistics indicate that women comprise some 70 per cent of the members of CIGs based on food crops and small livestock production. Members of CIGs identified a considerable increase in women’s participation in commercial farm enterprises undertaken previously by men only, particularly in marketing and processing.

NALEP has developed a considerable focus on promoting human rights and a process of advocacy. The interviews conducted by the team strongly indicated that a number of the CIGs and the Focal Area Development Committees filled the role of facilitating a dialogue of participation and advocacy not only among members of the groups but also among non-members. The process of identifying needs of the poor and, in the form of a dialogue, actually trying to address these needs and opportunities based on available resources seems to have generated considerable awareness and participation among a number of farmers of different social backgrounds. The fact that many of these initiatives were given attention by Divisions and Districts and, in some cases, attracted other development organisations, were regarded as a major positive change in the relations between the rural population and authorities.

Some of the new technologies and crops introduced successfully through NALEP and collaborators are dairy goats, tissue bananas, grafted mangoes, commercial production of local vegetables and local

poultry, pest-resistant cassava, new varieties of sweet potatoes and improved maize management. A number of CIGs have also introduced table banking and local saving schemes. Several of the crops introduced have been adopted by the poorer segments of the rural population, improving livelihoods, food security and market opportunities. NALEP's focus on facilitating linkages between research institutions and extension has played a major role in the introduction and distribution of several of these crops, such as cassava, tissue banana, and grafted mango, which are all in considerable demand by farmers.

Even though extension staff tended to be uniform in their extension dialogue with the poorest farmers, the staff interviewed showed a sophisticated understanding of food security issues and the need to identify agriculture markets also for the poorer farmers. The vast majority of NALEP-trained extension staff showed considerable pride and knowledge in NALEP approaches and methodologies, emphasizing that their effectiveness had increased dramatically since the introduction of NALEP and that a demand driven extension service was emerging in some of the Focal Areas, verified by the assessment team, even among the poorer segments of the rural communities. The major difficulty of including the most vulnerable in the extension dialogue was that this process was highly energy- and time-consuming for the staff.

The assessment team is under the impression that NALEP impact on exports or other commercial types of production is modest. Private sector service providers are expanding their activities in high potential areas. This is reflected in the work and composition of the District and Division Development Fora established under NALEP guidance. In low potential areas only limited participation by the private sector could be observed. In high potential areas, like Thika District, considerable cooperation between private and public extension and service providers have emerged regarding seed distribution, AI, new machinery and technologies.

The cooperation between NALEP and the large number of other collaborators, such as donor assisted projects and NGOs, varies in content and intensity. While NALEP does not practice free hand-outs to farmers and groups, a number of major projects provide free or highly subsidized inputs and special allowances to farmers and staff. The latter practice tends to hamper the work of NALEP staff and neutralize the ability of the farming communities to mobilize on a self help basis for long term sustainability. In contrast, a number of local and international NGOs are very supportive to NALEP and often viewed by the NALEP staff as complementary, rather than competitive. However, despite the large number of NGOs active in NALEP assisted areas, as many as some 80 percent of farmers interviewed through the internal assessment had never experienced or been provided with material or assistance from any service provider before or after the introduction of NALEP.

The results of the impact assessment strongly suggest that the NALEP approach is highly relevant in addressing the current opportunities and constraints faced by the majority of the Kenyan rural population. The approach constitutes a considerable possibility to successfully address at least some of the most relevant issues for organizing a bottom-up answer to poverty alleviation.

The sustainability of the NALEP approach is based on the impact that the NALEP training and dialogue may have on the farmers, for example in increased profit and improved livelihoods. The internal assessment indicates that more than 70 per cent of farmers interviewed claimed that NALEP had assisted them in developing a surplus and profit from their farms. However, the institutional sustainability is depending on organizational commitment. The relevant Ministries appear strongly committed to the NALEP programme. However, an increasing share of the NALEP budget should be dedicated by the Government of Kenya to prepare for a future phase-out of Sida assistance.

In comparison with other rural development approaches, it appears that NALEP is highly efficient, particularly in a long term perspective. The focus on poverty alleviation on a national scale and the ambition to link farming communities to other public and private rural service providers creates

considerable organizational complexities. However, because of its long term approach and its focus on agriculture expansion and integration in government structures, the NALEP programme provides an important contribution towards economic expansion and poverty alleviation.

The impact assessment has identified certain areas in the current programme where more work needs to be done. It is recommended that:

- In order to work more effectively in poverty alleviation, NALEP should allow more time for a more intensive initial approach in the Focal Areas.
- Staff are further trained in the complexities surrounding rural marketing and improved ways of linking research and rural financial institutions to farmers.
- Attempts should be made by NALEP to improve the process of collaboration with rural service providers and organizations active in rural areas by reinforcing the coordination of all entities working in rural development, using the mandate of the Ministries of Agriculture and Livestock and Fisheries.
- A comprehensive monitoring and evaluation system is designed and implemented. The M&E system should embrace activities and results related to both production and marketing as well as cross-cutting issues related to environment, gender, poverty, empowerment, and knock-on effects.
- The extension staff are provided further training in creating a more constructive dialogue in order to include HIV/AIDS victims and other vulnerable groups in meaningful agriculture development.
- The Government of Kenya increases its funding of NALEP activities in order to develop a constructive phase-out procedure and period for Sida assistance.

# Abbreviations and Accronyms

|         |                                                             |
|---------|-------------------------------------------------------------|
| AFC     | Agricultural Finance Corporation                            |
| AI      | Artificial Insemination                                     |
| AiA     | Appropriation in Aid                                        |
| AS      | Agriculture Secretary                                       |
| ASAL    | Arid and Semi Arid Lands                                    |
| ASP     | Agriculture Support Project                                 |
| ATIRI   | Agricultural Technology and Information Response Initiative |
| BCR     | Benefit Cost Ratio                                          |
| BDS     | Business Development Services                               |
| BIMAS   | Business Initiatives and Management Assistance Services     |
| BLS     | Baseline Survey                                             |
| CBO     | Community-Based Organization                                |
| CBS     | Central Bureau of Statistics                                |
| CHH     | Child Headed Household                                      |
| CIG     | Common Interest Group                                       |
| CSO     | Civil Society Organization                                  |
| DA      | Director of Agriculture                                     |
| DANIDA  | Danish International Development Agency                     |
| DAO     | District Agricultural Officer                               |
| DCT     | District Coordination Team                                  |
| DDC     | District Development Committee                              |
| DFID    | Department for International Development                    |
| DIDC    | District Information Documentation Centre                   |
| DivAO   | Divisional Agricultural Officer                             |
| DivIT   | Divisional Implementation Team                              |
| DivLPO  | Divisional Livestock Production Officer                     |
| DLP     | Director of Livestock Production                            |
| DLPO    | District Livestock Production Officer                       |
| DSHF    | District Stakeholder Forum                                  |
| EAWS    | East African Wildlife Society                               |
| EIA     | Environmental Impact Assessment                             |
| ERD     | External Resource Department                                |
| ERSW&EC | Economic Recovery Strategy for Wealth & Employment Creation |
| FA      | Focal Area                                                  |
| FAA     | Focal Area Approach                                         |
| FADC    | Focal Area Development Committee                            |
| FAN     | Forestry Action network                                     |
| FAO     | Food and Agriculture Organization                           |
| FBO     | Faith Based Organization                                    |
| FBP     | Farm Business Plan                                          |
| FDA     | Focal Development Area (Danida)                             |

|              |                                                                                 |
|--------------|---------------------------------------------------------------------------------|
| FEW          | Frontline Extension Worker                                                      |
| FFS          | Farmer Field School                                                             |
| FHH          | Female Headed Household                                                         |
| FRG          | Farmer Research Group                                                           |
| FSAP         | Farm-Specific Action Plan/Financial Sector Assessment Programme                 |
| GIS          | Geographic Information System                                                   |
| GOK          | Government of Kenya                                                             |
| GTZ          | German Development Cooperation                                                  |
| H: DPIS/A    | Head: Department of Planning Information Service MOA                            |
| H: DPIS/L&FD | Head: Department of Planning Information Service MOLFD                          |
| HH           | Household                                                                       |
| HIV/AIDS     | Human Immuno-Virus/Acquired Immuno-Deficiency Syndrome                          |
| HQ           | Headquarters                                                                    |
| ICRAF        | International Centre for Research in Agroforestry/World Agroforestry Centre     |
| ICT          | Information (and) Communication Technologies                                    |
| IFAD         | International Fund for Agricultural Development                                 |
| ILRI         | International Livestock Research Institute                                      |
| ITK          | Indigenous Technical Knowledge                                                  |
| JICA         | Japanese International Cooperation Agency                                       |
| KAP          | Kitui Agricultural Project                                                      |
| KAPP         | Kenya Agricultural Productivity Programme                                       |
| KARI         | Kenya Agricultural Research Institute                                           |
| KENFAP       | Kenya National Federation of Agricultural Producers                             |
| KePIM        | Kenya Participatory Impact Monitoring                                           |
| KES/KSh      | Kenya Shilling                                                                  |
| KIRDI        | Kenya Industrial Research Institute                                             |
| K-REP        | Kenya Rural Enterprises Programme                                               |
| KWAP         | Kwale Agricultural Project                                                      |
| LA           | Local Authority                                                                 |
| LATF         | Local Authority Transfer Fund                                                   |
| LFA          | Logical Framework Analysis                                                      |
| M&E          | Monitoring and Evaluation                                                       |
| MAP          | Makueni Agricultural Project                                                    |
| MEFAN        | Mt. Elgon Forest Advocacy Network                                               |
| MEICDP       | Mt. Elgon Integrated Community Development Project                              |
| MFI          | Micro Finance Institution                                                       |
| MOA          | Ministry of Agriculture                                                         |
| MOH          | Ministry of Health                                                              |
| MOLFD        | Ministry of Livestock and Fisheries Development                                 |
| NACADA       | National Advisory Council Against Drug-abuse & Alcoholism                       |
| NACC         | National Aids Control Council                                                   |
| NAEP         | National Agricultural Extension Policy                                          |
| NALEP IF     | National Agriculture and Livestock Extension Programme Implementation Framework |
| NALEP        | National Agriculture and Livestock Extension Programme                          |

|         |                                                        |
|---------|--------------------------------------------------------|
| NARC    | National Rainbow Coalition                             |
| NCC     | National Council of Churches                           |
| NEMA    | National Environment Management Authority              |
| NESC    | National Economic and Social Council                   |
| NGO     | Non-Governmental Organization                          |
| NSWCP   | National Soil and Water Conservation Programme         |
| PA      | Programme Advisor                                      |
| PCT     | Provincial Coordination Team                           |
| PCU     | Programme Coordinating Unit                            |
| PDA     | Provincial Agricultural Officer                        |
| PDLP    | Provincial Director of Livestock Production            |
| PES     | Promotion of Extension Services                        |
| PIC     | Project Implementation Committee                       |
| PM&E    | Participatory Monitoring and Evaluation                |
| PPA     | Participatory Poverty Appraisal                        |
| PRSP    | Poverty Reduction Strategy Paper                       |
| PS      | Permanent Secretary                                    |
| PS/A    | Permanent Secretary Agriculture                        |
| PS/L&FD | Permanent Secretary Livestock & Fisheries Development  |
| PS/T    | Permanent Secretary Treasury                           |
| PSC     | Programme Steering Committee                           |
| PSDA    | Promotion of Private Sector Development in Agriculture |
| PSHF    | Provincial Stakeholder Forum                           |
| PSMS    | Provincial Subject Matter Specialist                   |
| R&D     | Research and Development                               |
| RELMA   | Regional Land Management Unit                          |
| RPK     | Resource Project Kenya                                 |
| SACCO   | Savings and Credit Cooperative Organization            |
| SCC     | Swedish Cooperative Centre                             |
| SDD     | Senior Deputy Director                                 |
| SFAA    | Shifting Focal Area Approach                           |
| Sida    | Swedish International Development Cooperation Agency   |
| SMS     | Subject Matter Specialist                              |
| SNCDP   | South Nyanza Community Development Project             |
| SoE     | Statement of Expenditure                               |
| SPFS    | Special Programme on Food Security                     |
| SRA     | Strategy for Revitalizing Agriculture                  |
| STD     | Sexually Transmitted Diseases                          |
| STE     | Short Term Expert                                      |
| TC      | Technical Committee                                    |
| TOT     | Training of Trainers                                   |
| TTAP    | Taita Taveta Agricultural Project                      |
| UNDP    | United Nations Development Programme                   |
| USAID   | United States Agency for International Development     |

# Introduction

The Sida-supported National Agriculture and Livestock Extension Programme (NALEP) Phase I started in July 2000. Initially implemented through the Ministry of Agriculture and Rural Development (MOARD), NALEP, after the division of the Ministry, has been implemented through the Ministry of Agriculture and the Ministry of Livestock and Fisheries Development.

Discussions concerning a second phase of NALEP were restricted by the lack of a comprehensive impact assessment of Phase I. Consequently, an impact assessment was commissioned by Sida. The objective of the study is to assess the impact the programme has had on the rural population covered in Phase I and to what extent it has contributed to the achievements of its purpose.

This Impact Assessment describes the background and macro-economic context of the project within Kenya; outlines the objectives and activities of the NALEP; summarises the methodology utilised by the assessment team in undertaking the assignment; identifies and highlights specific impacts achieved by the programme with respect to the key issues identified in the Terms of Reference; and, finally, makes concrete, actionable recommendations with respect to the design of a second phase of NALEP.

## 1 Background/Macro Economic Context

The rural economy is critical to Kenya's overall development. Two thirds of the population live in the rural areas and are engaged in agriculture or non-farm activities. The agricultural sector plays a significant role as the backbone of the economy and the provider of a livelihood for the majority of Kenya's poor, providing about 80% of rural employment. More than 50% of those living under the poverty line are small-scale/subsistence farmers and pastoralists.

Agriculture directly contributes to 26% of the GDP and indirectly to a further 27% through linkages with manufacturing, distribution and other service-related sectors. Small-scale farmers (in the Kenyan context <10 hectares), primarily those living in high potential areas, produce over 75% of the total agricultural production and 70% of marketed production. In periods when drought is not a factor, the bulk of national food requirements have traditionally been produced. However, there are emerging chronic deficits of maize, wheat, rice, sugar and edible oils.

The rural economy has experienced a steep decline in performance in recent years and as a result rural poverty has increased from around 50% in 1992 to almost 60% in 2000. The declining productivity of this sector has resulted in a little over half of the population being classified as food insecure. Included among the causes of declining agricultural productivity are:

- Inadequate access to agricultural credit,
- High cost of inputs and lack of technical knowledge for their optimal application
- Weak research-extension linkages resulting in a lack of technical innovation in agriculture
- Inability of private sector institutions to replace functions previously performed by government and parastatals after liberalization, related to this the lack of alternatives offered by the cooperative sector
- Increasing fragmentation of land holdings, decreasing size of land holdings and environmental degradation due to population growth

- High prevalence of HIV/AIDS resulting in loss of productive adult labor, overload on this age group in terms of caring for large numbers of orphans and farms left to be run by children

There are significant ties between the rural and urban poor, with extended or nuclear families often adopting a strategy by which some household members remain on the land to produce food or care for young children, while others pursue income-earning opportunities in the urban areas. This has led to a phenomenon whereby the majority of women live in rural areas and women constitute the majority of poor subsistence farmers. The female-headed households are particularly poor and amongst the most vulnerable. Their lack of land-, property- and inheritance rights in the widely-practiced customary laws in various parts of Kenya further contribute to the marginalization of women.

The HIV/AIDS pandemic has reached a scale in some parts of Kenya where it is no longer a health problem, but a serious development problem. It puts a strain on already struggling individuals and households in terms of resources and energy, and results in a labor shortage at farm-level. Women, in their traditional role as health care resources, are overburdened with long term care for the terminally ill and then are left to care for orphans. Children-headed households are not a promising starting point for technological and commercial development in agriculture.

As can be seen by the overview of factors affecting agricultural productivity, many of them lie outside of the scope of agricultural development policy and a traditional approach to agricultural extension.

## **1.1 Revitalization of the Agricultural Sector**

The Government, responding to the deteriorating macroeconomic situation, launched the strategy for revitalizing agriculture (SRA) in March 2004 as a national policy for steering sector development up to 2014. The overall objective of the strategy is to raise household incomes, create employment and ensure food and nutrition security. The SRA aims to reverse the declining trend in agricultural productivity by introducing new approaches, especially by empowering farmers through farmer organizations which will pool them together so they can benefit from economies of scale in accessing inputs, services and output markets, promotion of value addition and agro-processing and provision of financial services.

Much of this strategy builds upon the National Agricultural Extension Policy (NAEP) upon which NALEP, in turn, is based. The NALEP approach of mobilizing Common Interest Groups (CIGs) among farmers and encouraging value addition and processing activities is completely in line with overall government policy for the agricultural sector.

## **1.2 The Role of Agricultural Extension**

Agricultural development policy in Kenya views a well functioning public and private sector operated agricultural extension service to be among the critical inputs in achieving its goal of the transformation of semi-subsistence farming into modern and commercial farming units necessary for the attainment of food security, improved incomes and a reduction in poverty. Ministry policy is, therefore, to ensure that agricultural extension services are adequately funded, well coordinated and regulated. Effective linkages between extension service providers and other stakeholders involved in technology development and provision of facilitating factors are viewed as essential.

The NAEP has adopted a sector-wide approach to provision of extension services. The policy is designed to enable extension services to realize their vision to enable “Kenyan agricultural extension clientele to demand and access appropriate quality extension services from the best providers and attain higher productivity, increased incomes and improved standard of living by 2015”.

Extension services are provided mainly by the public sector (central and local Governments, parastatals, research and training institutions) with a small but increasing proportion coming from private and civil

society sector operators (companies, NGOs, Faith-Based Organisations, cooperatives and CBOs). So far, although NALEP has been able to co-opt many of the private and civil society extension providers into field level cooperation through its “stakeholder approach”, there has been little progress achieved in regulating private sector extension activities or streamlining those provided by different government institutions outside of the ministries involved in NALEP.

In general the role of the extension service in agricultural development in Kenya is threefold:

- To enhance farmer, staff and stakeholder knowledge and skills
- To support the establishment of forums and institutions that promote participation of private service providers in the agricultural sector
- To promote and strengthen farmers institutions

## **2 Objectives and Activities of NALEP**

NALEP has always had a two pronged goal: to promote the socio-economic development of the agricultural sector (in its broadest sense including livestock, forestry and processing activities based on agricultural raw materials); while at the same time contributing towards the national priority of poverty alleviation.

Goal formulation has been evolving over time, but this ambition to promote growth and poverty alleviation has been with the programme since before its inception, and can be said to be an inheritance of the National Soil and Water Conservation Programme (NSWCP).

A major shift in the formulation of objectives and the design of activities can be seen in the NALEP documentation after 2003. The experiences of the first years of implementation led to a redesign of the programme which was called Phase II. In spite of the fact that the Sida-financed NALEP activities for “Phase II” have not yet been approved, in practice the Phase II activities are already under implementation. The Assessment Team retains its focus on what is administratively referred to as Phase I for the Sida financed component: that is, implementation activities during the years 2000–2005. This is a sufficiently long period for a meaningful assessment of activities to take place.

The fact that the working methodology has been adapted to lessons learned during these five years points to a responsive and well-informed programme leadership. This is the case in spite of the lack of both formal monitoring indicators and a system which can make information easily accessible to outside observers such as the financing institution. The fact that Phase II methodology has actually been implemented before the formal approval of an administrative Phase II shows a strong commitment to programme effectiveness and a degree of ownership on the part of the two Ministries involved, which is admirable in a donor funded programme.

### **2.1 A Brief History of NALEP**

NALEP is a dynamic and evolving agricultural development and poverty alleviation programme which resulted from experiences accumulated in the implementation of the NSWCP supported by Sida from 1974 to 2000, at which stage it was replaced by NALEP. NSWCP was a land husbandry programme which reached over 1.5 million small farmers over the years and was widely perceived to be successful in leading to a considerable decrease of soil erosion and increased productivity in agriculture. NSWCP pioneered the idea (in the 1970’s) that soil erosion was not just an engineering concern, or one of

geographers, but that erosion control was an integral part of farm management and improving agricultural productivity.

During its implementation this nationwide soil conservation programme was expanded to include a community or small catchment area based participatory planning component. This was done by adapting PRA methods for use in soil conservation activities. The NSWCP moved from catchment to catchment, expecting the regular extension service to come in and follow up on its initial planning work. This did not function for a number of reasons, the most important being the narrow focus of soil and water conservation activities in relation to the problems of farm productivity and the relatively high level of funding and training given to the Soil and Water Conservation officers in relation to the level of the regular extension officers.

The success of the soil and water conservation extension agents created an effective 'elite' within the regular extension service. The extension service as such was the subject of much discussion, especially among donors frustrated with the limited success of funding programmes to improve extension services, and generally perceived to be inefficient and ineffective.

As NSWCP existed as proof that extension could be a useful tool for solving some of the problems of the agricultural sector; it was decided to formulate a new policy for agricultural extension (NAEP) which would take the elements leading to success in the NSWCP and attempt to transfer them to the extension service as a whole.

In 2000 Sida decided to finance a programme of implementation of this overall approach to agricultural extension under the NALEP design. It was not without some institutional impediments and lags, however, to turn the old NSWCP success stories into a successful agricultural extension service.

Some observers lament the fact that NALEP was created out of the old and on-going NSWCP. It was never allowed to "start afresh" and was burdened with the staff and management procedures of the old programme. While it is true that there was a certain amount of resistance from the old "elite" of the soil and water conservation extension agents, and some difficulties in imbuing the extension staff with an enthusiasm for participatory extension methods (as these inevitably mean more work for the individual), the benefits of a long institutional presence in the Ministry and traditions and recognition seem to have outweighed these initial difficulties in the long run.

The over 30 year Sida presence in a Ministry with a single activity (although agricultural extension has taken many forms since 1974) cannot be viewed as anything but a strength. It shows a level of commitment to reaching smallholders with services and attention that is concomitant with a serious intention to be effective in the battle against poverty.

This is not to say that the transformation process from NSWCP to what NALEP is today was an easy one. The NSWCP extension agents had the benefit of being given a limited and focused task, to ensure that farmers implemented soil conservation measures on their land. The agents were well trained and equipped, and convinced that these measures would lead to immediate and lasting improvements in farming.

NALEP needed specialists from many different areas, and those specialists, then, were faced with the somewhat contradictory task of promoting a general approach to improving farm incomes and to seeing the land resource as part of a greater system of rural livelihoods. It is not to be wondered that there was a certain amount of searching done in the initial years of NALEP for the effective methodologies both in how to train staff and how to reach the farmer.

The first major change that was effected was the transfer of the NALEP management on the ground from the old "elite" soil and water conservation officers to the District and Division Agricultural and Livestock Officers. It is a measure of the institutional strength of the Ministry that the NSWCP officers

were integrated into the technical departments of the Ministry to manage NALEP and that many officers in the regular Ministry department worked to make NALEP function without having specific instructions or incentives to do so. With the transition to NALEP it was inevitable that the specific activities around soil and water conservation suffered, and yet these managers kept up their efforts and integrated their activities into the new and wider approach.

The new programme emphasized its new systems approach to diagnosing problems at farm level with massive efforts to ensure that all 400 or so farmers in the focal areas were equipped with an individual farm action plan (FSAP). It also emphasized the role of the extension service as a facilitator, connecting the farmer with private sector services rather than managing government handouts.

The focus was on a demand-driven and participatory delivery of extension services in a transparent and accountable manner. The farm level plans were drawn up as a joint effort between the extension agents and the farmers, while the transparency and accountability was promoted through a decentralized activity planning and budgeting process.

This evolved over the first three years into the current approach which is dominated by a focus on empowerment, that farmers and their organizations are strengthened to demand public services where appropriate and negotiate access to private sector services from a position of strength. New farmer and community mobilization methodologies seek to be more responsive to poverty and vulnerable group needs while maintaining the focus to deliver advisory services of a high technical quality.

This bottom-up planning and implementation process is very much in line with current political trends in Kenya towards devolution of power and a greater role for the private sector. It is also an important element in incorporating the Human Rights approach to planning into the programme.

The so-called “stakeholder approach” now in place allows the extension service to tap a wide variety of groups in society who can help in the process of farmer and community mobilization and service delivery. This makes the extension service potentially cost-effective and sustainable as a mechanism through which to channel poverty alleviation initiatives.

## **2.2 NALEP Activities**

NALEP implements activities in four components: (1) Planning, Monitoring and Evaluation; (2) Training; (3) Collaboration and Research and (4) Gender and Poverty Focus. Originally, two research components implemented by KARI and ICRAF respectively, were part of the NALEP programme.

These components were later moved from the NALEP programme to separate funding lines within Sida.

The main outputs deal with support to what is referred to as the institutional setting, extension approaches, technical packages, collaboration and extension facilitation factors and cross-cutting issues. The activities and achievements in terms of outputs are analyzed in some detail in the annual reporting format of the programme. A very detailed and informative budget follow up is also available.

NALEP may be regarded as a process where the four components are closely interlinked. In a selected District, a District Stakeholder Forum selects a Division, where few or no development agencies are active. A Division Stakeholder Forum is established consisting of farmers, project and NGO representatives (if any), commercial representatives, and CBOs. The Forum identifies an area Focal Area embracing some 2,000 households (in phase I only 400), based on a number of criteria. The Division Extension Team, together with Field Extension Workers carries out a thorough data collection, including poverty mapping and individual farm planning. Relevant options and opportunities are identified and groups are formed based on farmers’ choice. These are the Common Interest Groups, the foundation for NALEP extension service provision. A Focal Area Development Committee is democratically elected and this Committee is provided with training and is expected to act as coordinator of extension

and local development work. This intensive period in a Focal Area lasts for a year and is then transformed into an area of regular group extension interventions, having attracting research, commercial and development collaborators.

It should be emphasized that NALEP is a national programme under the Ministry of Agriculture and the Ministry of Livestock and Fisheries Development. The programme is operating in no less than 43 Districts located in 5 Provinces. NALEP documentation reports that more than 7,000 Common Interest Groups have been initiated during the last three years having an approximate total membership of some 150,000 individual farmers.

Parts of the programme are funded by Sida but there are other parts which are funded directly with government funds. Sida funds are used for training, research activities and demonstrations, consultancy inputs (including one long term advisor) and logistics including office supplies. The Sida funded programme activities are viewed as privileged more from the point of view of the reliability of their funding than the absolute level, as promised government appropriations can be adjusted during the budget year and it is not uncommon for the extension service to receive less than was originally budgeted for, under the government scheme.

The Assessment Team paid special attention to the activities detailed below in terms of their impact on the identified target groups.

### **2.2.1 Farmer Mobilization/Group Formation**

One of the most notable characteristics of the NALEP programme is its emphasis on the mobilization of farmers and on group formation.

NALEP offers intensive and thorough training to extension officers in how to identify and measure poverty, how to reach vulnerable groups, and how to promote group formation. While many extension services throughout the world have a strong focus on agricultural productivity, NALEP distinguishes itself by aiming very ambitiously to be a mobiliser of all farmers' categories, strongly emphasizing the inclusion of the poor and more vulnerable farmers, acting as an instrument for reaching farming communities with poverty alleviation initiatives. This ability to reach and mobilize is recognized by other sectors in Kenya where recently initiatives were being taken by the National Environment Management Agency (NEMA) to use NALEP methodologies and parts of the extension service working with the NALEP programme to reach farmers with environmental management initiatives.

While NALEP does not always succeed in transferring its ambitious package of technical innovation to all members of a target group, or maintain momentum in keeping alive all the groups which are formed as a result of mobilisation, there is little else in the rural areas of Kenya which functions at the grassroots level and is available on such a national scale. Individual NGOs and CBOs may sometimes claim similar rates of success, but then only in a limited geographical area and without the constraints of limited government funding.

### **2.2.2 Technical Extension Packages**

The Assessment Team has interviewed farmers extensively on the types of technical information and extension packages that have been made available to them by NALEP staff. It appears that all of the available packages are made known to farmers and that there is a healthy interchange between farmers and extension staff on the subject of which packages to adopt.

The most notable successes include the introduction of dairy goats, tissue bananas, grafted mangoes and local vegetables. Of particular importance has been the successful introduction of pest resistant cassava and improved sweet potato varieties that have proven to be important livelihood assets for poorer households both as food crops and as commercial commodities. While maize production is still a primary demanded technology, many extension agents see the need to encourage farmers to produce

more intensive crops on the increasingly smaller plots available to them.

The extension agents interviewed are aware of the risk averse nature of the small farmer and try to combine a respect for the tradition of growing maize for home consumption with an appreciation of the economies of producing more valuable crops for sale and then purchasing maize for own consumption. This said, there is still a tendency on the part of the extension staff at division level and the Field Extension Workers (FEW) tend to provide almost identical advice to poorer farmers in one area. Staff may not have sufficient knowledge and understanding as to the situation of the poor, how it differs from that of the more well-off and of how to promote adequate crops and activities to develop food security and pro-poor market opportunities.

Much of the success of extension advice depends on two factors which, by design, NALEP has limited influence over: the quality of local marketing infrastructure and the availability of agricultural credit. However, the field extension staff tend to have a considerable understanding of potential marketing opportunities and constraints in a given locality and to incorporate marketing considerations in their facilitation work with farmers as part of their NALEP extension approach.

### **2.2.3 Stakeholder Mobilization**

Another striking innovation of the NALEP programme is what is referred to as the “stakeholder approach”. This bringing together of different actors involved with the local farming community has the potential for making NALEP a most sustainable and highly relevant agricultural extension service.

The Assessment Team looked at the capacity of NALEP to engage with other stakeholders in common efforts to promote the development of smallholder agriculture. While the ability of NALEP to function as a lead institution in this process varied between districts, it is very important that some coordination of resources take place to avoid overlap and duplication and increase the effect of those resources invested in the smallholder sector.

### **2.2.4 Monitoring and Evaluation**

NALEP has been criticized in several reviews for its lack of a systematic monitoring of activities. There have been a number of efforts recently to correct this deficiency although it is not in the scope of the current assignment to comment upon these future developments. What is unfortunate is that there are a number of lessons to be learned about promoting the successful aspects of NALEP which may not reach an outside audience because of the lack of systematic information.

One important opportunity that has not been followed up on is the updating of the detailed baseline information gathered when the original Focal Areas were identified. In addition to general information about the Focal Area, individual farm plans were drawn up on a massive scale which could have served as a baseline for detailed studies on impact. Unfortunately, the plans were not used extensively in the regular extension work or as a source of baseline data.

District and Division level extension teams often reported that the workload during the compilation of individual farm action plans was hampering the implementation of other district and divisional activities. At the same time, the vast majority of extension workers interviewed reported that the detailed reporting and planning introduced by NALEP actually made it possible to dramatically increase their work output.

Many of the extension officers at district and divisional level expressed concern about the lack of performance and monitoring data available to them and, while many expressed the belief that this data existed at some point higher up in the system, the Assessment Team has been unable to locate that point.

Still, it must be pointed out that a number of internal assessments have been carried out throughout the years and that the information on the perceptions of farmers and field staff generated by these studies

has been important in refining the NALEP approach. Only limited performance data other than accounting type (i.e. money spent on approved activities) has been generated under NALEP. However, the financial monitoring and control structure implemented by NALEP shows an exceptionally high standard

## **3 Methodology**

### **3.1 Approach**

To measure and understand programme impact among such varied organisations, categories and individuals to which NALEP has worked with and provided assistance and training to requires a relatively sophisticated understanding of the concept of impact itself. The Assessment Team has approached impact as a number of processes that contains both qualitative and quantitative aspects of change or lack of change. Impact has been related to perceived and observed changes in relation to the national context and relevant national macro policies.

The national context is comprised of a number of both localized and national political, economic and social processes that have influenced the programme and its opportunities. The impact and results have been related, analysed and understood as parts of these contextual frames. Examples of such processes have been declining prices at the export market for key commercial crops and changes in infrastructure and domestic market opportunities for agricultural produce because of high costs of fuel. Other important variables are the documented increases in rural poverty, HIV/AIDS, the ongoing processes of land fragmentation, and the prolonged periods of drought that most farmers in Kenya have experienced.

### **3.2 Specific Methodology**

The NALEP concept is built on participation, partnership, collaboration and demand driven extension processes, instead of a conventional blueprint approach. The impact assessment has subsequently collected and analysed both statistical data as well as perceived knowledge and understanding on programme impact among highly diversified target groups and beneficiaries, comprised of various farmers' categories, institutions and organisations like the extension service and other staff within the Ministry of Agriculture and the Ministry of Livestock and Fisheries Development, marketing and supply companies, NGOs and development projects active in NALEP supported areas, relevant agriculture research institutions and other public and private rural service and development providers. Interviews with Sida staff in Stockholm and Nairobi have provided important background and input for the assessment.

The Impact Assessment Team has collected information on issues related to impact on farm level relate to documented and perceived changes, opportunities and constraints in relation to NALEP supported activities, spontaneous changes and possible knock-on effects concerning farm incomes, risks, livelihood, and changes in agricultural practice. Through a dialogue with programme and ministerial staff the Impact Assessment Team has provided a foundation for the collection of data and information from the various stakeholders. The approach and methodology applied in the assessment has allowed relevant representatives from a number of organisations and institutions to voice their opinions regarding these variables. We consider it important that representatives from key rural service providing organisations and farmers have been encouraged to voice their views on change and programme impact both among the staff and farmers. This is particularly important as Kenya embraces a considerable diversity of environmental characteristics and, consequently, a considerable diversity in agricultural and livestock production, processing and marketing opportunities.

### 3.3 Use of Available Documentation

NALEP's own long and short term objectives, as documented in the Logical Framework Analysis, the Monitoring and Evaluation system and other key programme documents, have provided the immediate context in understanding the programme impact among the relevant target groups and institutions. A number of internally commissioned monitoring and evaluation documents, often in the form of case-studies, have also been utilised in the impact assessment. The Impact Assessment Team has in some cases been able to validate the content of these studies.

Audit reports, internal budgets, District and Division agriculture statistics have also been of considerable value in assessing NALEP impact. A highly ambitious Internal Impact Assessment was initiated parallel to this external Impact Assessment. The national internal assessment is based on comprehensive survey questionnaires that are to be compiled and analysed in the near future. This data will provide highly relevant complementary data to the external Impact Assessment.

### 3.4 Data Collection

The foremost beneficiaries of NALEP and a major target of the impact assessment is the farmer. Both male and female farmers are a highly diverse group of individuals and households with different access to money, economic means and livelihood, opportunities to influence and control their economic, social and political environment, technical knowledge, and access to information and external assistance. These diversities and differences are not static but parts of a number of complex processes taking place both within localities and farming communities. Economic and social mobility among individuals and households has always been a dominant feature of the dynamics of the Kenya society, and the farming communities are no exception.

NALEP has during its first phase, 2000–2005, implemented programme activities in some 43 districts in 5 Provinces. This External Impact Assessment, together with the NALEP staff, selected 4 Provinces for field data collection. These Provinces are: Central, Nyanza, Eastern and Western Provinces. A considerable number of Districts and Divisions have been visited in these four provinces. The Districts, the Divisions and the NALEP assisted farmers' groups and individual farmers have been selected for interviews and dialogue both in random as well as in consultation with NALEP staff based on a number of criteria such as poverty and access to resources, intensity of interventions by NALEP collaborators, location and distances to service and market opportunities, agro-specialisation, duration of NALEP facilitated interventions, perceived quality of interventions, and accessibility in order to provide robust sampling procedures for the Impact Assessment.

A considerable variety of field-work approaches and techniques have been applied in data collection from male and female farmers of different social and economic categories. These approaches have been applied with considerable care and adjusted to the specific situations prevailing during the interactions between the team and those farmers and/or agriculture extension staff participating in the numerous field consultations.

The field consultations consisted of interviews with individual male and female farmers based both on specific topics and rather general issues. The team has also applied focused group discussions, quite often including different approaches to SWOT analysis, encouraging a dialogue between different informal and formal farmers' groups, based on their own categorisation of relevant belonging and divisions within their own farming communities. Results of these discussions have later been physically observed and triangulated with other individuals and groups as well as relevant extension staff.

Another technique applied in the field-work is the participatory force-fields approach focused on farmers' relations to various institutions and organisations. The force-field analysis is particularly relevant in

encouraging farmers, representing different social and economic categories, to identify and rank their understanding of the importance of specific organisations for their livelihood, poverty alleviation, information on agriculture practice, market opportunities, health, access to finance and development resources, etc. Adjusted participatory rural appraisal approaches have also been applied in the impact assessment. These have focused on gender and poverty related social and economic changes and their perceived relation to programme interventions. The participatory rural appraisals have also focused on agriculture changes, local entrepreneurship, market opportunities and food security. The interviews and the participatory consultations have been followed up by triangulations and direct observations by the Impact Assessment Team.

## **4 Assessment of Impact**

### **4.1 Breadth of Impact**

The Impact Assessment Team identified impact at a variety of different levels indicating that NALEP has succeeded in achieving impact over a broad range of stakeholders. This breadth of impact can be summarised as follows:

- Internal impact – the impact that NALEP has had on the agricultural extension service and individual staff members
- Farmer impact on an individual level – the impact that NALEP activities have had on individual farms and their management
- Farmer impact on a group level – the impact that NALEP has had on farmers through the formation of groups; the Focal Area Development Committees (FADCs) the Common Interest Groups (CIGs) and the various Stakeholder Fora at divisional, district and provincial levels,
- Impact on Cross-cutting issues – the impact that NALEP has outside of the direct impact on agricultural productivity and poverty alleviation among smallholder farmers in addressing the issues of gender, human rights and environment
- Impact on the Agricultural Sector – this has mainly to do with the impact of improvements in the extension service as such and its links to improved agricultural productivity

### **4.2 Specific Impact**

The terms of reference for the impact assessment are explicit in their identification of the issues to be addressed when assessing impact. To ensure that each issue was covered, each of the specific issues identified in the ToRs are discussed below. A broader analysis of the overall impact is then made in Section 5.

#### **4.2.1 Food security and farm income**

One of the interesting challenges of NALEP is that of having a direct impact on food security and farm income. In the absence of monitoring indicators it was difficult to confirm this on a large scale. However, the Impact Assessment Team undertook a number of detailed on-farm measurements, interviewing farmers as to their recollection of changes in production and marketing, looking for written evidence or recollection of extension agents or neighbours to confirm this and visually surveying the current production levels and animal numbers.

The interviews with CIGs reveal that most groups and members, both men and women, have managed to improve their production and food security considerably. According to the NALEP internal assessment, as many as 80% of the farmers interviewed in the Focal Areas stated that the introduction of the programme has offered new opportunities for men, women and youth in agriculture. More than 70% of the farmers interviewed claimed that the NALEP approach had led them to regard farming as a business rather than a way of surviving.

One interesting example is the banana CIG in Maragua District that has emerged as a growth centre for banana production and marketing in Mukuyu Division. Tissue banana was introduced through NALEP facilitation work and the CIG was established in 2003. Since the start more than 50 tons of tissue bananas have been marketed through a newly established marketing centre also functioning as a demonstration and training facility. Membership has increased to 40 members and because of the profitability of banana production a number of farmers are eager to join the group. The members include some 10 single widowed female farmers. The poorer members have planted an average of 150 banana trees each while the more affluent members have increased their plantations by some 200–300 trees. Most members of the banana CIG are also members in other farmers groups focused on mango and avocado production and marketing. NALEP in conjunction with Technoserve, an NGO collaborator providing marketing and training, reports that some 30 banana groups have been established in the district and that bananas are appreciated because of good market prices as well as for food security.

Food security concern and awareness is surprisingly well developed among the NALEP staff at district, division as well as field level. In a number of drought stricken areas cassava and sweet potatoes have been introduced by extension staff and collaborators. Both cassava and sweet potatoes provide a sound foundation for food security as well as potential for surplus marketing. A good example was found in Mayenga Community Farmers Development Group where pest resistant cassava was introduced through a group buying cuttings from the Kisumu Research Station. Producing and selling cassava is more profitable than maize and sorghum, and a major shift towards cassava production and marketing has been established.

One of the more important changes regarding food security and income is the renewed focus on local vegetables. The majority of women interviewed seem to have expanded their vegetable production both for subsistence and as a market commodity. Small vegetable “kitchen gardens” of some 10 square metres introduced by NALEP extension has in a number of cases been expanded to commercial enterprises, often by women. Local varieties have been promoted. For example most women interviewed in Ibeno focal area in Kisii District have initiated vegetable gardens up to ¼ acre planting black knight shed, spider flower and sukuma wiki. The vegetable gardens are particularly important for the poorer households, as the seeds for local vegetable varieties are readily available without any costs.

#### **4.2.2 Farm production and productivity**

The lack of time series economic and production data is a serious weakness in the internal surveys and monitoring undertaken during the life of NALEP. It is very difficult to reconstruct productivity measurements over time and impossible to do it on a large enough scale to draw definitive conclusions about NALEP impact on productivity.

Still, from the extensive observations made at field level and great amount of data on farmer adoption and feedback, it is possible to surmise that the greatest impact on productivity for NALEP has been on food security for a growing and increasingly poor population. Impact on exports or other commercial types of production must be assumed to be rather modest. According to the NALEP internal assessment most groups and individual farmers/members in the Focal areas do not process or add value to their produce. Only some 19% of those interviewed carried out some form of value adding, and few examples of value adding witnessed by the external Assessment Team were less successful.

An example of farmer groups where members have improved production and productivity is the Gigongo Dairy CIG in Thika District. Some 30 members are active in the group but close to 100 have been provided training in artificial insemination procedures, improved feeding, record keeping, production of silage, and planting of fodder crops. All members have improved their feed regimes considerably and also improved milk quality and milking practices. Members interviewed estimated that the average production per cow has increased from approximately 6 litres per day to some 20 litres.

According to farmers interviewed in the Focal Areas, the benefits of the NALEP work in the areas are that farmers of different categories have been exposed to training in relevant agriculture practices. The NALEP Internal Assessment (2006) indicates also that more than 70% of the farmers that have joined CIGs have experienced increase in their production. Some 46% of the respondents claim that they have improved their record keeping.

#### **4.2.3 Farm Action Planning**

NALEP began with a very ambitious approach: to try to have an impact on the individual farmer. This approach perhaps stemmed from the Soil and Water Programme's success in influencing individual behaviour at the farm level.

When focal areas containing about 400 farmers were identified, and the Focal Area Development Committee formed, each farmer was visited by at least one member of the divisional extension staff and a Farm-Specific Action Plan (FSAP) was drawn up together with the farmer. This ambitious undertaking was intended to provide a basis upon which the farmer and the extension agent would agree upon a plan of action to be followed in the course of their future interaction.

During the years 2000 and 2001 it seems that almost all farmers participating in the NALEP programme were assisted to draw up a FSAP. As implementation progressed, however, there was less and less enthusiasm shown for this costly and time-consuming exercise, both on the part of the extension staff and the farmers themselves.

Many farmers who participated in NALEP in the first three years still have their FSAPs available if one asks to see them, although it is difficult to see that these plans have been followed. They provide an excellent baseline for programme initiation, but have not been followed up by any monitoring or evaluation efforts. Most extension staff lamented the fact that the individual farm action plans took a very long time to develop. They were generally viewed as good for mobilization purposes but of limited use in the extension dialogue.

The follow-up of these plans has varied. In Keumbu Division, Kisii District in Nyanza Province it was estimated that only 10 individual plans have actually been used since NALEP started. In Mukuyu Division, Maragua District, Central Province the district team had compiled some 1000 action plans for individual farming households in the Focal Areas. The team members used very few of these plans, despite the fact that a large part of the work in establishing the Focal Areas had been devoted to collecting and compiling them. None of the plans had been used for a formal monitoring exercise. The team estimated that, on average, only 40% of the planned activities had been implemented, leading to the conclusion that the plans were over-ambitious.

These few examples illustrate the generally disappointing use of FSAPs. However, it is not surprising that the FSAPs did not fulfill their initial purpose. Introducing any kind of written farm planning into the smallholder sector is a daunting challenge at best. Many farmers are semi-literate, and most have little or no experience of investment planning. Similar efforts in other countries have met with little or no success.

The Farm Plans therefore suffered from a common problem in such exercises: the prevalence of physical planning over economic planning. While both are necessary, physical planning in the absence

of economic considerations quickly renders any plan unrealistic. It was also pointed out by many members of the extension service that farmers would have needed to access credit funds in order to be able to realize the investments called for in the planning. As these funds were seldom available, even outside of the NALEP programme, farmer ability to follow up on the plans was severely constrained.

The NALEP programme seems to have internalized this information into its activity planning, however, because massive and mandatory individual farm planning was not part of the new NALEP approach introduced in 2004/05.

Potential membership in CIGs seems to be the new mobilization tool and, although individual farm planning is still an activity, the approach is to wait until farmers actually ask for a plan before drawing one up. Extension Staff view this as a much more efficient approach and relate that the new plans, although few in number, are used to a much greater extent than previously in their discussions with groups and individual farmers.

#### **4.2.4 Environment**

While sensitive to the environmental issues raised by extension packages promoting different technical innovations, the extension staff interviewed did not seem to have undergone EIA training as planned in the first phase programme document.

In spite of the lack of formal training in EIA, most NALEP staff are well steeped in an extension approach that is based on the soil and water conservation tradition. The approach includes an understanding of the connection between natural resource conservation and agricultural productivity and interdependencies in ecological systems. Field staff and farmers spontaneously bring up environmental considerations in their production systems. Field workers seem to use model farmers as examples of environmental protection/conservation measures that may be applied to other farms. An example of this is the Nyankororo Agriculture Initiative that has one of the best small scale farmers in the province as a member. He received a reward for good farming last year and his small farm is used for demonstration of both improved farm management and conservation measures during field training and spontaneous visits.

However, in promoting commercialisation of agriculture, the focus of extension services is increasingly on income generating activities by individuals and groups. It is the impression of the Team that extension officers devote less explicit attention to environment concerns and protection than under the previous National Soil and Water Conservation Programme, with the exception of some tree-nursery activities for income generation. Soil and water pollution, plant and animal bio-diversity and waste disposal are not automatically incorporated in the dialogue between extension staff and farmers.

One of the more concrete improvements in environmental awareness is the NALEP assisted introduction of “fire-less cookers”. The introduction of these cookers represent a major improvement in fuel wood consumption and at the same time serve as a labour saving device for household cooking. Households with considerably different social backgrounds have adopted these cookers. These cookers are easy to produce locally and are highly appreciated by the women using them.

#### **4.2.5 Access to Extension Facilitating Factors**

NALEP has also been active in exploring the issue of rural credit and pointing to ways in which these funds could be mobilized within Focal Areas. One area that is being actively explored in Western Province, for example, is the use of the Stakeholder Forum as a vehicle for mobilizing credit funds to farmers. A newly introduced NALEP micro-credit facility, functioning as a seed fund, to selected Focal Areas has met with limited success. An amount of some KShs 500.000 has been provided by the programme for purchasing seed and fertilizer and other farm inputs. The repayment rate of these funds has so far been very limited and it is questionable if the programme is capable of managing a facility of this nature.

#### **4.2.6 Private Sector Involvement Including Extension Pluralism**

The private sector is expanding rapidly in high potential areas, especially in the areas close to Nairobi, and tends to provide extension services where it is profitable. Commercial service providers are filling up gaps where public extension is weak such as in floriculture. According to the Review of the NAEP (April 2005), companies and individuals in the dairy sector are advising farmers about feed, AI, veterinary services and hygiene. Input suppliers tend to appreciate the potential use of the CIGs established under NALEP as entry points for commercial activities.

A relevant reflection of the private sector involvement in extension work is the composition and work of the district stakeholders' fora. The districts visited by the assessment team show considerable diversity in composition. The Kisumu District stakeholder forum, named Kisumu District Intersectoral Community Group, consisted of 16 members of which only one member represented private commercial interest, the cotton industry. On the other hand the Kisii district stakeholder forum (Kisii Rural Development Consortium) consisted of members representing a number of private interests including seed companies, fertiliser companies, agro vet companies, and stockists, all of them participating in field days and exhibitions organised by the Consortium. Only those who had paid a membership fee of KShs 1.000 were allowed to participate in demonstrations and extension.

Thika District Stakeholder Forum, located close to Nairobi, has managed to integrate a large number of NGOs, projects, and commercial companies as well as some large-scale farmers. Twenty-three commercial companies are members of the Forum and much of the deliberations among members are said to be focused on commercial issues often related to marketing and processing. Some of the larger companies have paid a membership fee of KShs 5.000. The Forum has arranged a number of field days where new technology, seeds and pesticides have been demonstrated. The Forum is reported to be a key instrument in connecting commercial interests with NGOs and research institutions and the farming communities. Seed companies are particularly active in providing demonstrations for farmers.

#### **4.2.7 Relationships between NALEP and Collaborators**

The NALEP approach is firmly based on national policies such as the NAEP and the SRA. The production of programme documents and review sessions often involves many actors from the agricultural sector and produces consensus in various aspects of national policy making processes.

While extension staff appreciate the bottom-up approach to planning that is an integral part of NALEP, there are many complaints that it is rigid in relation to other donor-funded programmes and that the principle of no handouts is a difficult one to maintain when other programmes do not follow this.

Besides bottom-up planning, where division and district extension staffs are able to have a say in their activity planning, NALEP is also appreciated for the wide variety and intensity of training opportunities that it makes available to extension staff. In spite of these advantages, extension staff still prioritise working with other donor-supported projects for a number of practical reasons.

These may be as simple as the fact that meeting allowances are paid in other projects or that working with a programme that includes hand-outs and/or access to credit or inputs is more attractive both for the farmer and for the extension agent who is identified as the one who connects the farmer to these advantages. NALEP staff are not able to pay sitting or travel allowances to farmers for training courses. This puts it at a disadvantage compared to other donor sponsored programs, for example those of IFAD and the World Bank.

The IFAD project active in several districts of Central Province, for example, was generally regarded both by extension staff and farmers embraced by the project to be more attractive than NALEP. This was particularly related to more generous top-up of staff salaries for those government extension staff working with IFAD. It was also pointed out that IFAD worked through the Ministry of Planning and did not have to coordinate its policies with the Ministries of Agriculture or Livestock. Little wonder

that some organisations/ collaborators are regarded as competing organisations instead of collaborators in line with NALEP intentions.

In many areas visited it was reported that farmers were paid allowances in order to participate in training and meetings. There were also (fewer) cases of seeds, smallstock and other agricultural inputs being given to farmers as part of a donor-funded project. Subsidised inputs provided by several NGOs and donor supply driven projects hamper the impact of NALEP which is based on self-reliance and may neutralize the ability of farming communities to mobilize on a self-help basis for long term sustainability.

In contrast with other donor supported projects, local NGOs/CBOs and FBOs can be very supportive of NALEP. Their efforts are most often viewed as complementary, rather than competitive for extension resources.

One example of this is the Banana CIG in Makuyu Division, Maragua District, Central Province, where the initial mobilization of farmers was done in the (Thaara) Focal Area by NALEP staff in 2001 for bananas, dairy goats and a savings association. Since then an NGO (TechnoServe, financed in this case by the Rockefeller Foundation) has assisted the farmers in building a banana collection and grading centre, while NALEP has provided training and demonstration materials for tissue banana production.

The Assessment Team found numerous examples of areas where NALEP carries out basic mobilization activities and “stimulates the interest” of other organizations who work in areas of specific interest to the newly organized farmers. However, the NALEP internal assessment indicates that majority of farmers residing in the Focal Areas, some 80% of those interviewed, had never experienced or been provided with material or financial assistance from any service provider before or after the introduction of NALEP.

The comparatively large number of organizations working with agricultural and rural development in Kenya makes it practically impossible for NALEP to identify and select Focal Areas where other projects or donor driven activities are absent, as intended in NALEP policy. Some NGOs and development organisations active in NALEP programme areas are: VI-skogen/Swedish Cooperative Centre, Plan International, IFAD, World Vision, SACDEP, RODI, Technoserve, Care, Africa Harvest, KARI, Home-grown, CAP, Agro Action, etc.

#### **4.2.8 Coverage of and Impact on Vulnerable Groups**

The inclusion of vulnerable groups and individuals in the NALEP approach and extension work has emerged as a major part of the dialogue among the NALEP staff both at the field level and senior officers as to improve efficiency and effectiveness of the programme. Staff awareness of the necessity of including vulnerable groups in extension work is considerable and most of the staff met during the assessment were highly involved in identifying improved means to include vulnerable groups in the work. The staff are proud to confirm that “ordinary extension workers have never been concerned with problems of reaching the very poor and vulnerable”. The approach, which the assessment team found highly relevant, is to encourage vulnerable groups to improve livelihood through agriculture production, not hand-outs, through increasing their understanding of the potential of their own means and opportunities, to gradually provide them with a voice, and integrate them into a productive economic context.

In interviews with field staff, it became obvious that NALEP processes are very time and energy consuming for the staff. The most efficient approach, as identified by most field staff, was to meet the most vulnerable individually in order to initiate a process of participation and empowerment. In all districts visited by the team it became clear that the extension staff were uncertain as to the most effective modes of incorporating and reaching the vulnerable. The Assessment team could observe that different modes for reaching different categories have to be designed and implemented. The more vulnerable were easily identified and categorised in the initial baseline survey carried out during the introductory period

of a Focal Area introduction. The awareness of those being defined as vulnerable was very high among both staff and community members, but the strategies for inclusion were less clear.

A highly interesting observation found in a large number of more “conventional” Common Interest Groups (CIG) was that also a considerable number of members of those groups were concerned and aware of the problem of including the vulnerable in extension group approach. Several of the groups have discussed, together with extension staff, different ways of improving conditions for the vulnerable and encouraging those who may manage to think in new terms regarding their opportunities for improving their conditions. It was clear that, for most farmers and groups interviewed, individuals have to be approached and it was unlikely that spontaneous empowerment and inclusion would occur among the different groups of the most vulnerable community members. Very few of the most marginalised and most vulnerable members of the communities had joined commercially oriented Common Interest Groups as members.

However, in a number of districts, determined and successful inclusion approaches have been introduced, both spontaneously by members of CIGs and by NALEP extension staff, often together with a faith based collaborator organisation, such as a local church organisation.

An example is a dairy CIG in Kandara Division, where the older members spontaneously created a special group to care for approximately 300 young orphans in the community, as well as provide opportunities for their advancement. The Muruka Educators, as the group has been named, is reported to have provided food and medicines to orphans, and collected sufficient resources to purchase a water tank that is used for the orphans. Vegetable seed and basic training has also been provided, inspired by NALEP extension staff.

It was reported that NALEP staff, in a number of areas, has managed to connect and encourage local churches to become engaged in supporting the emergence of vulnerable groups for active extension work. The creation of specific groups for vulnerable individuals seems to carry less trauma than was expected by the assessment team. An example of a highly successful vulnerable group is the Ukulu Venerable Self-help Group, established in Machakos District. The Ukulu groups consist of 82 old and disabled women, mostly widows. Most members have, during the last few years, advanced from dependence on food relief to improved production and marketing of local poultry.

Different categories of vulnerable people experience different constraints and opportunities. It is a highly complex process to create opportunities for all these categories to engage in productive and sustainable work to improve their livelihoods. NALEP is devoting considerable effort to addressing these opportunities. Different crops and commodities have been introduced, such as local poultry, cassava, vegetable production, sweet potatoes, but also other approaches like table banking and savings schemes. There is no blueprint approach, which all NALEP staff interviewed realised and the team feels that the demanding work initiated by NALEP is a very encouraging process towards improving the livelihood of the rural vulnerable groups.

#### **4.2.9 Mobilization and organization of farmers**

One of the most important impacts of NALEP has been the formation of different interest and steering groups. These groups can be divided into three levels: the Focal Area Development Committees (FADCs), the Common Interest Groups (CIGs), and the Stakeholder Fora at Divisional, District and Provincial levels. Each of these group formations has a different rationale and each have achieved varying degrees of success in the different geographical areas. Still, it is a common theme running throughout the NALEP concept that groups formed around a common purpose are the most cost-effective manner in which to guarantee sustainable development over the long run in the agricultural sector. The degree of success, in addition to being dependent on circumstances, is correlated to the degree of ambition and the scope of each group.

### *Focal Area Development Committees (FADCs)*

The experience with FADCs shows a fairly wide variation between different areas and thus the function and activities of these Committees can be surmised to be an impact of many factors, including a fair number outside the control of NALEP. As a tool for mobilizing the participatory forces within a Focal Area and introducing group work they have been universally introduced by extension staff in each successive new Focal Area.

There is, however, some confusion about the role of the committee, or at least different interpretations in different areas. FADC members were given a three day training course in how to operate in committee form and then, once functioning, were used by extension agents in two sometimes complementary ways:

1. for spearheading community mobilization around common projects such as environmental protection and the encouragement and formation of Common Interest Groups; and
2. for adopting and demonstrating new technologies; the initial training around these new technologies being offered first to committee members in the expectation that they would adapt the new technology themselves and then demonstrate the technology to their neighbours

In adopting new technologies, the Committees seem to have been an adequate tool, perhaps because community leaders tend to be those who are innovative and successful in farming. In some areas (Maragua District, Central Province for example) it was estimated that 20 of the established Focal Areas and their Focal Area Development Committees are active and dynamic, in the sense that the committees meet regularly and provide a dialogue with the existing CIGs or the FEW stationed in the area. Many of them come together if one or several of the members have called a FEW for a specific training or instruction event.

One example of a non-functioning FADC comes from the same District (Maragua in Central Province). The Karumu Focal Area Development Committee/Kandara Division was established in 2001 and was active during the initial phase of the establishment of the Focal Area. Today the committee is dormant. Individual members of the (former) committee are very concerned by the fact that the committee could have attracted funds for their area but because of internal constraints and lack of focus, it appeared as if the committee would be difficult to revive. Interestingly, the old committee members do not know what has happened with the work and activities in other Development Committees in adjacent Divisions. This was also a concern of the Division extension team whose members expressed a need for further information about the activities of Development Committees in other Divisions within the District.

### *Common Interest Groups (CIGs)*

The CIG is a form of community and farmer mobilization with a huge potential for impact. The groups of farmers are formed with what could be termed a “participatory top-down methodology”. While membership is not obligatory and the theme of the groups is left more or less open to choice from a list of opportunities identified by the farmers in the community and the extension officers during the initial base-line surveys in the Focal Areas, farmers are actively encouraged to belong to these groups by the extension agents.

As far as could be estimated by the samples studied and interviews with a number of field technicians, the success rate of the CIGs is probably somewhere between 30 and 50%. However, a considerable number of those CIGs labelled as “failed” continue to function as ordinary extension groups. Members and non-members continue to meet with the extension service more on an ad hoc basis as loosely composed groups of farmers rather than as well-structured CIGs.

It was noted that CIGs dealing with food crops such as maize had a particularly poor rate of continuity, while those dealing with dairy goats and tissue bananas, grafted mangos, and local vegetables, for exam-

ple, showed a higher-than-average success rate. Several of these groups are actually buying produce/milk from neighbouring farmers who are not group members in order to be able to sell in bulk to traders. Many groups are reported to have expanded their membership, but formal documentation at the Division level is largely non-existent.

The rate of success seems to be connected with the marketing arrangements, where food crops are consumed and traded locally in small volumes, but where milk and certain horticultural products such as bananas require a larger volume and more formal marketing infrastructure in order to be successful. The rate of success is often affected by the presence of a CBO/ NGO who is active in agricultural marketing, an area where NALEP does not have funding or staff resources.

The rate of failure may seem high, but it should also be viewed as part of a dynamic process by which different organizations are tried and allowed to fail when they do not meet participant expectations. A common experience in CIG formation is that, initially, CIGs tended to carry out too many activities. These groups require more guidance from the extension service and/or organisations with experience in group dynamics. This is particularly relevant for those groups that also include the poorer segments of the population. However, no less than 58% of all the CIGs interviewed reported that they carried out some form of regular self-assessment of the members' performance and as many as 79% of all the CIGs had some form of plan for future activities.

The rate of success could be raised significantly if community and farmers mobilization was allowed to take place over a longer period of time and extension agents were not given targets of how many CIGs to form. Promoting farmer organizations is a very complex and delicate undertaking, as the predominantly dismal experience with cooperatives in Africa has shown.

Forming the CIGs should be a step-by-step experience where farmers are first allowed to perceive that they, indeed, do have a common interest. It is all too common that someone from the outside sees this first, and tries to hasten the process. Working together requires a degree of trust that normally does not exist in communities where the means of survival (natural resources such as land) are perceived to be scarce and likely to become more so. This is the case for many of the NALEP areas covered in the first phase, where emphasis was (rightly) put on highly populated, high potential areas in Central and Western provinces. Where the population pressure is less intense tends, in Kenya, to be in areas where the potential for agriculture is extremely limited by lack of water or suitable soils, although these areas are beginning to experience increasing pressure as the population is forced to leave areas such as the central highlands.

CIGs have often emerged as a useful tool for addressing cross-cutting issues such as HIV/AIDS or gender. CIGs that were formed to deal with agricultural production issues often take on other activities that are important for the community, such as the care of orphans in communities where young adult deaths due to HIV/AIDS is a serious socio-economic problem. The direct connection between labour input into agriculture and young adult mortality is one of the reasons why these groups take on the organization of extra food to families who house orphans and collecting money for school fees, etc.

The sampling done in Maragua district, Central Province and Kisii district in Nyanza Province indicates that a number of those CIGs that have dissolved have actually been transformed into regular extension groups. It was also reported that a number of dissolved CIG members have either joined or work in close "partnership" with members of existing groups in order to benefit from the adjustments and change in management or marketing that the respective group has encouraged.

The ideal structure for a CIG expressed by extension staff is that a CIG should be a group with a common purpose – an enterprise. It was reported that new CIGs are being formed spontaneously, without the input of the divisional extension workers, in those Focal Areas that were mobilised in the beginning of the first phase of NALEP introduction.

In general, the CIG approach can be seen to have caused a number of positive impacts.

- The CIG approach has *mobilised* and encouraged a number of farming entrepreneurs in the rural areas who have realised that the volunteer group formation based on a commercial enterprise could serve as a strong foundation economic expansion.
- A considerable number of CIGs have actively incorporated widows and female-headed households as members. A number of these women tend to act as entrepreneurs, giving them considerable opportunities to both improve their economic positions by group membership as well as providing opportunities to influence the work of the group members.
- A number of CIGs have introduced various schemes whereby orphans are regularly provided with food by the members. A strong sense of solidarity towards the very vulnerable has merged among several CIGs that is reflected in concrete efforts and dialogue with the vulnerable community members. This is particularly emphasised among the more recent groups. However, members of the communities that are HIV/AIDS infected still carry a considerable stigma and are to a lesser degree incorporated in CIG activities and membership.
- A number of individual farmers have expanded their production considerably, often members of active and inactive groups – in certain areas groups are becoming *emerging growth centres* with relatively intensive farmer-to-farmer agriculture interaction and communication.
- An internal NALEP assessment (2006) indicates that as many as 55% of all CIGs visited and interviewed were actively involved in marketing members' produce. However, the majority of farmers market their produce through or to neighbors, friends and/or relatives.

#### **4.2.10 Research-extension Linkages**

Support to ICRAF, as well as to the Kenyan Agricultural Research Institute (KARI), was originally a subcomponent of NALEP in Phase 1. The support to KARI was focused on research in soil and land husbandry at Muguga and agro-forestry at Embu. The ICRAF initiative on improved land management in the Lake Victoria Basin, with demonstration activities in Kisumu district, was an area of collaboration with NALEP. Both activities have since been disaggregated from the NALEP financing structure and are supported on separate budget lines by Sida.

Both institutions have different ambitions in terms of target group impact from those of NALEP. Both have opted to concentrate on case studies concentrated on a few areas, at considerable costs, but designed to develop methodology rather than engender widespread adoption as is the case for NALEP.

KARI maintains 20 major research centres throughout the country, each Regional Office covering about 10 districts. Many of the regional offices have subject matter specializations that reflect local agro-ecological conditions and potential.

Very little basic research is carried out and KARI sees itself as a broker of information; responding to farmer demands; making a specialist assessment of available technologies; and relaying that information to groups of farmers or CBOs involved in farmer training activities. The umbrella programme, under which these activities are carried out (the Agricultural Technology and Information Response Initiative) has been funded by the World Bank since 2000.

Researchers have long been aware that the results of their experiments often end up in reports which stay on the shelf and do not reach farmers. With World Bank funding, KARI researchers have been able to respond directly to farmer demands and do research on issues of priority for farmers. One of the weaknesses of this set-up is that farmers have to approach one of the research centres in order to present their needs. This tends to favour groups of better off farmers located close to the regional offices who are able to physically mobilise and articulate their needs to a researcher. It is safe to say that the great majority of those targeted by NALEP do not meet these conditions.

The other disadvantage has been the tendency of the research organizations (and this is not limited to KARI) to want to disseminate the research results directly. There can be a number of reasons for this and, while it does improve and revitalize the researchers' contact with farming reality, it is an expensive methodology and one with limited impact. These small on-farm "learning laboratories" generate interesting results, but the problem of disseminating these on a large scale is not solved. The flow of information is, however, well developed in the farming communities. The 2006 NALEP internal assessment indicates that, among those interviewed, 94% of farmers claimed to share information on agriculture production and technical information with neighbours.

However, there are also cases where research results were disseminated to farmers through the regular extension service. The Maragua District team reported that the NALEP approach of inviting collaborators to CIGs and Focal Areas had also managed to attract some of the research *results* produced at Jomo Kenyatta University and KARI. Among the most widespread *research results* was the introduction of tissue bananas, which were regarded as highly productive and pest resistant cassava. Both of these commodities were reported to be in such a high demand, both among poorer and less poor farmers, that it was increasingly difficult to meet this demand. The district team emphasised that the demand structure developed in the Divisions by the farmers involved in NALEP had been an important contribution to the rapidly increasing demand and the spread in these crops. The NALEP Internal Assessment (2006) indicates that some 89% of farmers interviewed claim to have acquired new and improved knowledge on agriculture production since the introduction of NALEP. As many as 80% of those interviewed by NALEP considered that interaction with research/extension had improved considerably since the introduction of NALEP.

#### **4.2.11 The Effect of HIV/AIDS Activities**

Acquired Immune Deficiency Syndrome (AIDS) is a tragedy of enormous proportions cutting through a cross-section of the Kenyan populace.

The lives of infected individuals, their families and communities, the organizations they work for and society as a whole is affected by HIV/AIDS pandemic. The Kenya Demographic and Health Survey (KDHS 2003) indicate that 6.7% of Kenyan adults are infected with HIV. Death rates from HIV have reached an unprecedented level in Kenya, at about 150,000 per year. Even with scale up of treatment, death rates in Kenya are likely to continue to rise because of the large number of people who were infected in the 1990s. New HIV infection rates have now dropped from over 200,000 per year in the 1990s to well below 100,000. Women are particularly vulnerable to HIV infection. Almost 9% of women are infected with HIV compared with 4.6% of the male counterparts. Women between ages 20 and 30 are especially vulnerable. (KDHS, 2003).

The impact of HIV/AIDS on agricultural activities is considerable: inadequate food security in the households; increasing health expenditure; increased susceptibility to severe illnesses; the introduction of less labour-intensive crop production; less crop variety and less livestock production; and so on. Women and children are also especially liable to being disinherited of their land rights and the family may face disintegration. These are just a few of the dramatic effects of the HIV/AIDS pandemic.

While it is acknowledged that the HIV/AIDS pandemic is a major challenge facing the country, it is an issue that may have received more attention by NALEP extension service, particularly the field staff. In NALEP, prevention of HIV/AIDS has been incorporated as a highly important topic into the training of farmer groups. But only limited work appears to have been done in direct field extension work with households affected by HIV/AIDS. One of the major constraints identified by the extension staff is simply the time needed to reach each individual household for a discussion on possible improvements in livelihood. It seems to be necessary, as reported by the NALEP field staff, to meet each household individually, as the stigma of the disease is still considerable. The NALEP field staff interviewed complained that they had not received training in counselling, an approach they felt may be the most effective in creating a dialogue with these households and individual.

An institutional analysis was carried out by the core team members aimed at finding out the scale and nature of the epidemic and its impact among the agricultural extension staff. It was revealed that a significant number of extension Staff were being lost per year due to HIV/AIDS. As a result, a study tour was organized to Uganda. It was reported to the assessment team that the lessons learnt will be integrated in Phase II. There is considerable stigmatization in the rural areas and HIV/AIDS is an issue that is rarely openly discussed in CIG's meetings. The attitude is that all HIV positive persons had engaged in promiscuous activities. Whereas most non-AIDS illnesses produce sympathy and support from family, friends and neighbours, persons with AIDS are frequently feared and shunned. Due to stigmatization and discrimination, those affected avoid detection and contact. There is a need for the extension workers to have further HIV/AIDS training and counselling to successfully target and reach the vulnerable who are either infected or affected. NALEP is developing linkages with other organizations already active in HIV/AIDS awareness across other sectors and this is a very promising approach for active inclusion of HIV/AIDS consideration in daily extension approaches. The NALEP internal assessment seems to confirm that the farmer groups are less involved in HIV/AIDS related activities. Only half of the groups interviewed were aware of HIV/AIDS activities.

#### **4.2.12 The Effect of Gender Equality Activities**

Gender mainstreaming is one of the NALEP components aimed at ensuring that men and women staff/farmers participate, contribute and benefit from the project activities in an equitable manner.

The focus is on making a difference to male and female small-scale farmers through income generation and raising awareness about social, economic and legal issues related to natural resources and their management. The overall goal is to increase agricultural productivity and food security for eventual poverty reduction.

NALEP staff have to a considerable degree realized that major constraints to agricultural productivity are often gender-based. Gender-based differences affect access to land, extension, technology, finance, time, mobility, education and training. It is important to understand gender roles ascribed to the various groups: men, women, and youth since gender shapes the opportunities and constraints that women and men face in securing their livelihoods in different focal areas.

The majority of NALEP staff interviewed have also realised that gender awareness is the conscious knowledge that communities and farmers are not a homogeneous group and that the benefits of agricultural development and transfer do not automatically accrue equally to all members and segments of a given community. In many instances these inequalities are due to gender differences in the division of labour, rights, economic activities, access to resources and the management and utilization of natural resources.

There are still important challenges faced by NALEP in involving women in its activities. Some of these seem to be the following.

- Communities have not been sufficiently sensitized on gender issues or gender analysis.
- Gender has been misconstrued to mean female affairs.
- Gender roles – women's reproductive roles reduce their mobility and the time and energy they have to carry out farming activities.
- Discriminatory social cultural practices that reduce women's economic options and social interactions that restrict their access to the information and resources needed to respond to economic opportunities. Most decisions appear to be made by men and women tend to agree with men's decisions, e.g. on which crops to grow.
- Differential access to wealth and resources determines which projects to begin. Because men com-

mand more wealth and resources they dominate in enterprises that generate higher cash returns, e.g. dairy projects, horticulture and fruit growing. Women are often engaged in low cash return projects meant for household use, e.g. poultry projects and small ruminants, e.g. rabbit keeping, fireless cookers and labour saving jikos.

- Gender imbalances result in conflicts of interest. Youth and women tend to separate and choose to keep quiet in CIG mixed group meetings. However, there are a large number of examples where women, particularly widows, are very active and successful in adapting CIG extension advice.
- Farmer selection may not have sufficiently included resource-poor women.
- Imbalance in the gender composition of leaders in the CIGs and in FADCs. However, there are considerable variations. In one FADC interviewed in Kisii District, considered to be a strong patriarchal area, the majority of members were women.

NALEP is addressing the challenges by carrying out gender analysis to understand the roles of various household members; who has access to and control over resources; and who benefits from production. NALEP field staff are to some extent assessing the implications for women and men of any planned action and try to ensure that both men and women can influence, participate in and benefit from development processes. NALEP staff are trained in: gender awareness and communication methods to overcome stereotyped view of women/men farmers; how to overcome restrictions on interactions between men and women; and how to make appropriate extension advice/technologies to women farmers. The staff are also promoting through common interest groups enterprises of sufficient interest and value to women such as home-consumed staples, fruits and vegetables. An example of this approach is the Kyeluki Joy Fruit Processing Group whose 20 members (18 female farmer members) are successfully producing and processing papaya, mango, bananas for the local market.

NALEP staff are reported to emphasize an affirmative action approach in group responsibilities, training and deployment: NALEP has a gender equality clause that at least 30% must be women in all the programme activities. The staff interviewed confirmed that they tried to: hold training at venues accessible to male and female farmers; carry out training in the afternoons; and ensure that training sessions were as short as possible. These approaches are designed to ensure that women are able to carry out their other roles and activities.

NALEP's gender approach is reflected in women's formal participation in decision making. Internal NALEP documentation, validated by the results of the assessment team interviews, indicates that:

- 33% of the NALEP PCU members are women;
- 20% of NALEP farmer coordinators are women;
- 30% of Focal Area Development Committees (FADC) member's and community leaders are women;
- 40% of staff participated in training and study tours organized by NALEP were women;
- about 40% of those participating in NALEP activities training, tours, CIGs are women.

Assessment interviews indicated that: increased women's access and control over productive resources and benefits is improving; women are successfully connected and networking with relevant collaborators, some of whom provide resources specifically to women (e.g. Kenya women finance trust, Piga Njaa Marufuku, CBOs, SACCOs, churches provide credit without collateral e.g. Mbeere catholic diocese is providing farm inputs to the vulnerable groups majority of whom are women).

NALEP statistics indicate that women comprise 70% of Common Interest Groups (CIGs) on food crops and small livestock. More importantly, there has been a considerable increase in women participating in commercial farm enterprises previously undertaken only by men, such as dairy cows, bee-keeping, horticulture, marketing and processing.

The Assessment Team was able to note a significant level of gender sensitivity at all levels of the programme. Extension officials at all levels were well acquainted with gender issues, gender targeting and gender disaggregated statistics. Gender issues were raised in a matter-of-fact way when discussing programme activities and no special prompting was necessary to receive statistics disaggregated by gender.

While some special women's groups have been supported, the majority of farmers groups are open to both men and women. It was a common observation among extension workers that women, particularly widows, often made the best entrepreneurs.

This is a group where women dominate as members both in numbers and in their capacity as a driving force of the group. Women are very active in the group and as individual farmers. The group may be regarded as a centre of excellence both regarding women's strong participation and their determination regarding their farming activities where both business and food security are in focus. The group is also an example of a CIG that did not die out when NALEP activities moved on from their location: "the Focal Area has now ended but we work hard anyway".

The members are all concerned about the drought and the erratic rainfall and weather conditions may be one major reason that they are deeply concerned with improving their farming methodologies to secure income and food security. Previous alternatives for male employment in the area like fishing, cotton or the sugar industry have decreased considerably.

The women in particular are capable of expressing the NALEP approaches and are very proud of their achievements since NALEP inspired them to form the group. Members are very confident. They have a clear sense of business vision that they share with the men.

The DAO reports that members, both men and women, are very active. They approach the Divisional officers very frequently and ask for training and demonstration, making comments such as: "They want to learn more about serious farming!" "The widows are very hard working – they are the implementers among the women – the married women are much slower – too dependent on their husbands."

#### Gender disaggregated data on NALEP supported activities during 2000–2004/5

| Training activities/<br>Years | 2000/01 |       | 2001/02 |       | 2002/03 |       | 2003/04 |       | 2004/05 |         |
|-------------------------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|---------|
| Gender (f=female;<br>m=male)  | m       | f     | m       | f     | m       | f     | m       | f     | m       | f       |
| FADC                          | 1862    | 911   | 2127    | 1086  | 2115    | 1181  | 2250    | 1219  | 3024    | 1435    |
| CIGs                          | 7405    | 8129  | 14507   | 10286 | 13513   | 13267 | 20721   | 16109 | 126,827 | 100916  |
| Community leaders             | -       | -     | -       | -     | 2438    | 1477  | 728     | 390   | 1435    | 779     |
| Field days                    | 22305   | 18540 | 22184   | 16335 | 33726   | 27263 | 30810   | 23420 | 38799   | 28187   |
| 4k clubs                      | 2361    | 1788  | 2999    | 2372  | 4777    | 4729  | 6169    | 5629  | 8211    | 7439    |
| Young farmers                 | 570     | 367   | 829     | 337   | 463     | 307   | 1619    | 1082  | 1573    | 1754    |
| Tours                         | -       | -     | -       | -     | 1643    | 707   | 1433    | 854   | 2594    | 1283    |
| Out of school youth           | -       | -     | -       | -     | 1475    | 685   | 2144    | 1282  | 2712    | 1812    |
| Total                         | 25236   | 20695 | 26012   | 19044 | 60150   | 49616 | 65874   | 49985 | 185,175 | 143,605 |

Total women farmers' participation 282,945 (44%)

Total men farmers' participation 362,447 (56%)

#### 4.2.13 The Effect on Poverty Reduction

It is important that poverty be defined and monitored for the NALEP target group. This is an activity which is just beginning to take form, as NALEP becomes more concerned with targeting vulnerable groups.

The Assessment Team was able to confirm that the target group for NALEP activities are both small-holder farmers and even those who are landless. This is in sharp contrast to extension activities in many parts of the world which are typically co-opted by the better-off farmer. The Team asked to visit better-off farmers and model farmers. Most model farmers operated in the range of less than 1 hectare of land. Even if it can be assumed that they receive more attention from the extension service than those with plots of 5m2 (observed in Vihiga district) they are well within the boundaries of any definition of poverty.

Several interesting examples of poverty measurement were encountered in the field visits. A typical example is that carried out by the Divisional Implementation Team (a broad based survey team functioning as a subcommittee to the Stakeholder Forum) in Shinyalu Division, Kakamega District, Western Province. This study divided the population of Wanzalala village (136 farm families) into three categories: Poor, able and well-off. These were defined as follows:

Poor – those who lack land or are unable to develop the land. They wear tattered clothing and have irregular meals and limited accessibility even to public health facilities. Most children are not educated and the housing is of poor quality, thatched roof and poorly maintained. These farmers currently account for 14.7% of the population.

Able – Farmers with land who grow cash crops such as tea, many own upgraded livestock and some own bicycles, radios and TVs. Their children attend local schools, houses are of a medium size and they can afford some external farm inputs. These farmers currently account for the overwhelming majority, 84.5% of the population.

Well off – Farmers with large landholdings and plots in big towns. In addition to farming they run large businesses in town, own cars and have children in private schools. They are able to employ local workers and can afford balanced diets and external farm inputs. This category is very limited, applying to 1 family only, statistically accounting for 0.8% of the Wanzalala village.

In addition to being able to define categories of poverty, the divisional team studied changes in poverty in this village over the last 20 years, of which the last five years are years of NALEP intervention and a general downtrend in the agricultural economy of Kenya:

|                                               |       |
|-----------------------------------------------|-------|
| Category A (poor before and still poor now)   | 10.3% |
| Category B (poor before but able now)         | 30.9% |
| Category C (not poor before but poor now)     | 5.9%  |
| Category D (not poor before and not poor now) | 52.9% |

The upwards and downwards shifts in these categories show a positive trend in recent years, in spite of national statistics pointing to a more negative development. Extension workers, understandably, feel that the introduction of NALEP has led to considerable improvement in the last five years. It is at least due to NALEP that they are beginning to define poverty and monitor changes over time. This, in turn, will no doubt lead to improved extension approaches and a greater understanding of the needs of farmers.

According to the NALEP internal assessment, only half of the 584 farmers interviewed thought that NALEP during its first phase had sufficiently addressed the plight of vulnerable persons in the communities and offered them opportunities to improve their livelihood. However, a number of CIGs with a number of farmers belonging to category B have focussed members' production of commodities that are both important for their subsistence and livelihood as well as being oriented for the market. Examples of commodities and production encouraged by NALEP extension staff having influenced and improved the wellbeing of a considerable number of poorer households belonging to categories A and B are local vegetables and fruits, cassava, local poultry, and bananas. A spot-check in Kisii District

by the assessment team showed that there were a considerable increase in demand driven extension also among the poor and among women. It was reported that some four years ago very little demand for further training were expressed by the local farmers. During last year, some 15 old and new CIGs were asking the Division extension team to provide group extension, for more farmers than the original CIG groups.

#### **4.2.14 Drivers of change**

The study assessed the extent to which NALEP contributed to the realisation of drivers of change. The analysis considered the broad area of advocacy and empowerment as it influenced anti-corruption, participation of various categories of farmers, the realisation of human rights, and equality in assessing agriculture information and related services.

The overall aim of advocacy is to empower communities and help build capacity within them, helping to facilitate or create situations and opportunities in which particularly “voiceless”, low-income male and female farmers can put across their views to policy makers and public institutions through various forms of local organisations.

Advocacy, rights and governance issues are important tools to create a democratic environment for dialogue with other interest groups and communities with regard to utilization, management and conservation of resources with other agencies.

Advocacy work in the areas of agriculture and livestock extension involves food security, environment, gender, governance, cultural survival, marketing and rural finance, education and health. It also involves addressing existing as well as emerging policy agendas that affect the lives of the poor and vulnerable.

Human rights are entitlements that every human being has by virtue of being human to enable them live in dignity. The principles of a rights-based approach include equality and equity, accountability, empowerment and participation.

In agriculture other main rights issues include access to food, access to information, access to natural resources and access to markets. NALEP's approach towards facilitating this process is based on its participatory approach and inclusion of poor households in decision making and production for sustained livelihood through the development of the CIGs and the Focal Area Development Committees. The assessment team has come across a number of CIGs where members have expressed a strong sense of ownership and a feeling that the extension service is not only actively listening to the poorer farmers but actually encouraging them to participate in productive ventures, improving food security and livelihood, providing new opportunities for gaining respect and participation in community life.

NALEP has made impact in regard to these issues in various ways:

- Community empowerment through wide participation by stakeholders during Focal Area identification. Community representation in conducting broad based survey resulted in community action plans. The design of community action plans reflects a conscious and determined decision making process in relation to problem identification, possible solutions and finally formation of common interests groups.
- Decentralized management, where divisions and Districts have become implementation units.
- Improved information systems – farmers are linked with marketing agencies and market information.
- Strengthening partnerships through inclusion of broad stakeholder fora.
- Addressing the needs of resource-poor and vulnerable farmers. Involving the resource-poor and vulnerable individuals and grouping themselves to play a pro-active role in identifying, discussing

and documenting the available resources is empowering. Through resource oriented development approach and participatory analysis of poverty and livelihood dynamics (PAPOLD), the resource poor and vulnerable have appreciated that they have some potential which they can utilize rather than waiting for handouts. This is at the heart of empowerment, restoring dignity and self respect to individuals.

- NALEP has moved many farmers from dependency to empowerment. Through capacity building in various skills and access needed to change their own lives, many have improved their own communities and influenced their own destiny.
- Through NALEP farmers are learning how to maximize the resources that are locally available to them and taking the initiative to learn from other focal areas as well as study exposure visits to different districts within the country. E.g., Mulingana dairy cows and goats self help group from Machakos district went to Wambugu farm in Nyeri district to learn and buy goats for their CIG.
- Many CIGs have been encouraged to open bank accounts, access loans, and make use of micro finance institutions. A good example is Kigio resource poor groups which have accessed funds from various institutions like Thika forum and Piga Njaa Marufuku.
- NALEP has also been successful in dismantling the poverty dependency syndrome of farmers by focusing on capacity building and not providing handouts. Through trainings the farmers have adopted new and improved agricultural technologies and sustainable practice to maintain much higher levels of independence. Once they are trained on management, leadership skills, group dynamics and technical issues, the groups are able to sustain their activities.
- Developing appropriate democratic procedures that ensure transparency and accountability at the stakeholders foras, FADCs, CIGs, and farmer groups.

#### **4.2.15 Training of Extension Staff, Farmers, FADCs and CIGs**

The agricultural extension service in Kenya in the 1990's was widely perceived to be ineffective and inefficient. In the midst of this weak extension service, the anomaly of a cadre of extension workers devoted solely to soil and water conservation, and with a considerable level of success, grew to be painfully obvious.

The Agricultural Ministry revamped extension policy in 2000 and Sida agreed to finance a programme which would try to bring the successes of the soil and water conservation programme to the overall extension service.

Today, in spite of the undeniable challenge that having three Ministries carrying out the work of the Ministry which existed in 2000, the idea of a unified agricultural extension service with highly trained extension workers has become a reality.

The quality of internal staff training is unmistakeable. The knowledge about NALEP approach and methodology is very developed among all staff in both Ministries (Agriculture and Livestock & Fisheries); at Headquarters as well as provincial, district, divisional and field levels. Everyone interviewed was able to give a sophisticated summary of the approach in his or her own words and in a way which indicated that there was a high degree of personal commitment. It is not difficult to appreciate that staff training has been a worthwhile activity.

Staff were proud to be identified with NALEP and identified two particular advantages.

1. *The budget-activities work plan approach.* This is considered to have greatly improved confidence, professionalism and efficiency among staff by allowing divisional staff to participate in creating a work-plan for each of its members and to compile an activity schedule and relate that schedule to a budget.

2. *The group extension and facilitation and the PRA approach.* The CIG approach introduced by NALEP, with one common goal and enterprise and encouraging the participation of women and the poorer segments of the farming communities, is now applied in all extension field work and is considered to be the only workable and effective extension approach towards farming communities and individual farmers. Having such an approach is viewed as the primary reason for considerable increases in effectiveness in recent years among extension staff at all levels, thus having increased effectiveness and efficiency considerably among staff at all levels.

The staff interviewed were very proud of their knowledge and understanding of the NALEP concept and approach. An interesting aspect of this was their interest in the pro-poor extension field approach where considerable uncertainty as to best practice prevailed among the extension staff. However, just the very fact that NALEP had managed to introduce a dialogue on this issue was considered a major achievement among the staff.

One example of this can be seen by the responses to Assessment Team interview questions in Keumbu Division, Kisii District where NALEP was initiated in 2000/01. Perceived staff impact as a result of NALEP presence resulted in the following specific responses to questions:

- we are all very active – we can respond to demands for field days
- staff is now becoming professional – we do what we are trained to do
- facilitation approach with groups have been inspiring and effective
- we control our motor bikes regularly, we know that we have fuel
- we plan our activities ourselves – this never happened before
- we come on time for the training and the demonstrations
- farmers are now asking for advice, that never happened before
- women are coming to the training and meetings, this is a big change

The information provided by the NALEP internal assessment (2006) to this report regarding extension staff working with NALEP implementation indicates that:

- 86% of the extension workers interviewed felt that the introduction of the NALEP activity work-plan and budget had enhanced transparency and accountability in their extension work and planning
- 91% of the extension staff interviewed considered that the NALEP resources provided by the GoK were not being made in time and slowed down NALEP implementation work
- 73% of the extension staff interviewed regarded the NALEP Focal Area approach as appropriate
- 83% of the staff interviewed regarded the gender approach advocated by NALEP as positive
- The majority of extension staff interviewed stated that there had been limited improvement in their interaction with researchers since the introduction of NALEP
- 66% of the extension staff interviewed that the documentation and administration required by NALEP was excessive. However, more than 70 percent of those interviewed regarded the planning instrument provided by NALEP as “a positive impact”.

#### **4.2.16 Stakeholder Development Fora**

The Stakeholder Fora that are present at Provincial, District and Divisional levels are another example of an effort by NALEP to lay down structures for long term institutional development. While the

degree of success with which they function varies between locations, there are a number of general conclusions that can be drawn: the mandate of the Stakeholder Fora is an informal one; they constitute working arrangements rather than official coordinating bodies; and official coordinating bodies within the framework of the ARD Ministries exist, but do not appear to be very active.

The District and Division Stakeholder Fora do not have the mandate or capacity to coordinate the activities between NALEP approach and other projects or NGOs. If an organisation finds the Forum of little use or conflictual, it may just abandon the Forum. The volunteer structure/membership, a result of the informal mandate, is not sufficient for coordination. A national policy, strengthening the Stakeholder Fora is probably needed if the NALEP approach to incorporate collaborators is to be creatively implemented. For the time being approaches compete, complement, or neutralize each other.

The degree to which coordination can be effective seems to be in direct correlation with the level at which these efforts are carried out. While there are many problems at divisional level, some District level committees are notably successful while those at the Provincial level seem to encounter few difficulties. In all fairness, the type of activity carried out at the Provincial level (i.e. exchange of information relating to planned activities) is less conflictive in nature than the more concrete activities being carried out at lower levels.

It appears to be rather difficult to coordinate the work by NALEP and the NGOs active in the Divisions, which are sometimes dominant. The Divisional Stakeholder Fora are often not capable of providing such coordination. An example is the VI-skogen project in Nyanza with limited coordination with the NALEP staff, more resources and appreciation by visitors than NALEP, and its own project staff providing agriculture extension. In fact, the internal NALEP assessment (2006) indicates that almost half of the field extension officers interviewed regarded the implementing commitment of the stakeholder committees as “poor”.

It appears that in areas with many other donor funded projects, the Stakeholder Forum does not function as well as in areas where NALEP is the ‘lead’.

#### **4.2.17 Study tours**

The impact of study tours are difficult to assess. The international studies taken place in Zambia (pro-poverty approaches) and Uganda (HIV/AIDS concerns) were reported as being considered as an eye-opener of those who participated. It is difficult to assess its direct impact on planning and implementation work.

A considerable number of farmers, men and women, have been provided opportunities to participate in study tours in the national context. It is reported that a total of some 2,500 farmers (including some 770 female farmers) have participated in study tours during the period 2002–2004/5. Study tours have been both inter- and intra-district. A number of these studies have been effective, as reported in interviews, with reported increases in knowledge of management but also in the introduction of new crops and livestock. Examples of these changes are introduction of cassava, tissue banana, dairy goats. At least at the surface, it appears that national study tours have had a considerable impact among a number of farmers in the NALEP assisted areas in terms of improved practice and investment encouragement.

## 5 Analysis of Impact

### 5.1 Relevance

Agricultural Extension can be viewed as an expensive luxury in a country where neither the size of the average holding nor the ability of farmers to generate sufficient income to become professional farmers, even with technological improvements, is a probable outcome. The average size of holding for the farmers that NALEP deals with is often under one hectare; thus qualifying them to be large-scale gardeners rather than farmers in most countries. While there are a number of promising technological innovations which have yet to be introduced in Kenya, it is not likely that these will catapult the small-holder into a world of commercial agriculture.

By definition, then, investing in agricultural extension in Kenya should be highly irrelevant, and yet it is not. NALEP methodology, both the application financed by Sida and the overall methodology which is the approach adopted by the Ministry of Agriculture, is not a traditional agricultural extension methodology; rather it is a methodology for community mobilization in areas where the predominant economic activity is agriculture.

This seemingly academic difference is, in practice, a small revolution in terms of reshaping something as dry and unappealing to the general public as “agricultural extension methodology” into an exciting possibility for organizing a concrete and bottom-up answer to poverty alleviation.

What about the perception, then, that agricultural extension advice and the expertise of agricultural technicians is usually co-opted by larger farmers? The agricultural extension advice offered by NALEP could theoretically be co-opted by larger farmers, although in the Kenyan context one needs to remember that even model farmers rarely have more than 1–2 hectares of land. Large-scale farmers in the commercial sector hire professional farm managers and receive technical advice from input suppliers.

The solutions that NALEP offers are, by their very nature, less interesting to larger farmers as they emphasize revolving schemes to own chickens and goats, and technology which aims to maximize output with little land and virtually no investment, but with a greater input of labour relative to land and capital. Thus large farmers are not shut out, but the service provides limited benefits interesting enough to co-opt.

### 5.2 Sustainability

The organizational basis for NALEP is one key to its sustainability. The technical content of extension may be changing, but what does not change is the need for the small farmer to be allied with other small farmers to face the challenges of survival. Often it is difficult to access credit on an individual basis, even some technological innovations may be too expensive to invest in for one farmer alone. Almost always, marketing arrangements must unite a number of small farmers to be able to produce the volumes that can command a decent price or even be interesting for the buyers to collect at all.

The most important foundation for the programme sustainability is the impact, profit and improved livelihood that the NALEP training may have on farmers. The assessment team did not come across any farmers that were negative to the NALEP approach and advice provided. The internal NALEP impact assessment reports that some 61% of all farmers are members of the CIGs. Most important is that most farmers/members (72%) reported that their agriculture production had increased considerably as a result of NALEP training. No less than 89% of the farmers interviewed claimed that they had acquired knowledge of improved technologies regarding production after the inception of NALEP.

71% of the 592 interviewed male and female farmers claimed that NALEP had assisted them in developing a surplus and profit from their farms.

### **5.3 Efficiency**

Measuring the efficiency of the NALEP approach assumes that there are potentially better ways to stimulate agricultural productivity in the smallholder sector than what NALEP has to offer.

In order to be able to say something about efficiency, the NALEP districts studied were compared to a district where NALEP was not present – Makweni district in Eastern Province. The district was chosen for its proximity and similarity to Machakos district, also in Eastern Province. The extension service in Makweni district has been supported by the MAP programme, financed by Danida. The MAP programme was terminated in December 2005 and the extension staff seemed to be demoralized by the lack of financing and complained that there were no means of mobilisation to reach farmers.

Only a superficial view of this programme was possible with limited field visits, but it could be observed that there are some important differences that can be used as a reference point for measuring the efficiency of the NALEP approach.

While similar in many aspects, the MAP programme differed from NALEP in two important ways: 1) it focused intensively on a relatively small Focal Area for a number of years; and 2) the programme itself provided matching funds for on-farm investments. It should be emphasized that one of the goals of the project was to teach farmers to pay for extension (and demand good service!) and to raise funds for development.

The impression gained from farmer and extension agent interviews is that the on-farm investment process was much quicker in the case of MAP than with NALEP, but that in the long run NALEP farmers who were able to access outside funding came as far or further than their Makweni counterparts, with the added advantage of having learned to access a more sustainable source of funds than a project with a limited life span. Because of the intensive and multi-year focus, MAP may be assumed to have spent considerably more per farmer to reach their level of achievements. In spite of the widespread complaints among the extension workers of lack of continuity in NALEP focal areas, it seems to be a cost-effective approach when viewed in a national perspective.

### **5.4 Risk Perceptions**

The original project document identified certain risk factors, later on called assumptions, that were considered relevant in the planning process of the NALEP programme. The two long term risk factors were “Socio-economic and environmental conditions remain favourable” and “Long-term funding to extension available”. These risk factors are still valid. However, the impact assessment strongly suggests that the NALEP approach, focussed on collaboration linkages, facilitation, poverty alleviation and mobilisation of farmers groups, has been and still is highly relevant in the previous and current rural socio-economic environment given the macro and micro conditions elaborated above in the report. Long term donor assistance is still a prerequisite for the sustainability of programme activities and further capacity building of the Kenyan rural extension service.

The two risk factors identified by the document for “short-term” achievements were “The Ministry structure remains conducive” and “Institutional support for necessary changes available”. Based on interviews, the impression of the assessment team is that the ownership and support provided by the two Ministries, Agriculture and Fisheries and Livestock provides a relatively solid institutional basis for current and future programme development and implementation. The current Kenya rural and agricultural policies, where NALEP Staff have been providing inputs, provide a robust policy foundation programme development.

## 6 Recommendations for NALEP Phase II

Many of the weaknesses with the original Phase I approach in NALEP were captured in internal monitoring and featured in the mid-term review of the programme carried out in 2004. These have been corrected and implemented in the on-going programme. There remain six areas; however, where more work needs to be done:

- the time span for working with a Focal Area;
- connecting farmers to marketing and credit opportunities;
- Research-Extension Linkages;
- stakeholder collaboration;
- approaches to vulnerable groups and HIV victims; and
- the phasing-out process.

### 6.1 Time Span for Working with a Focal Area

Working with poor people requires an initial period of gaining confidence. Poor and vulnerable groups tend to shy away from offers of technical advice, even in the relatively attractive and accessible form in which they arrive with the NALEP approach. They are not used to being viewed as a valuable part of the community, worthy of government-financed attention and investment. They lack such simple things as clothes which are viewed as decent enough for public meetings or the ability to sacrifice a day's income in order to attend a training workshop.

All of this means that, in order to work effectively in poverty alleviation, NALEP must allow itself more time for the more intensive initial approach in a Focus Area than one year. While it is admirable that the ambition is to cover as many areas as possible, this cannot be done in poor areas where the ambition is to contribute to changes in agricultural production, in the space of one year. Two years, or at least two full agriculture seasons, must be viewed as a minimum time: one year to gain target group confidence and achieve community mobilization and another year to achieve changes in agricultural production patterns and phase out direct NALEP interventions.

In order to gain confidence, staff have to remain in one place for a reasonable period of time. Constant transfers and new faces for the rural population do not lead to confidence. While it is necessary to rotate staff occasionally, this should be done after a number of years. In order to eliminate the temptation of individual staff to enter into private business arrangements, either these should be explicitly regulated or the rewards for doing the job made lucrative enough to discourage "improper" behaviour.

### 6.2 Connecting Farmers to Marketing and Credit Opportunities

NALEP provides a variety of robust and relevant technical packages which are appreciated and adopted by farmers. Updating packages is an on-going process and this seems to be proceeding well under current management in the extension service. It is possible that some opportunities are missed in the less than perfect linkages with the research institutions (see point 6.3 below), but none of the packages being offered are irrelevant or unsustainable.

The major impediment to further adoption is often the lack of knowledge about or access to marketing channels and credit for on-farm investments. NALEP work with stakeholders has, in some cases, been able to overcome this impediment but it is a serious brake on further development in the sector.

The impact of NALEP would be much greater if access to credit and marketing could be tackled in a systematic way by the programme. This does NOT mean that extension agents and NALEP should be credit or marketing promoters, but that there should be funds available for NALEP to facilitate farmer connections with the relevant institutions. Further training of the extension staff in marketing aspects and farm economics is needed. National study tours for both staff and farmers of all categories may be an effective tool to improve knowledge about best practice in marketing and farm economics.

### **6.3 Research-Extension Linkages**

Connections between research and extension are often problematic as their roles can appear to be overlapping. Most farmers are not in a position to petition researchers at the KARI regional centres, or other research institutions, with requests to address specific problems. Farmers rely on the extension service to relay their problems to the researcher. While it can be good for researchers to experience on-farm conditions first hand, in order to ensure a certain level of relevance in their work, the research service will have to rely on extension workers to screen and field test solutions together with farmers and on the farm. This aspect is particularly relevant in relation to crops that may be suitable for the poorer segments of the farming communities.

### **6.4 Stakeholder Collaboration**

NALEP has proved itself to be an innovative and resourceful mobiliser of farmers, but there are potentially serious conflicts between the NALEP approach and that of other donor-funded activities. Building up sectoral coordination and harmonization mechanisms is a slow and cumbersome process, even though some progress in the agricultural sector is being made in Kenya.

An attempt should be made to formalize the mandate of the Stakeholder Forum, using the mandate of the Ministries of Agriculture and Livestock and Fisheries to reinforce the coordination of all entities working in rural development towards a more efficient use of resources in this area.

### **6.5 Monitoring and Evaluation**

NALEP has been criticized for its lack of a systematic monitoring of activities. There are a number of lessons to be learned about various aspects of NALEP which may not reach an outside audience because of the lack of systematic information.

One important opportunity that has not been followed up on is the updating of the detailed baseline information gathered when the original Focal Areas were identified. In addition to general information about the Focal Area, individual farm plans were drawn up on a massive scale which could have served as a baseline for detailed studies on impact.

It is an urgent requirement that a comprehensive monitoring and evaluation system is designed and implemented. The M&E system should embrace activities and results related both to production and marketing as well as cross-cutting issues related to gender, poverty, empowerment, knock-on effects, etc.

### **6.6 Approaches to Vulnerable Groups and HIV Victims**

Commendable efforts by NALEP Head office and field staff have been made, particularly during the later part of the first phase, to design and implement various approaches to create a dialogue with the more vulnerable groups in rural areas and facilitate and mobilize these for their inclusion in rural and agriculture development. The approaches applied are very time consuming and it is doubtful if these approaches, still in the formation phase, may be scaled up to be incorporated in the national extension service.

It is recommended that NALEP should work further on improving the extension approach to vulnerable groups, possibly by further coordination or sub-contracting with relevant NGOs or faith-based organisations.

## **6.7 Phasing Out Process**

To achieve sustainability, institution building and long-term results requires, at an early stage, recognition of the importance of programme phase-out procedures for when donor funding may be scarce or completely absent. “Phase-out” refers to structured activities that bring external assistance to a carefully planned conclusion while laying a foundation for project benefits and processes to continue afterwards. Decisions about phase-out are often based more on budgetary restrictions or internal institutional processes rather than on the sustainability of particular approaches in the field.

It is recommended that an internal discussion is initiated by NALEP as to the consequences of a gradual phase-out of external resources and its potential influence on future effectiveness and efficiency of the various approaches supported by NALEP.

# Appendix 1 Kisumu District, Nyanza Province

## Characteristics

There are a total of 28 Focal Areas spread throughout all of the four divisions in the last seven years since NALEP's inception 2000/01. The DAO, who is also the NALEP District Coordinator, has only been in the Kisumu District for 5 months but has worked with NALEP several years in the Bondo District, Nyanza Province and before that in Nakuru. Bondo District is less central and less developed than Kisumu, but she believes Kisumu is slower than Bondo to accept and implement the NALEP approach.

Reception by farmers was quick with Nakuru farmers while it was slow with Bondo and Kisumu farmers who are relatively poor. In spite of the slow adaptation rate, reasons for which are listed below, the DAO describes NALEP in positive terms and feels that it has had both considerable impact and ownership among staff and farmers. In the beginning of NALEP officers had problems in the "interpretation" of guidelines, but she feels that the new performance contracts will mark a new beginning and improve performance of all staff.

## Reasons for low impact of NALEP

- Erratic rain fall. The last two years have been very difficult with very little rain.
- Strong division of labor between men and women, very little cooperation between the spouses – most farming is done by women. Rural men consider crops a woman's job. Rural men traditionally look after cattle and assist in bush clearing or oxen ploughing.
- The fishing industry is the focus in Kisumu. Little interest in agriculture despite the fact that the catches have decreased dramatically.
- Males are looking for employment rather than doing farming, but the sugar and cotton industry have since long entered a recession. Few employment opportunities available.
- Serious labor shortage as a result of HIV/Aids which has resulted in many widows, widowers and orphans.
- Farms have a small acreage which, in addition, is not secure. Land subdivision has lowered production area under each household which on average is 3–4 acres.
- Land is scarce and erosion is decreasing arable land.
- Inadequate farm tools as well as inappropriate hand tools for the difficult soils that may require use of tractor drawn ploughs.
- There is no major crop produced mainly for market or cash crop; sugarcane payment is poor.

NALEP has attempted to avoid opening Focal Areas in locations where other organizations are active. The FA is selected by divisional development committees. The period of mobilization in the Focal Area is widely viewed as too short. Most farmers experienced mobilization and met extension staff for the first time in their lives. The farmers were not used to having somebody, especially an official, sit down to listen to them and discuss on equal terms! This approach is time consuming and just when farmers were ready to start a more thorough dialogue, the staff had to move to the next Focal Area.

The DAO estimates that in order to facilitate an effective and sustainable change, the extension staff have to conduct at least three meetings with each individual farming household. The staff have to visit

the farmers individually in order to understand what “demands” each one may have. It takes considerable time to establish a demand process among the farming communities. However, farmers and representatives from the “old” Focal Areas visit the Divisions often for advice although it is rare that women visits the Divisions for advice, this is often done through a male or a group intermediary.

The Farm Specific Action Plans have been of little use for the division extension staff. The plans have rarely been used in their extension work. It is estimated that no more than 20% of the planned farming activities have actually been implemented. There is no information on the implementation, neither in qualitative nor quantitative terms. But the planning was not a waste of time and resources – the farmers may use these plans later on under more normal conditions. The planning exercise was important in order to mobilize both farmers and extension staff. Both become more aware of the opportunities and difficulties facing the farmers of all social and economic categories in the Focal Areas.

## **Stakeholder Forum**

The District Stakeholder Forum is called “Kisumu District Intersectoral Community Group”. The Group has been registered since 2003 and has opened a bank account. The Kisumu District Intersectoral Community Group consists of 16 members made up of farmers and some representatives from the NGO community. Only one member, the cotton industry represents private commerce. GOK officers are ex-officio members. The Group has not compiled an action plan for their work this year. So far one study trip has been conducted for the members. The Group plans to participate in the revitalization of the cotton industry in the District.

ALEIF supported by NALEP has benefited 12 groups in all the four divisions. The fund is managed by the stakeholder forum. Ksh. 254,700 has already disbursed to the groups by the forum. Borrowed funds have been invested in horticulture and livestock.

In 2005, NALEP provided “relief funds”, which was actually a loan to constitute a revolving fund for the District. These funds were provided to all four Divisions through the District Stakeholder Forum. The Forum was provided with Shs 500.000 and so far Shs 254.000 have been disbursed to the Divisions. So far, eight CIGs have received these loans, nothing has been repaid as yet.

The Division Stakeholder Forum must apply for funds by submitting credible project proposals to the District. It has been difficult for the Divisions to identify projects and submit credible proposals. Proposals are meant to be suggested by the FA Development Committees and submitted to the Division Forum. These delays suggest that many of the FAs are not active!

## **Farmer Groups**

The total CIGs since the inception of NALEP was not available. There were 110 CIGs in July 2005. Crops CIG are seasonal and many were wiped out by the drought. The Horticulture CIG near the lake is reported to still be functioning. Some CIGs in old FA can still be traced.

A number of CIGs have disintegrated, particularly those working with food crops. However, most members continue to improve management of the crops. A number of groups have also managed to continue with improved management in local poultry, despite the hardship and drought they have experienced. The more active CIGs are those working in horticulture. They are not seasonal and require extension advice continuously. The most active groups/members are those producing and marketing green amaranth, production and oil extraction of sunflower, production of sweet potatoes for food-security and market and those women’s group that are working with energy conservation/ fireless cookers.

There is a clear tendency that the Division staff and the FEWs are becoming more aware of what a CIG can or cannot produce and market, but there is still a tendency to initiate too many CIGs and follow the NALEP guidelines. The NALEP group approach is the only effective way of including farmers of different levels. The NALEP approach still embraces mainly the large number of “middle farmers”. They are often very poor. “The very vulnerable remain at home – they do not come out”. Only the more affluent farmers contact the DAOs office for advice.

During 2005 no less than 110 CIGs were initiated in the District. One division staff may have as many as 10 CIGs. It is very unlikely that the staff is able to provide sustainable advice to such a large number of groups. Several Focal Areas have NGOs working in the area. This is both a blessing and a problem. However, based on the demand from farmers belonging to a Focal Area, a large number of demonstrations have been implemented on farmers own field by the Division staff. The DAO has attended a number of these training events and demonstrations. Sixteen field crops and vegetable varieties have been demonstrated in the Focal Areas this season; varying from improved maize management, cabbage, sweet potato, onions, sukuma wiki, sorghum and cassava.

For the NALEP demonstrations, farmers have to pay for their seed. This is contradicted by the ordinary government extension approach outside the Focal Areas and some NGOs who provide demo farmers with free seed and fertilizer for demonstration purpose.

## **Research Extension Linkages**

The cassava virus has destroyed most of the crops of the old cassava fields. NALEP at District level has, after strong demand from the CIGs and individual farmers in Focal Areas, provided transport for farmers to Kakamega Research Station and to Busia District in order for them to buy cuttings from the new virus resistant cassava variety. An arrangement was reached with those farmers that they should provide cuttings from their fields to sell to other farmers in their communities, not only those with their CIGs.

Another FA has taken up sorghum, cocoa and mangoes after training, trials and demonstration through NALEP interventions. Kisumu FAs have had demonstrations on crops such as maize, green amaranth, cotton, rice, cabbages/dales, sweet potatoes and groundnuts. NALEP provides extension advice while other collaborators supplied some seed or plant material to farmers. In Bondo, the Nyambeke FA 200 farmers attended field days on Striga resistant maize, trials by Kibos (KARI) station on hybrid maize, improved sorghum and cassava there, afterwards up scaled the learned technologies for their improvements.

## **Kodibo Division**

NALEP was initiated in the Kadibo division where FAs were started in January 2000, CIGs were formed and training for members was carried out. The Division Team could not provide any information on CIGs, active or passive, neither how the Focal Area were functioning. No statistics and compilation were available. The impression was that few field visits were conducted, and the staff was not committed, a bit disillusioned perhaps as a result of the Tsunami (which resulted in a massive internal transfer of Ministry of Agriculture personnel). The Division team did not work much together resulting in weak dialogue among the members as to results.

FSAPs were reportedly developed for about 400 farmers in a Focal Area during the fourth year of NALEP implementation in the selected Focal Area; however the extension staff was reported to have been “chased away” by the local community for reasons which remain unclear. The Division team did not compile any Farm Specific Action Plans during the first year of NALEP work. This was done for all the other Focal Areas but the plans have never been used. Individual Farm Action Plans were buried in the divisional office under piles of other paper. The plans have never been used in their extension work. Very few farmers visit the Division office for advice.

The previous FAs were reported to show limited progress. All the previous FAs had a number of other projects being implemented in the area. This situation created competition rather than a complementary process. Other organizations provided handouts to the farmers in form of tree seedlings, fertilizer and seed which made it very difficult for the division staff to introduce the NALEP concept. In the current new FA for year 2005/06 there are 29 CIGs.

The enterprises CIGs were involved in include local poultry, cotton, and local cows upgrading through improved bulls. Most of the CIG that were formed to promote food crop production have become dormant after exit from the FAs. Those based on poultry activity have continued to operate even after exit from the FAs. Many FADCs became dormant on the exit of FAs. FSAPs were used by very few farmers; their use was estimated at about 25% in the area.

Some of the projects working in the Division are: VIRED International (Victoria Institute for Research on Environmental Development), VI-skogen Agro-forestry programme (Sida supported), OGRA foundation (HIV/Aids), OMEGA foundation (HIV/Aids) and SOLA International (energy conservation). Several of these NGOs are organizing food for work projects. VI-skogen has employed some 15 extension workers locally to carry out programme implementation. These extension workers are reported to carry out extension in agro-forestry but have very limited coordination with the division extension. There are 15 FEWs deployed in the Division. The Division also has an Agriculture Mechanization Unit that hires out tractors (two) for farm work. The local demand is very high.

The Division Stakeholders Forum has become dormant. It held its latest meeting in August 2005. No plans were identified by the Forum members. Since the three major seed companies left the Forum, Kenya Seed, SEEDCO and Western Seed no activities or meetings have taken place. One of the companies used to provide small quantities of maize seed to some of the CIGs during one season but this has stopped.

## **Orogono Poultry CIG**

The team was met by the members of the CIG in one of the member's farm. This CIG started its work in May 2003. Initially the number of members was 21. The group now has 15 members; 12 women and 3 men. Those who left the group had either too little money to participate in the group activities or they were business women with too many activities outside the community and too little interest in those activities that the group wanted to pursue.

Initially the group was intended only for women members but after a year they decided to change this rule. The members emphasize that the group and its work would never have taken place without the encouragement and training provided by NALEP extension, particularly the local FEW, a very experienced women, who had given very valuable advice and training to the women in the group.

The drought made most of the members very poor but all members had a few local poultry. They decided that they could improve poultry production and sell the poultry at the local market. This work would create both food security and an income. There is a considerable demand for local chickens, and buyers are constantly asking for them.

The members are involved with different type of activities and have received training in:

- Poultry husbandry
- Cotton growing
- Food crop growing
- Vaccination demonstration: New Castle and Fowl Pox

The farmers are applying the skills learned; they have a scheme of buying vaccines and administering vaccination to the community's poultry. This has an objective of improving their members' poultry as well as generates income from this activity. They buy vaccine in bulk of 720 doses for New Castle Disease @ Ksh.350 charge Ksh.5 per dose of the same. They buy 1000 doses for Fowl Pox @ 350 and charge Ksh.5 per dose. This is beneficial in that they have been empowered to raise poultry without losing them due diseases.

The CIG has two joint projects on poultry where they meet to learn from each other and to discuss any other matters concerning the CIG. The progress of the joint poultry project in two sites was given as below:

| Year | Site A     |       | Site B     |       |
|------|------------|-------|------------|-------|
|      | Production | Sales | Production | Sales |
| 2003 | 15         | 5     | 5          | 0     |
| 2004 | 25         | 10    | 10         | 0     |
| 2005 | 90         | 40    | 50         | 25    |
| 2006 | 50         | 0     | 70         | 0     |

*Farm gate prices for mature cock was Ksh.150 and mature hen Ksh. 85*

Case of sales report from Chairlady

|      |          |
|------|----------|
| 2003 | 10 birds |
| 2004 | 15 birds |
| 2005 | 20 birds |

The group has tried to establish a cattle crush with the assistance of the Vet Dept. The crush has been partly constructed by group members and other members of the local community and they are waiting to be provided with a sprayer by the Dept. They anticipate that the group members can buy the spray and spray the livestock owned by the farmers in the community and charge the farmers a fee.

The group members also want to start group work in cotton and rice but this work has not taken off yet.

The group members have been trained in general management of local poultry, feeding, and in vaccination procedures against Newcastle and Fowl pox. The business plan is to increase the production and sale of local poultry and provide vaccination of poultry to the local community on a commercial basis. Five members have so far constructed more sophisticated poultry house. Several members have started constructing house but had run out of money. It was reported that material for an improved poultry house may cost as much as Shs 10,000. The members who had constructed poultry houses had in fact been using material that was very expensive. They had ignored the extension advice of only using locally produced wood or grass.

The group has started a small vaccination centre for local poultry. Members buy vaccine in Kisumu and administer the vaccine on the local poultry. They purchase a container of 1000 doses for Shs 350. For every vaccination dose they charge Shs 3. Sometime they have vaccinated up to 800 birds against Newcastle disease and some 500 birds against Fowl pox. There is a considerable demand for vaccination against these diseases among the farmers: Women in particular are very concerned about the constant out-breaks of these diseases and the consequent death of most of their birds.

The group members have established two group poultry production units. The group started with some 20 birds and they now have some 130. In December 2005 the group sold 60 birds at farm gate to traders. The price was Shs 150 for a cock and 85 for a hen. The income from the sale was partly used for buying feed to the group poultry units and partly for the members to buy feed for their own poultry.

This group may develop into a centre of excellence for improved local poultry production. The women, not the men, are very vocal and determined and they have a solid business concept. Several women outside the group have been inspired by their work and taken up a number of activities propagated for by the group regarding improved poultry management.

### **Data on individual members of the Orogono Poultry CIG:**

The first four case studies are farms managed by women. They are examples of considerable expansion and improved management. Note that extension planning and recommendation regarding field crops was more or less identical for all these women.

#### **Case Study 1: Widow with a 1 acre plot**

During the planning the NALEP extension officer proposed she should produce 0.5 acre sorghum and 0.5 acre of improved maize. She was not able to buy certified maize seed – instead she focused on sorghum. She planted 1 acre of sorghum and harvested some 10 bags of 90 kilos each. She sold 5 bags for Shs 1.600/ bag.

She felt that the extension advice given was not adequate and adjusted to her small plot and poor economic situation. She had no money to buy expensive seed, she needed drought resistant crop, and she needed a local market. She has received a few chickens from the poultry group and she is a very active member working with one of the group's common poultry units.

#### **Case Study 2: Women with husband, 6 children and 2 orphans**

This woman complained that the NALEP extension had proposed that she acquire two Zebu cattle as a beginning for establishing some dairy production (this may have been her own idea that the extension just agreed to and included in the plan). She has not been able to purchase any livestock. Instead she has focused on poultry and expanded her birds from 8 to 18 and has sold some 40 birds since the plan was compiled.

She followed the original plan regarding field crops. She planted 0.5 acres of improved maize and harvested 4 bags. She planted 0.5 acre of sorghum and harvested some 3 bags. She planted a small plot of green grams and harvested 1 bag (kilos unknown).

#### **Case Study 3: Widow with two small children**

She is extremely excited about NALEP. She became inspired and started to take agriculture more seriously. "Extension has never talked to me before – I did not know they were here!" I have food now – I am much better off now since NALEP came".

She implemented all the planned activities: She planned 0.5 acre of local maize – produced 3 bags and sold 2 bags (Shs 1.600/bag). She planned 0.5 acre of sorghum, implemented the plan-produced 5 bags and sold 4 bags (Shs 1.600/bag). She planned inter-planting of Green Grams and implemented that which produced one bag (90kg); she sold the bag for Shs 2.500. She bought some local poultry when she became a member of the group. She is now rearing 15 birds. Since she became a group member she has sold at 45 birds.

#### **Case Study 4: Women and husband, 4 children and 2 orphans**

This younger woman is a driving force in the group – she is educated and speaks some English. Her household has a plot of some 1.25 acres. She planned (her husband was away) 0.5 acre of maize – implemented and produced 6 bags (no info on sale). She planned 0.5 acres of sorghum – implemented and produced 6 bags. She planned inter-planting Green Grams – implemented and produced 2 bags. She also planned and produced 1 bag of cowpeas.

At the time of the planning she had 8 local goats. She was recommended to expand goat production to sell as meat. She expanded and now has 22 goats for both milk and meat. Since she became a member of the group she has expanded her production of local poultry. She constructed an improved shelter and started to feed her birds properly. She expanded from rearing some 10 birds to 20. She has sold 45 birds since she became a member of the group.

**Case Study 5: Success in Livestock by woman farmer**

She started with 2 goats and has grown to 10 after 3 years. She started the poultry activity with 10, now they are 20 after 3 years. According to the Lady Owner this a great achievement and she attributes her success to having attended several NALEP supported trainings.

**Case Study 6: Woman farmer**

She has in total 45 cocks @ Ksh. 150 .She has also sold 22 goats @ KShs 1000

She said this was possible because her membership in the CIG and having attended training conducted by staff during FA activities.

**Case Study 7: FSAP Implementation**

Various FSAPs samples were tested on their owners. This FSAP was implemented as it was drawn up by the division officer in year 2003

The farmer reported that he got higher production from the plans than previously. Several cases were discussed with owners, and all reported some degree of implementation. The bulk of food produced was used at home with little sold. This ensured food security for family and improved nutritional status due the number grown.

## Orosa Focal Area

The FA was started in January 2000. It was selected to visit as a case study of dormant CIG after exit from FA. This CIG has been dissolved. It is a good example of the complex process of how members of disintegrated CIGs may operate – and leave sustainable impacts on individual members.

The Assessment team was met by the Orosa bull scheme CIG chairman Mr. Fredrick Okoth in his farm and given the following report:

The Bull scheme CIG was started in January 2000 with 12 members, all male, in the beginning, and grew to over 20 members at its peak. The group was initially formed under the auspices of the Kenya Finland Livestock Development Project. They had a common interest of upgrading their local zebu cattle, to increase their milk production. Men wanted to have their own “improved” bull, partly because it is good status and partly because they all wanted improved dairy cows, but felt the AI was very expensive (KShs 500 per service) and thus difficult to reach.

The group bought a pump to spray against ticks – members contributed 30 per cent of the price, the rest subsidized by a Finnish project. Members built a small shed and a crush pen for the bull with material provided by the project. Members planted a small plot with fodder grass at Okoth’s farm and Okoth was selected as the care-taker of the bull.

When NALEP as introduced to the area, members converted the group to a CIG and received retraining by the extension in improved livestock and dairy management. The bull was provided free of charge by the project at the same time as NALEP FA was introduced. Eight more members joined the group in order to up-grade their livestock into dairy cows. The CIG members were trained by the divisional team on all aspect of cattle husbandry with special emphasis on disease and tick control. Housing and feeding were also covered.

The bull was delivered and its recorded performance was shown as 51 services resulting in 47 calves of which only 4 were heifers and 43 were bulls, this was not considered satisfactory by members. The CIG charged Ksh. 200 per service, which money was used for the upkeep of the bull. The current rates for AI service in the area are Ksh.500 for GoK and 1000 for private services. The members of the group did not assist in taking care of the bull. The majority of the members were also members in other

CIGs. They were not very committed to the bull group. Okoth also joined other groups such as tree planting together with VI-skogen, and a commercial maize group. The bull died from East Coast Fever in 2004 and the group disintegrated.

The CIG is no longer active but Okoth has done well: He is now using improved maize seed and is using manure on some of his fields on his farm of 1.5 acre. As a result of his membership in the bull group he has one improved/mixed breed dairy cow that is producing some 7 litres a day. The mature grade cow is producing 7 litres of milk daily for 270 days selling @ Ksh.30 per litre with gross value of Ksh 56,700. A zebu produces 2 litres daily for 150 days selling @Ksh. 30 per litre with gross value of Ksh. 9,000. This supports the worthiness of the bull scheme project initiated by the CIG. The farmer sells 7 litres of milk daily and leaves 2 litres daily for family use.

He has four mixed breed young heifers. He has started to feed the livestock according to the recommendation provided by the extension. He planted Napier grass although this year there has been a complete crop failure because of the drought. He is not member of any group today. He feels that he can manage by himself. His greatest problem now is how to further improve his cattle in order to increase milk production.

## Winam Division

### East Koroa Focal Area

The FA was started in 2003. Discussions were held with Manyenya Community Farmers' Development Group. The CIG started in 2004 with 50 members: 29 female and 21 male, all reported to be active. The male members represent the entire household (husband/wife/ children), while most of the women are single, divorced or widows. This group functions as an umbrella organization for a number of CIGs in the locality. The Group itself is also registered as a CIG. Each member may belong to more than one CIG.

The Mayenya group consists of no less than seven CIGs, all formed at approximately the same time. Most of the members in the Mayenya CIG are also members in a number of the CIGs forming the umbrella organization. This is particularly the case among the men who tend to split their CIG activities more than the women. The CIGs making up the Mayenya are:

#### Membership in CIGs

| CIG | Enterprise              | Total | Women | Men |
|-----|-------------------------|-------|-------|-----|
| 1   | Sunflower               | 16    | 6     | 10  |
| 2   | Grain amaranth          | 22    | 12    | 10  |
| 3   | Orange – sweet potatoes | 30    | 11    | 19  |
| 4   | Poultry                 | 50    | 31    | 19  |
| 5   | Energy conservation     | 13    | 10    | 3   |
| 6   | Micro-fruit processing  | 20    | 15    | 5   |
| 7   | Cassava growing         | 9     | 4     | 5   |

*Other CIGs are on Soya beans and cotton growing*

Note that there are several others CIGs in the area, but they have not been encouraged to have any communication with those. The other CIGs in the area are: tomato production and marketing, health, rice, banana, Sukuma Viki, local poultry, cotton, onion and soya bean production and marketing. Most of these CIGs, including the Mayenga, have been badly affected by the drought this season and production has been very meager, sometime nothing has been produced.

This is a group where women dominate as members both in numbers and in their capacity as a driving force of the group. Women are very active in the group and as individual farmers. This is a group that may be regarded as a centre of excellence both regarding women's strong participation and their determination regarding their farming activities where both business and food security are in focus.

The DAO reports that members are very active. Both men and women approach the Division HO very frequently and ask for training and demonstration. The members are all concerned about the drought, and the erratic rainfall and weather conditions may be one major reason that they are deeply concerned with improving their farming methodologies to secure income and food security. Previous alternatives for male employment in the area like fishing, cotton or the sugar industry have decreased considerably.

The women in particular are capable of expressing the NALEP approaches and very proud of their achievements since NALEP inspired them to form the group. Members are very confident. They have a clear sense of business vision that they share with the men. A comment from the Division, "The widows are very hard working. They are the implementers among the women, the married women are much slower and too depending on their husbands" – this is the case in most places!

Several members of the community have expressed sincere interest in joining the group. Members claim that the group is "open" but applications will be judged on the basis of "good character". They complain that it is very difficult to attract the youth and younger members of the community to become members in the CIGs and the difficulties they have to encourage them to begin farming seriously. None of the poorest households are members of this group. They must form their own groups, perhaps based on other principles. They have no money at all with nothing to invest.

The Manyenya group was given some support by World Vision in the form of a pipes pump to start a small irrigation to grow horticultural crops. Local vegetables are being promoted, one farmer sold Ksh.3200 worth of produce from an area of 0.5 acre in five months. They have also been working with RECA – Relief and Environmental Care Africa which has assisted them by providing local poultry free of charge. NALEP has also provided the group with funds; Shs 30.000, from a Revolving Fund. It was reported that the group has purchased or was about to purchase more local poultry birds and seed.

## **Case Studies of Individual Farmer Impact**

All members have improved their production and feel that they have improved both their incomes and market capacity. Most have started "kitchen gardens" growing local vegetables and the majority have expanded these gardens from the original 10 m<sup>2</sup> and are now able to feed both family and sell some of their vegetables produce at the local market where there is a considerable demand for local vegetables.

All the members have also improved their local poultry production, particularly the women. Five widows in the group did not have any poultry and were given one hen and one cock as a donation by the other members. Most members are vaccinating their poultry – they are buying vaccine as a group. They have been trained in vaccination by NALEP. Previously most poultry died of Newcastle – today very few birds are dying of that disease.

NALEP extension training focused on disease control, vaccination, housing and feeding. This Farmer gave his progress after applying the skills he learnt in a practical situation. He owned 10 hens before NALEP, with time he has 40 in a shed having sold 60 birds at Ksh250 per bird realizing gross income of Ksh.15,000 in 6 months.

If all of the 50 members of the CIG kept poultry they could realize sales of Ksh 15000 every 6months, in one year the wealth generated by this single enterprise would total Ksh.1, 500,000. During the year 2003/04 NALEP extension funding for Winam division was Ksh.199, 015.

New improved Jikos (stoves) were introduced and some adopted them; they gave this report summarized here in few words: “Before NALEP I was using Ksh30 worth of wood fuel/day. With NALEP introduced Jiko I’m using Ksh15 worth of wood fuel/day.” This is a huge saving of Ksh5475 per year per household. In addition to the financial gain, women save 50% of the time and energy used for searching and fetching fuel wood and 50% of fuel wood trees are saved annually by every household that adopt the new Jiko.

#### **Case Study 1: Mrs. Esther Adwino reports from interventions supported by NALEP**

A typical representative of the Mayenga group is Ms Esther Adongo – before NALEP she was facing serious difficulties in feeding her family. She now has an extended “kitchen garden” where she grows tomatoes, sukuma viki and onions. In one year she has doubled the production compared to her original garden. She is selling vegetables for Ksh300 per month during the 6 months season.

She is a member of the group making fruit juice for the local market. They produce avocado juice. She makes 20 litres per week and sells the product at Ksh10 for 250 ml or at Ksh40 per litre. In six weeks of production she has realized a gross income of Ksh4,800. These are good examples of value adding, though in a very small scale.

She learned to make her own fireless cooker which, according to her, saves much money on fire wood. There is very little firewood in the area and she has reduced consumption of fuel by half. She has made and sold four units at 600 realizing Ksh2400, which regards as big benefits from her newly acquired skills. The material input per unit is Ksh300 – for each unit she gets a return on her labor input of Ksh300.

#### **Case Study 2: John Awino**

An enterprising member of the group is John Awino who he has encouraged members to follow his work in the group and as a farmer. He claims that NALEP has inspired him to do more than he ever imagined he was able to. He is understandably very proud of his and Mayenga’s achievements. Before NALEP’s introduction he was not interested in farming and had very little money and income from farming. The drought killed most of his crops and NALEP made him realize that he had to change and “go into farming as a business”.

He dug a water pan so he would have access to water for two more months. The vegetables were produced off-season which fetched a very good price at the market and gave good food for the family.

Sunflower was one of the opportunities that was flagged to the group; Awino learnt about it from NALEP and started to grow the same. He planted 0.25 acres and harvested 5 bags. He extracted oil from the 5 bags of 50 kg each getting 31.24 litres of oil at Ksh150 per litre, with a value of Ksh4686. He sold 20 litres and used the 11.24 litres for the family.

A total of 15 members grew the sunflower crop that harvested 75 bags; they sold 50 bags (of 50 Kg each) as a group at KSh16 per kg. realizing a gross value of Ksh40, 000. They retained about two bags per family for home oil extraction. Locally available extraction machine charges a fee of Ksh.3 for 2 Kg. milled. (6 Kg of seeds produces 0.75 litre of oil.)

#### **The success case of cassava resistant Cassava Mosaic Virus (CMV)**

One of the more important changes in the group has been the introduction of drought and disease resistant cassava. This was flagged by extension as a new opportunity to the CIG. NALEP assisted him and a group of 10 other members to buy cuttings at the research station KIBO in Kisumu. He purchased cuttings for Shs350, some 480 cuttings and planted these on 1 acre. A second group of 5 members were also assisted to purchase cuttings. All 50 members have now planted the new cassava variety. All 50 members had their old cassava destroyed by disease and drought.

Johnson Owino planted 0.25 acres with 480 cuttings of the “CMV” resistant variety bought from KARI-Kibos research station for Ksh.350. Farmers collected from the station incurring a transport cost of Ksh80. He harvested four dry bags of 70 Kg. He sold two dry bags (140Kg.) at Ksh17.50 per Kg. realizing a gross value of Ksh.4900. He stored two dry bags for home consumption. He also sold 1000 cuttings for planting to group member at Ksh1.0 for two cuttings and realized Ksh.500. More farmers had taken up the growing of this cassava and reported good results.

The same farmer above planted 0.25 acres after being introduced to Green Amaranth through opportunity flagging. He harvested 100 Kg., 80Kg at Ksh30 per Kg realizing Ksh2400. He retained 20 kg for home consumption. Eight farmers in the group planted the same crop at ¼ acre.

## Appendix 2 Machakos District, Eastern Province

### Characteristics

Machakos District in Eastern Province is composed of 12 divisions. The district covers 6,000 sq Kms of which 18% is arable land. NALEP started activities in the district in 200/01 and works in all of the 12 divisions.

The District team regards the NALEP approach as a success, particularly the group extension approach and introduction of efficient work programmes which are related to their budgets. There are currently 12 Focal Areas (FAs) ongoing in the district. The new FA approach embraces one location each in each division including locations like Athi River that covers 107,038 ha. The District team has noted successes of NALEP with the following areas:

- Dairy goat production in Kangundo and Mwala divisions
- Mango production in Mwala for local and export markets
- Commercial tree/fruit nursery privately owned and selling over 10,000 seedlings in Katangi division
- Traditional food crops grown/promoted to improve food security
- Local poultry production by CIG and the training on poultry vaccination against new castle disease (NCD) is carried out
- A dairy cattle promotion CIG in Kangundo division integrating breeding, feeding, bulking, transportation and adding value to milk and marketing
- The CIG have opened a milk bar as the outlet to their members' milk
- The CIG have opened an agro-vet shop to supply dairy cattle feed and drugs to their members
- Artificial Insemination scheme.
- CAPs for Kangundo, Kalama and Masinga are being funded for implementation by the Constituency Development Fund (CDF)

### Stakeholder Fora

Stakeholders' fora at the district and divisions have been initiated through efforts of NALEP. The District Stakeholder Forum was reported as being very active. It was formally registered in 2005. The committee has 25 members and has been meeting regularly three times a year. It consists of representatives from NGOs, the private sector, research and representatives from Focal Area Development Committees. The Forum has conducted a field study visit to Thika District to study how this district is approach the poorer and most vulnerable groups in society. The NGOs are the driving force of the committee. As a result at the dominatio among its members. Funds from the Agriculture and Livestock Enterprises Initiative Fund (ALEIF) have been allocated to Machakos district and the District Stakeholder Forum is selecting applications/proposals submitted from CIGs for funding. The total ALEIF 2005/2006 fund for Machakos is Ksh. 500,000 although no funds were reported to have been disbursed so far this year.

## Collaborators

The District has a considerable number of active collaborators. A number of these are active within the Focal Areas, old and new. Some of these collaborators active in rural development were reported to be:

- IFAD
- Plan Kenya
- SACDEP – Built tanks in Mwala division
- CDOM – Seed bulking for relief
- Germany Agro-Action – Food for work in water harvesting/soil conservation
- KARI – On farm trials
- Home Grown – Buying of horticulture especially French Beans
- HCDA – Promotion of horticulture production and marketing
- Cotton private ginnery – Buying and ginning cotton and marketing
- Dairy cooperatives – Buying and selling milk
- GOK ministries in the district

The large number of NGOs and CBOs active in the FAs has made the farmers more interested in approaching these instead of approach the field extension staff.

## Poverty and Vulnerable Group Identification

The District team is aware of the difficulties in reaching the very poor and vulnerable in the FAs. Ordinary extension work prior to NALEP had never attempted this approach. They emphasized that the poverty classification introduced by NALEP is helping them, particularly at the Division level, in their work in reaching these categories. The team confirms the difficulties in facilitating the active participation of the poorest in meetings and training activities provided by the extension staff in the FAs. The other areas are less concerned with this problem. They have discussed the possibility and actually tried to encourage the most vulnerable households to form their own groups, but the stigma among these individuals experience have made this process very cumbersome and difficult. However the new NALEP approach, visiting each of the poorer households individually, has made it easier to initiate specific groups for the more vulnerable. The teams both at District and Division levels have strongly promoted the pro-poor approach.

The large number of child headed households must still have access to relief food. These households have often no land and lack any agricultural skills and too young to carry out proper agricultural work.

The strategy to identify and reach the poor and the vulnerable has been initiated in the district and the district team has been trained in these issues. The criteria for identifying the vulnerable groups was established by the community and comprised of:

- Food shortage – Less than 3 meals a day
- Children out of school
- Poor housing (Poorly maintained and falling apart)
- Tattered clothing
- Sickness

Three categories were identified: Poorest, Poorer and Poor. A survey was conducted covering house to house to document the resource inventory of these households. After sensitization the poor/vulnerable formed self help groups. Thereafter, entry points for appropriate technology (low purchased inputs; minimum initial capital investment, and low energy/labour input) were identified. Such enterprises included:

- Local poultry improvement through training on housing, disease control, planned feeding and protection from predators
- Bee keeping for honey production through training and introduction of Kenya Top Bar Hives (KTBH) which are hung at man-height rather than the traditional ones which are hanged on tall trees requiring skills and strength to manage and harvest.
- Cassava growing requires less weeding, can be stored in the ground and dry form on harvesting.

## **Farmer Groups**

The district team further reported that several CIGs were started by the farmers in all FA. Some were reported to be active while others were dormant especially those CIGs which were not based on a marketable commodity. The number of CIGs was not reported by the team. The District team reported that the most successfully CIGs are those focused on:

- Dairy goat production – a number of CIGs have been provided or purchased one buck – food security has improved as a result
- Production and marketing of grafted mangoes – a number of local traders are purchasing the crops and the crop provide good profit to the farmers
- Fruit tree nurseries for commercial production
- Traditional food crops, mainly drought resistant cassava and sweet potatoes
- Improved production of local poultry
- Dairy and milk production

These groups are active despite the fact that most members have experienced very difficult drought situation. The district team acknowledged the positive contribution of NALEP interventions. These included:

- Budget based on quantifiable work plans detailed up to division level.
- Reliable resource allocation without cutbacks or withdrawals.
- Good financial accounting procedures.
- Advocating for development committee at focal areas
- Support to CIG approaches
- Advocating for promotion of strong stakeholders for a at district and division levels for effective collaboration.

## Kangundo Division

### Characteristics

Kangundo division covers 139 sq. Km and has a population of 91,288 people as per 1999 census. It has 12 locations and 21 sub-locations. It has two rainy seasons; in October- November the short rains come which are regarded as more reliable and adequate to support a crop such as maize. During March – May come the so-called long rains, they are less reliable and inadequate and are only suitable for farmers planting quick maturing crops such as beans. This year all areas have been experiencing severe drought.

### NALEP activities

The division reported that they started the FA approach in the year 2000/01. Six Focal Areas have been initiated in this Division. The Division team has produced a map showing the position of all the FAs and team members were able to provide very clear and enthusiastic analysis of the NALEP approaches.

The team reported that the most successful of the NALEP approaches have been the group extension approach combined with a comprehensive work programme and budget for all NALEP extension activities. The work-programmes also allowed the decision staff to effectively utilise the bicycles they had been provided by NALEP. This form of planning and implementation had never been done before. Previous system was very top-down both in planning and budgeting.

The team expressed some shortcomings of NALEP as:

- The FA officers interaction period of 12 months to attend to farmers and CIGs as short and extension team exits when the farmer/CIG are taking off and not well established. Farm Specific Action Planning (FSAP) approach was highly time consuming leaving the officers with little time in promoting CIG and training them. This work, it was estimated, took some 30-40 per cent of their time during the introduction of the Focal Areas. As the NALEP funds arrived some 3 months late, the actual training in the Focal Areas was drastically reduced from intended 1 year to perhaps 8 or 9 months.
- FA demanded a lot of extension staff time while non-FA demands for the same services were pending. NALEP work required a very substantial part of the time and other programmes and areas had to be left out because of the shortage of staff and time. It was said that the team members at Division level could not meet the newly introduced Performance Contracts.
- IFAD and ADB approaches with respect to providing demonstration inputs and supplementing expenses of staff, leaders and trainees may be in conflict with NALEP procedures.

### Farmer Groups

The District team reported that no less than 109 CIGs have been started in the Division since the beginning of the programme. The team considered the livestock groups more successful than those working with field crops. It was estimated that some 50 % of the livestock groups had continued to work together as groups either in marketing or in their work with improving their herds. The field crop groups had often dissolved after the initial season. But members continued to follow the practices taught during the initial year of NALEP work in the FAs but did not cooperate much in relation to marketing.

The team reported that because of the demand for their services had increased dramatically, it was impossible for them even to cover the too large number of CIGs that were emerging in the FA. In fact, the staff regarded the number of CIG as too many. Many farmers were not seriously considering

working with the tasks that the CIGs were intended to do. Many farmers joined these groups because they expected to be provided with additional resources and “hand outs” and had left them disappointed.

Because of the drought, members tended to become less active and farmers’ attendance rates were being reduced. It was noted that women have particularly been given considerable opportunities to actively, in their own rights, participate in extension training and these women, including a number of widows, have expanding their production much faster than many of the men.

## **Collaborators and Stakeholder Forum**

The team reported that only a limited number of NGOs were active in the Division. However, both IFAD and ADB were active in some of the Focal Areas. It was reported by the team that they felt that approach implemented by ADB was more efficient for the extension staff as this programme also provided considerable subsidized resources direct to the farmers. IFAD provided higher better allowances to the extension staff as well as allowances to farmers coming for training, contrary to the NALEP approach. The Division Stakeholder Development Forum was not considered active. The committee consisted of some 18 members, but the committee lacked a clear focus and had not developed any specific action plan.

## **Kyevaluki Focal Area**

### **Ukulu Vulnerable Self-Help Group**

This group was initiated in 2004 and is one of several self-help groups in the area started by NALEP. It consists of 82 members of which only 10 are men. The name “Ukulu” means “aged.” Most members are very old and disabled and the majority of the women members are widows. The women tended to be more active than the men in the group. The CIG had provided new economic and social possibilities for the women. Women have been fast in grasping these opportunities to voice their opinions and to create a better future for themselves and their children.

Most members were very poorly dressed and claimed that the activities started by the members of the group has made them proud and made them feel as ordinary citizens and members of the community. It was reported that there were some 40 very poor households in the area that had not joined the group. These are encouraged to join but are still very hesitant to do so, probably because they do not want to show and confirm their poverty.

The chairman was a relatively young man that was encouraged by the chairman of the Focal Area Development Committee to join the group. The committee is considered very active and was trying to encourage the members of the various CIGs. He was well educated having a certificate qualification in Animal Health but without a job or established private practice.

The chairman reported to the visiting team the whole process they underwent before they formed the Ukulu vulnerable group. Visits were made to their home, counselling and dialoguing conducted by a team of specialists. Thereafter an inventory was undertaken to establish their resources by extension staff and they were finally called together to discuss the opportunities available and within their means. Together with the extension staff, the group identified the following opportunities as the starting point:

- Local poultry introduction/ procurement and better management
- Sweet potato growing
- Cassava growing

- Merry-go-round where each member was contributing Ksh. 5 every Saturday, the funds raised every week given to a member to buy one hen and cockerel.
- Dairy goat introduction

The group started by receiving cassava cuttings and sweet potato seed via NALEP from the EMBU/KARI research station. The drought destroyed most of their crops. The extension staff then advised them that they should focus on local poultry and this has proven to be a success. The members have managed to contribute, since the start of the groups, five Shs each every week. Some of the members have received this money as gifts from relatives but several are so poor that they have not been able to contribute anything. The money has been used to purchase local hens and one hen has been distributed to all members. It was reported that the overall majority of the members now have a few hens and nobody has failed to pay the required money. The group has received training in Newcastle vaccination and improved management of the poultry. Several members have now purchased more hens in order to improve their incomes. Five members are reported to have more than five hens as a result of their group work. The poultry purchasing for members was reported completed when all the 82 members were covered by December 2005.

The group is now on the second project of dairy goat promotion for milk production. They are currently contributing weekly in anticipation of raising enough funds to purchase a dairy goat to each member. The challenge they reported is big but they said they were determined and committed to this dream of changing their life through access to goat milk both for household consumption and to sell on the local market.

The self-help group received food relief but since the group was started, only a limited numbers of its members have to rely entirely on relief. Still, most members of the group are entitled to relief food and many are also provided with relief.

The self-help group had expanded its activities during the last months. The contributions of 5 Shs were continued among the members and the group intended to purchase a dairy goat/buck in order to upgrade the local stock and later on provide goats to all members. It was reported that approximate half of the members own one goat.

The group has also initiated a table-banking scheme. This additional and rather complicated activity may very likely leave out some of the poorest members and result in the disintegration of the group.

### **Kyevaluki Joy Fruit Processing Self-Help Group**

The chairman reported that they started the CIG after NALEP sensitization meetings and as a result of the introduction of FA in this area 2004/5. The group had initially some 30 members but the membership is now reduced to 20 active members of which 18 are women.

They reported that they process their fruits to add value and to avoid perishability during peak seasons for their fruits since they do not have cold storage. They make pawpaw jam, avocado butter, tomato and mango jam. Together with some 10 other CIGs they are renting a small house/shelter nearby the local market centre where they process the fruit into jam.

Since they are still in the initial stages, they are making 20 small containers and 30 medium containers per week. The empty containers are purchased in Nairobi and cost them Ksh 10 for the small ones and Ksh 12 for the medium ones. Sales prices realized are Ksh. 50 for small and Ksh.100 for medium plastic containers and are sold either at the local market centre or to external buyers. The market is considered to be available for their products. They buy only from their own members and pay them the same price as the local market centre and manage to produce jam throughout the year. Fruits worth

Ksh 30 go into the processing jam for the small container while fruits worth Ksh 65 go into making jam for medium container. The group anticipates it makes a profit of Ksh 15 from selling small container and Ksh 25 from selling medium container jam.

The members have so far not shared the rather limited profit they have been able to accumulate. They have established a bank account and managed to accumulate only some 3,300 Shs. Each member is required to save 50 Shs per month as contribution to the group. The profit each member may derive from their work processing the jam within the group is virtually non-existent. Despite these constraints the group plans to diversify their production into juice, sweets and potato chips.

None of the women participating in the group have work with “serious” farming or commercial processing before. They were exceptionally proud of their work and felt that the group work would have a considerable impact on their future abilities to make independent decision and expand their economic opportunities in other areas of life. Despite the enthusiastic participation of the group members, it seems rather unlikely that this group will be able to continue its activities without improved business planning and management.

They are diversifying their source of income to concrete making from natural stones; so far they have 28 tons of concrete ready for sale. They reported that they expect good profit from these activities. This is a strategy to use their otherwise idle labour during the dry season to generate income for them selves. The group has taken interest and identified the orphans in their neighbourhood and they are offering them assistance from their limited resources.

## **Ndunduini Focal Area**

### **Mulingana Dairy Cows and Goats Self-Help Group**

This group was initiated in the year 2000. It consists of 38 members-16 men and 22 women. The chairman of the group is a man who was also a representative of the community in the focal area development committee. The activities of the group include:

- Dairy cows, goats, poultry farming.
- Orphans care
- Youth counselling
- Organic farming and double digging
- Farming education
- Water harvesting

This group was one of the six CIG formed after the initiation of NALEP extension service in the area. The members reported to have been trained in general farming in appropriate systems of growing vegetables, maize and beans, zero grazing for dairy cows and goats, Newcastle vaccination for hens and improved management of poultry, water harvesting and soil management. An exchange visit was organized by the members to Nyeri Wambugu farm where they bought a buck. A total of 23 members have been bought each a goat from the group’s contribution and the majority of local women are keeping local chickens.

Originally the group was made up of 45 members but the rest have left the group especially the poorest members and the old because they are not able to contribute to the group’s activities in terms of cash and labour.

The group has benefited twice from the constituency AIDS committee funds totalling to Kshs 350,000 on orphan support and HIV/AIDS awareness. The money was used for supporting 23 orphans in terms of school uniform, secondary school fees and buying food. Facilitators were called upon from public health office from Machakos district hospital and Kangundo on HIV/AIDS awareness. The members reported that HIV/AIDS has impacted heavily on agriculture in terms of increased women's workload as they take care of the sick and hence neglecting food production. They have experience loss of work labour on the farms and increased number of orphans. Stigma and discrimination is very rampant in the community towards people living with HIV/AIDS. They reported that HIV/AIDS would be a source of shame, neglect, alienation and the big question would be from where one got it from. They reported that no one in the group or in the community had openly declared they had HIV. The relatives who were infected with the disease were taken care of at home secretly.

The women reported they benefited also from the labour saving technologies of fireless cooker and making of energy saving jikos.

The activities of this group are so many that it appears that they are leaving behind the poorest and vulnerable members. They could be refocused to create impact among their members. However, the women reported that their incomes have improved. They charge Kshs 2 for poultry vaccination. Meat, eggs and milk are now available at household level and some cash from the sales of fireless cooker.

The men reported that poverty has been alleviated to some extent through growing of vegetables, fruit trees like mangoes and paw paws and keeping of animals. They recommended that they would require further training in medicinal plants for animals and to spray the plants and more techniques in bench making and drip irrigation technology.

The group's other requests were funds for vulnerable groups in the community and rural credit schemes to improve their farming.

## **Ndunduni Focal Area**

### **Dairy Cattle Self-Help Group**

This group was started in March 2003. It has 76 members. The chairman of the group is a retired schoolteacher. The group is registered with the department of social services. Each member contributed Kshs 20 for registration. The group is run by a committee appointed from within its membership. The group has a dairy shop where both members and non-members sell their milk. The set price for the milk is Kshs 25 and sells at Kshs 30. Members are paid on the 2nd of each month without failure.

They have hired a shop and bought equipments for the dairy and have hired a worker from outside the membership. At the end of each year members are given dividends which have motivated the members to buy grade cows. The self help group has expanded its activities to include an agro vet shop. The divisional agricultural officer linked them to a supplier to cut costs on transport. Here the members are able to access animal feed through credit, which is deducted from their monthly milk sale. Their plans now are to buy their own shop.

This is a successful well-managed CIG that has made a difference in the lives of its members. None of the members have dropped out of the group since it started. They are still 76 and makes sure no one is left behind because of non-contribution of funds. They always give themselves a grace period of several months to raise the required funds.

## Appendix 3 Kakamega District

NALEP has supported the district since 2000/01. To date 42 Focal Areas have been supported and all seven divisions have on board since NALEP inception. The achievements of NALEP include shifting activities such as planning to the farmer's level, mobilization of farmers' resources, and sensitization of farmer on the availability of collaborators within their locality and beyond. Government extension staff is working closely with other extension services providers from NGO or private companies. Recently NALEP has expanded coverage by targeting of 2000 farmers in a Focal Area, instead of 400 as previously. The funding of the divisions and follow up of the spending of funds is positive.

The district team regards the challenges for NALEP as being:

- Half of the time is spent on mobilization, half on actual training.
- 3 days training of FADC has had little or no impact.
- Phase one required a lot of paperwork.
- No free farm input like some other projects, the expectation from farmers was that they wanted handouts.
- Phase one had no vehicles or motorcycles.
- Pure training was not popular with farmers initially but they later they appreciated it.
- Rotating FEW from FA to the new FA leaves the farmer with no reference person

### Shinyalu Division

The District team presented an overview of how they have tried to identify and reach the poorest and most vulnerable people in the Focal Area. Participatory Analysis of Poverty Livelihood Dynamics (PAPOLD) in Wamazalala village was done and the criteria of defining the different categories of poverty were developed by the community members themselves:

- *Category A*, the well off: Eight per cent was in the well off category where children go to private primary schools and the family has 3 meals a day. The farmer has a large farm and is able to buy additional plots of land and they have a permanent house in the town. The farmer easily takes up leadership positions; he usually owns a car, runs a big business in town, hires casual workers and can afford farm inputs easily.
- *Category B*, the able: 115 farm families or 84.5% were in the able category. They grow tea, keep local poultry breeds, buy and own such items as a TV, mobile phones, and/or radio. Their children go to local primary schools and they have developed farm plots.
- *Category C*, the poor: 20 farm families or 14.7 % were in the poor category. Families in this category are landless, or have underdeveloped land, tattered clothing, irregular meal, limited medical access, lack of basics; grass thatched and poorly maintained homes.

The study went on to analyze trends in poverty, over a period of twenty years:

|    | <b>Time and status</b>           | <b>Farm family</b> | <b>Percentage %</b> |
|----|----------------------------------|--------------------|---------------------|
| 1A | Before poor and now poor         | 14                 | 10.3                |
| 1B | Before poor and now not poor     | 42                 | 30.9                |
| 1C | Before not poor but now poor     | 8                  | 5.9                 |
| 1D | Before not poor but now not poor | 72                 | 52.9                |

## **Ilesi Focal Area**

This Focal Area started 2004/05 with 1790 farms covering 6,900 ha. The FADC chairman and other members received the Assessment team. The umbrella CIG had several other groups, some members belonged to more than one group. Such groups were producing, banana, sweet potatoes, tomatoes, local vegetables, maize, raising of local poultry and bee keeping. The CIGs help members to search for markets within the districts, collect and hire vehicles to transport produce, or pool existing vehicles to do the same. The CIG Chairman negotiates prices.

### **Example of a Beekeeping Group**

Bee keeping is being started by members; Langstroth hives are being constructed on site and sold first to members. Each bee hive is sold for Ksh 1,800 to members and for 2,500 to non-members. Ten local hives have been acquired through the loan system that NALEP supports. One farmer has harvested five litres of honey last month and sold four litres @ Ksh 190 while one litre was used at home.

### **Example of a Local poultry keeping group**

The farmers' reported that they had been trained on poultry housing, feeding and disease and pest control. One farmer reported that she has benefited from the training in that before NALEP she had two hens and one cock. Her poultry have increased to 40 hens. She had sold 10 hens for Ksh 200 a piece. Another female farmer is offering poultry vaccination services against New castle disease and Fowl pox at five shillings per hen.

### **Example of a Maize farming group**

A group reported that they have been coordinating their maize production after the training during the FA times. They have bought farm inputs and sold the produce together. They shared transport and negotiated for favorable prices with maize buyers. Last season they sold together 40 bags of maize from 10 members for better prices

## **Ikolomani Division**

Butsetse Focal Area was started in 2002/03 with 396 farms covering 270 Ha. The farm visited was that of John Muinano in Butsetse FA. Together with the wife they welcomed the team in their home and gave a brief history. John said he had retired from the Government service as District Development Officer and taken up small scale farming to support his family. John is the Chairman of the Vihiga district stakeholder forum. On their farm they grow fruits such as passion fruit, mangoes, bananas and avocados.

Passion fruit growing was the most profitable the farmer reported. He had 56 stems harvesting 200 fruits from each stem per season. The families also have 3 heads of improved cattle, some bee hives and 58 local poultry. John said that the potential for fruit farming in the area was very high and profitable. Together with other passion fruit grower they have formed CIG to promote passion fruit commercial production.

## Appendix 4 Makueni District, Eastern Province

### Characteristics

Divisions – 17

Locations – 63

Sub locations – 187

Population – 912,681 people (projection for 2005)

Arable land – 6,245 sq. km.

House holds – 144,320

Range land – 1720.6 sq. km.

Altitude – 600 m to 1,900 m above sea level

Poverty – 60 to 66% in rural areas

### Major Agro-ecological zones

- Mixed agriculture zone where dairy farming is balanced with food crops and fruits growing
- Agro pastoral zone 1 where livestock are kept in balance with fruits growing and limited food crop growing
- Agro pastoral zone 2 where livestock is the major activity with limited growing of fruits and food crops

### Technical Activities

Technical staff combined with Agriculture and Livestock expertise number 124. Other resources include two (working) vehicles, 13 motorcycles, one typewriter, two computers, one printer and two telephone lines in the district and division offices. Of these combined resources the Livestock departmental resources have 39 technical staff, five motorcycles and two serviceable vehicles but now not mobile due to the fact that so many staff have to share the few working vehicles.

Staff and farmer activities include demonstrations, workshops, field days, barazas, study tours, individual farm visits, group visits, farmer field days, and farmer field schools based on the FAO model.

Staff activities include planning meetings, professional group meetings, administrative meetings, supervision and monitoring.

Extension approaches include CIGs, individuals, extension groups and Farmers' Field Schools. Strategies for reaching the most vulnerable members of the community include those practiced by DSG – Arid land (RMP II) where the vulnerable are identified by the community and proposals are suggested and funded. The District Poverty Eradication Committee functions also to forward groups' proposals to the Poverty Eradication Commission.

Extension- research linkages:

- Farm trials (KARI collaborates on farm trials in Kiboko and Katumani satiations and is funded by EU)
- Extension-staff-stakeholders activities (IFAD in seven out 17 divisions, promoting traditional food crops, development of small irrigation, Extension-Research linkages and support with local initiative funds)

- INADES (an NGO working in some divisions supporting training and extension, covering agricultural issues)

HIV/AIDS and Gender Focus is a crosscutting issue in all the programmes and there are assigned officers to deal with this.

## **Other agricultural promotion activities operating in the district**

1. MAP/DANIDA is a multi- sectoral rural development programme run much along the lines of NALEP, supporting extension service field work and providing matching funds for farmers groups and individual investment from 1995 to 2005.
2. MEDP/DANIDA is a district wide, agri-business support but was closed down June 2005. Agriculture Business Development (ABD/DANIDA) is new (2006) promoting capacity building, private services including extension and linkages with financial service providers.
3. CCSP/DANIDA is a multi sectoral programme of five years. It uses the concept of the Focal Area. VDC-sub sectoral management committee deals with handicapped and orphans and supports their housing, in addition to livelihood support programmes.
4. DASS/ DANIDA is a new programme with special emphasis on capacity building and support to changing farming into business, promoting private extension service providers and supporting public extension service. DASS proposed coverage is four locations in four divisions.
5. KAPP community mobilization started in January 2006 emphasizes capacity building, changing farming into business, promoting private extension service provides and supporting public extension service. KAPP covers four divisions in four locations.
6. ASAL based rural livelihood support programme is supported by (ADB) and started 2005. They are looking at the most vulnerable to be given grants. ASAL proposed coverage is six divisions along Athi river corridor.
7. Arid Lands Resources Management Programme (II) is a special programme with broad mitigation initiatives.
8. Heifer Project International supports a dairy in Kibwezi.
9. FDA is support for four years with a partner's budget share of Ksh4.2m.
10. Njaa Marufuku Kenya (NMK) supports farmers groups through funding proposals with a district wide coverage.
11. AMS- construction and de- siltation of water pans.
12. IFAD operates in seven divisions out of 17 divisions; promoting traditional food crops, development of small irrigation, extension-research linkages and support with local initiative funds.
13. ADP operates in a total of 12 divisions entering 3 divisions per years.
14. AMREF provides health care training.
15. World Vision multi-sectoral rural development programme covers one division promoting seed bulking for various crops.
16. ARID-SAK is working in two divisions supporting seed bulking, crop demonstrations with bias on mango production.

17. ICRISAT works in five divisions promoting production and marketing of pigeon peas especially linking farmers with buyers.
18. CCF works in one division promoting fruit trees seedling bulking.
19. Sustainable Community Oriented Development Project (SCODEP) is district wide promoting fruit trees and cotton through training and provision of credit to farmers.
20. K-Rep is working district wide with agri-business marketing promotion, credit, promoting FSA, capacity building.
21. KWFT is district wide and provides credit to farmers.

## **FDA (Focal Development Area) approach successes**

- Staff capacity building was excellent
- methodology the community based approach was strong
- Cost sharing and grants to farmers allowed rapid progress
- Multi-sectoral nature appreciated
- Concentrated support to farmer focal area for four years seen as a reasonable period of time
- High participation by farmers in all stages possible with bottom-up planning, budgeting, implementation and monitoring methodology

## **The FDA processes**

The FDA Selection was done through the established district structures i.e. District Focus Strategy for Rural Development. The criteria for selection defined in the project document included such factors as where no another major partner is operating, and where poverty is high. Planning and implementation activities were identified and supported in cooperation with the sectors listed below and then technical support for planning and implementation were provided by the same sectors:

- Agriculture
- Livestock
- Veterinary
- Social services
- Water
- Adult education
- Forestry

Coordination was done by the Project Management Unit backed by District Technical Committee (DTC) made up of the above GOK departments. A Monitoring and Evaluation team was in place. At the division level coordination was through a committee with farmers' representation by their leaders of Focal Development Areas and by GOK officers. Farmers' institutions included: CIG, FDA-Committees, Monthly scheduled harmonizing committees and Community project committees.

Achievements reported included:

- Well trained personnel
- Transparency improved

- Mobilization of communities
- Community participation
- Animal health assistant trained
- Mango orchards other fruits initiated
- Water harvesting structure done
- Irrigation pumps procured
- Dairy goats procured
- Bee hives procured bee keeping supported
- Honey processing/value adding supported with training and equipments
- Water: domestic and for livestock promoted
- Seed bulking supported
- Farmers Field Schools opened: farmers' supported FFS were established

Some sustainability indicators include:

- Changed attitudes by community member
- Cost sharing promoted development of skills resources mobilization including raising funds
- “Ownership” of project increased, maintenance improved and vandalism reduced
- Community continuing to finish what may have remained
- FAD structures in place continue to network with other stakeholders
- CIG: still active their bank saving account growing.
- Incomes have improved
- Nutrition has improved

#### **Case study: Mrs. Masika's Farm**

The visiting team was received by Mrs. Masika who is chairlady for the FDA and Mr. David Musila, the DEC for Kaiti division. Mrs. Masika explained the functioning of the FDA and the activities carried out on her farm. Mr. Musila gave additional details about neighboring farms. The farm is in Kanmoni FDA, Kilala location in Kaiti division.

Farm activities include:

Dairy enterprise feeding on planted fodder – sells milk to Makueni dairy at KSh24 per litre (15 litres in October and 25 litres in November–December)

Poultry Keeping

Fruit growing (mangoes, oranges, avocados)

Banana growing

Horticulture production

Question: What will happen to farmers now that MAP is ending?

Answer: “MAP will remain here because they taught us” expressed by Mrs. Masika with confidence and pride.

## **Weaknesses Identified**

The withdrawal of vehicles in the transport pool at the end of MAP has rendered much of the extension work 'immobile'. The same is true of the withdrawal of the motorcycles pool at the end of MAP.

There were many small fragmented investments during MAP and cost sharing which had a limited rate of implementation during MAP.

## **Benefits from MAP to the FDA**

FDA started in 2003 during which period the farmers have been trained in many aspects and introduced to new technologies on their farms. Fifty cocks have been distributed to FDA members to upgrade their local poultry and 40,000 assorted fruit seedlings have been raised in nurseries, some planted by FDA farmers and others have been sold. Banana raised tissue culture technology procured and distributed to 100 farmers each receiving on average of 20 seedlings; these banana suckers price was Ksh.50 but sells now for Ksh90 due the great demand. Farms are still buying without FDA support.

## Appendix 5 Kisii District, Nyanza Province

### Characteristics

Kisii central covers an area 680sq Km and is administratively divided into 7 divisions. Average population density is 866 people per sq. km. Average holding per household are 0.6 ha. The district has many agro-ecological zones with an average altitude of 1420 m above sea level. Mixed farming is the common practice. Poverty, based on the one USD per day criteria, ranges between 39% in Kisii town and 60% in the rural areas.

NALEP started in January 2000 covering one FA in each of the seven divisions to date. A total of 49 FAs have benefited from NALEP since its inception. Fifty-five technical officers are offering extension services to farmer in the district, this gives 1: 2552 staff to farmer ratio. Several Collaborators are active in the district: ICIPE, WEMA, Forest, K-Rep, CHOS, ICRAF and private farm input companies.

### The District Stakeholder forum

The Kisii District Rural Development Consortium was started in 2004, its membership is comprised of agro-vet, farm input stockists, farmers and collaborators. The registration fee is Ksh100 for small organizations while large organizations pay 10–15,000 to the consortium. Twenty-five members paid up while 60 attend meetings.

The members of the forum plan together exhibitions, shows, and field days. Feed companies reach out to farmers paying fully for the invited extension officers, so as to promote and sell their products. COSMOS, Bayer Science, Kenya Seeds participated in two field days. On-farm trials are done jointly with farmers, private companies and agricultural extension. KARI has also participated in on-farm trials.

### Planning Outputs

During June 2005 CAPs (Community Action Plans) have been developed in seven divisions; six live-stock, 18 crop based CIG, four extension based and two others. Annual and Semi- annual reports are compiled by DAO on a regular basis.

FSAPs have been developed for 700 farmers at the rate of 100 per division. Some CIGs have written proposals which are then funded by the Constituency Development Fund (CDF) to protect water springs, build/rehabilitate cattle dips, improve roads and bridges, etc. Two groups have been funded by CDF to start Artificial Insemination for their cattle

### Challenges facing NALEP

The strengths are that the community is hardworking. Farmers are willing to adjust their farming into businesses, focusing on high value enterprises such as vegetables, poultry, zero grazing, and crops such as mushrooms, which represent a new opportunity. It is clear that the demand for extension services is increasing. Livestock enterprises and crops (avocadoes, coffee) farmers demand for extension even after FA exit. A Youth CIG started a tea nursery to supply seedlings to farmers.

### Case study: A successful farmer

Mr. Machuka is 33 years old farmer, with a wife and 3 children with one hectare of land, practicing mixed farming and business approach to farming. The enterprises on his farm are chewing sugar cane, poultry, dairy, Banana and Maize. Out of this combination he realizes gross income of ksh300, 000 per year. He had to reorganize his farm by uprooting tea to grow napier grass on the plot. He is providing farmer to farmer extension and charges each visitor/trainee Ksh20 per visit. His Farm Specific Action Plan (FSAP) was developed and reorganized and it is anticipated that income from holding will substantially increase.

## Suneka Division

The division covers an area of 15 sq km. The population is 12000 people with 1200 HH. Staff to farmer ratio 1:3000; total extension staff is seven

Dairy goat innovation is being taken up fast; Suneka is leading adapting in the district. Beekeeping is being carried out by farmers; live fences are planted around the apiary to protect people due to small parcels and proximity to housing. Local poultry is popular and demand is increasing due to its low investment costs, low labor input, dual purpose nature, and the fact that the poultry can scavenge for feed, saving on both investments costs and labor input.

Resource poor farmers have increased their units from 10 layers plus 2 cockerels to 200 chickens in a short while. The resource rich farmer can realize incomes from local poultry farming as indicated:

Selling 100 birds at Ksh250 = 25,000 per annum

Selling 200 birds Ksh250 = 50,000

### *Identifying Poverty and Vulnerable Groups*

The Suneka division team has been involved with developing a strategy for identifying the most poor and vulnerable. They reported that during the initial baseline studies carried out (PRA/BBS) the resource poor do not attend the meetings and do not go to churches. They were identified using local leaders. A survey was conducted and a meeting held specifically for the poor.

The criterion for defining the poor was developed by themselves. Poverty criteria included: Grass thatched and poorly maintained houses, small land parcel less than quarter of an acre, maybe only a house plot, income depending on irregular casual labor opportunities, etc. The poorest people were found to have also large families of seven members, with children not going to school and/or sick family members. The vulnerable are faced with many social factors that must be addressed before they are brought into agriculture production, some of which include poor housing (jiggers attack), malnutrition, malaria and excessive drinking.

A total of 120 of such people were identified. Farm to farm visits were conducted and special invitations made to them. There is a need to counsel the farmers for confidence building. The extension teams were learning on the job the skills of counseling, but were supported by a Baptist church pastor who was called in to support the community in curbing tendencies to alcoholism. This was successful in several cases and it led to the “total transformation of (the) person”.

Local poultry was found to be a good entry point. Maize seed was donated by a private Seed Company to 45 poorest farmers (2kg. each). Kenya Seed Co. donated also seed maize to another 12 farmers (2kg each). Demonstration inputs (money given out to these target groups).

The group of the vulnerable underwent training on proper planting of maize and applied the skills on their maize plot with great success. The better off farmers hired the vulnerable group to do planting of

maize for them. They increased the wages paid to non-skilled farm workers per person per day from Ksh50 to 100. The maize fields planted by these trained groups realized higher yield of maize.

**Case Study: Suneka Division (Gesero/Kerina Focal Area, 400 farmers)**

Changes in Agricultural Productivity 2000–2005

| Enterprise                      | Before 2000 | 2005                               |
|---------------------------------|-------------|------------------------------------|
| Maize (yield)                   | 2.5 bags/ha | 20 bags per ha                     |
| Bananas (average yield in tons) | 15 tons/ha  | 25 tons/ha                         |
| Sugarcane (tons)                | 80 tons/ha  | 100 tons/ha                        |
| Number of dairy animals         | 103         | 325 (included improved animals)    |
| No. of fish ponds               | 1           | 3                                  |
| Zero grazing units              | 6           | 25                                 |
| Protected Springs               | 0           | 2                                  |
| No. of beehives                 | 0           | 5                                  |
| Capacity building               | 0           | 2 group teaching sessions per year |

*Calculations done by Divisional Agricultural Officer, Suneka*

## FADC

All Committee members were interviewed and encouraged to share their experiences of being involved within their FA and the following summarizes their discussions:

- FADC can assist the weak ones
- Have become leaders in themselves
- Having an improved jiko to save wood is economical
- Contour planning is being adapted and we are getting good production
- Improved crop husbandry has increased food production
- Livestock diseases, human diseases, crop diseases were listed as top areas of concern in the BBS
- People were financially down, a situation that has improved
- “Osoma” great grain borer (GGB) was attacking maize in storage; the borer has been contained by the farmers saving their harvest from destruction
- Farmers are using some horticulture produce at home having been taught the importance of balanced diet
- “Unhealthy soil” has been addressed through diversification and crop rotation
- Poorest people need assistance in acquiring some seeds plus other small inputs to get started in production
- Three springs have been protected to address the problem of unsafe water

There are 19 Divisional Stakeholders members working in the area. The FADC is still active after the exit of NALEP and has planned field days in each the sub locations; an exchange tour conducted with funds contributed by farmers. Women were very active members of the FADC and well empowered, expressing themselves without fear. Participation by all is very good.

**Case Study: Woman headed household (widow), Member of the vulnerable group, 8 children**

She cultivates maize, ground nuts and beans. She also keeps a local cow for milk production. She has improved her house by a GI sheet roof. She owns her homestead plot, but rents a half acre field for Ksh1000 per year from which she gets 4 bags of maize; one of beans and some desmodium.

She was managing a trial plot for PUSH – PULL TECHNOLOGY supported ICIPE producing desmodium intercropped with maize. Stock borer controlled by smell from desmodium and move to Napier which their food therefore dies. Striga which is a maize root parasitic weed has its growth restrained due to high nitrogen fixed by desmodium as well as increased ground cover the creeping desmodium. Desmodium is fed to livestock as nitrogen supplement.

**Case Study: Micah Machuka's Farm**

The farm plan displayed contained the following activities

Eucalyptus woodlot

|              |   |            |
|--------------|---|------------|
| Sugarcane    | } | 0.5 acres  |
| Maize        |   |            |
| Tomatoes     |   |            |
| Bananas      |   |            |
| Maize        |   | 0.5 acres  |
| Homestead    |   | 0.35 acres |
| Napier grass |   | 0.33 acres |

The farmer started with crop farming with a loan from his parents of Ksh. 200. After selling farm produce he bought a local cow that he serviced with an improved bull to upgrade. He thus started with one grade cow to build up the herd. (Good grade cow price is Ksh. 25, 000. Such cow will give a lot of income through selling a lot of milk.)

He also took care of an improved breeding bull scheme accessible to other farmers. After three years it moved on and the farmer switched to AI service from private service provider at fees. The use of artificial insemination has resulted in getting 7 good cows, of which he has sold 3 and kept 4 cows to sell milk.

The sale prices for three cows were Ksh. 48,000; 32,000 and 30,000. During the dry season the farmer sells 21 litres of milk per day. During the wet season he sells 35 litres of milk per day. All milk is sold to the neighbors, confirming the large potential for dairy in the area.

The cows are milked three times a day:

| Time    | wet season | dry season |
|---------|------------|------------|
| 4 a.m.  | 10 litres  | 8          |
| 12 noon | 8 litres   | 5          |
| 5 p.m.  | 6 litres   | 4          |

When the FA was established in 2000 together with other farmers they also formed CIG named "Muruku Poultry and Dairy Farm Group" to which he still belongs. The CIG has 35 members, 16 women and 19 men. Activities include local poultry and a Merry go round scheme for raising funds. The first round of contributions was invested in building poultry houses for the 35 members. The second round of contributions was invested in building cow sheds for 12 members. Members have different enterprises, 8 members keep only poultry, 2 members keep only cows and 2 members keep both poultry and cows.

The farmer reorganized his farm to increase his gross margins. He presented justification for this move:

- ☐ Gross income from 1200 bushes of tea is Ksh. 12,000 per year
- ☐ Gross income from 300 tools chewing sugarcane yielding 30 canes per stool at KShs 10 per cane is Ksh. 90,000 per year, it requires low labor inputs and very low expenses on other inputs
- ☐ Gross income from 30 litres milk daily for 210 days at Ksh 28 per litre is Ksh. 176,400 per year
- ☐ Gross income from the sale of organic manure produced by cows at 5 pails per day for 365 days at Ksh.5 per pail is Ksh. 4125 per year
- ☐ Gross income from Napier grass 3 cuttings @ Ksh.3000 during wet season is Ksh.9, 000 per year or 3 cuttings@ Ksh. 5000 during the dry season is Ksh. 15,000 per year

- ☐ Tea picking labour costs is Ksh.3 per Kg. green tea while other input costs is Ksh. 6 (all covered by the tea monthly payments) making tea gross margin to be only Ksh. 12,000 normally paid as annual bonus)

The farmer attributed his success to high family determination and commitment to farming as business and not as a last resort when other opportunities are not forthcoming. The family unity between husband and wife with a high level of transparency and accountability between the two has also been important. Joint participation in decision making is important on enterprise choice, investment and implementation and utilization of farm for the family welfare. The wife is equally competent and fully interested in farming and has good financial management skills. They are of "one mind". The family is putting up a good permanent house with proceeds of their farm. They are offering farmer to farmer training through the many visitors they receive; each visitor is charged a fee of Ksh.20 per visit.

## Keumbu Division

The division team had a substantial knowledge about NALEP, its approaches and opportunities. The team members actively support each other and have a in-depth knowledge of each area serviced. The reports and records are in order and the Divisional Agricultural Officer finds all documents asked for.

NALEP was initiated in the Division January 2000. All members of the team find the NALEP approach very encouraging. Most important for them is the group approach but equally important are the planning and budgeting procedures introduced by NALEP. The teams have compiled comprehensive work plans and feel satisfied with their participation in the planning and implementation process of NALEP work.

Staff impact as perceived as a result of NALEP:

- we are all very active – we can respond to demands for field days
- staff is now becoming professional – we do what we are trained to do
- facilitation approach with groups have been inspiring and effective
- we control our motor bikes regularly, we know that we have fuel
- we plan our activities ourselves – this never happened before
- we come in time for the training and the demonstrations
- farmers are now asking for advice, that never happened before
- women are coming the training and meetings, this is a big change

A challenge has been that the individual farm action plans take a long time. They were good for mobilization but not useful in extension training. Only 10 individual plans have actually been used since NALEP started.

During June 2005 some 15 farmer groups have been trained based on their own demand:

4 groups on local poultry production

6 groups on kitchen gardening

5 groups on dairy production and marketing

In the 1st FA the team facilitated the start of 12 CIGs

In the 2nd FA the team facilitated the start of 13 CIGs

In the 3rd FA the team facilitated the start of 14 CIGs

Of those CIGs started only 5 are regarded as very active.

- 1 CIG focuses on establishing a tree nursery – selling mainly fruit trees to farmer – 22 members
- 1 CIG dairy production (originally 50 members) – collected funds among the members and bought 2 improved cows. However, the members could not agree which resulted in 30 members leaving the group to start a banana production and marketing
- Eremo youth Club CIG focus on local poultry and have received funds from KAP to buy 70 birds for its members. They sell the birds and keep 20 birds for the group where NALEP is providing training – 20 members
- Eremo Orphan Centre – cared for by the His Holiness Church is producing local poultry, vegetable as food for the orphans but with the intension to reach self-sufficiency secure food all year around
- Ibeno FA – see below – the most successful CIG/FA

All the CIGs started the first year of NALEP have disintegrated but most of the old members have continued with improved farming practices. Farmers/the old members help each other, particularly in improved maize husbandry which is very important for increasing the yield. Many of the groups continue as ad hoc extension groups and they often send representatives to the Division HO to “demand” various forms of training. The farmers know that the extension only provides training and demonstration for groups, not individuals.

Last year some 36 farmers, including women, members of old CIGs, visited the office to ask for further training in improved management of local poultry, maize production, vegetable production and marketing and dairy. “Farmers are now aware of the Division extension – they are actually asking for advice”.

The Division has been successful in inviting a number of Seed Companies to carry out demonstration among individual member of the CIGs. One seed company has been very active and provided different seed (maize and vegetables) to individual farmers. The farmers are now very aware of the different seed varieties and travel to Kisii to purchase varieties that they have seen to be doing well. Farmers are becoming very selective regarding what kin of seed they are buying. This year some 36 demonstrations have been carried out in the Division, most of them together with seed companies.

## **Ibeno Focal Area – Nyankororo Agriculture Initiative**

There are very few coffee farmers in this area. Several small-scale farmers in the area are growing tea. Tea production has suffered heavily from the drought. During the rainy season, it is impossible to reach the area. It is probably less than 5–6 km to the main tarmac road. The area has not suffered severe drought even though the rains have been much less than normal.

The Nyankororo Initiative (NI) was initiated in April 2004. This group already constitutes a Growth Centre. Several women and men are micro-entrepreneurs. Very impressive changes are reported to have taken place after the introduction of NALEP! Several members of the Initiative are members of the Focal Area Development Committee. This committee is considered to be very active. Members in the Committee are 8 men and 11 women! They work hard to revive dormant groups, invite farmers to demonstrations and try to teach them of improved agriculture. The Committee has been able to revive four or five groups dealing with bananas, horticulture and maize. They met in December 2005 and have scheduled the next meeting in March 2006.

The Committee has also invited seed companies to establish demonstration plots of their different seed, both on maize and vegetable. The most active collaborator is Farm Input Promotion Africa. This collaborator started to work actively in 2004 in the Focal Area. They demonstrate seeds for maize and vegetables and teach conservation tillage and provide soil tests. If the farmers like the seed demon-

strated they have to buy the seed in Kisii. Some very poor families have been given vegetable seed free of charge by the company. The company is now selling maize and vegetable seed to some 500 farmers in this area and surrounding communities.

Before NALEP there were no groups or cooperatives in this area. Most CIGs initiated in that have failed. Gusii men are often individualists and the members wanted to “go on their own”. Many of the former groups have however improved – so the groups still had a very good influence on many of the former members. Several groups wanted to start group contribution for different purpose, particularly the men wanted to collect money for buying a bull to improve their dairy cattle. AI is not considered reliable, it is difficult to reach and members were not good at detecting periods of heat. Many members/men were angry because they contributed money but the groups never had enough money either to purchase a bull or a cow. Several group wanted to by an “improved cow”, costing Ksh50.000. It was too much money for most members.

NI was registered after a few months of group work. Members could soon see the benefit of the group work. Total membership is 35, this includes 10 women members, most of these are widows. Women were able to confirm that the men are very proud when they say that the women have been able to take considerable advantage of the NALEP opportunities; perhaps more than the men. Women always participate in demonstrations and training, sometimes more often than men. Exceptions are dairy and maize production. It is noteworthy that those interviewed emphasize that each member should have some money available when the group is started. Without any funds it is very difficult to improve! When the group is established it may be different – particularly regarding horticulture where you can use local seed.

Today there are more than 50 households that have applied for members in the NI. Interestingly enough, the committee and members emphasized that they want the poorer households to become members. “They follow the rules of the group – they don’t create problems for us. The wealthier want to impose new rules –we don’t like that”! The members were and are still highly encouraged by the NALEP approach. They all started, mainly women, by establishing a small “kitchen garden” on 10m<sup>2</sup> of land. They were told by NALEP that this would be an adequate size. Most of the women collected local seed to plant in their garden. They did not need any money for that. Half of the members purchase tomato seed for planting in small portions. They planted “black night-shade”, spider flower (considered to be a weed) and sukuma wiki. The black nightshade, which is sold dried at the main road by the women, is regarded as the most profitable. This crop is harvested 4 times a year and from a small size kitchen garden it is estimated that one yield makes a profit of some Ksh2,500.

The largest horticulture field among the members is now about ¼ acre, but all members have increased their original kitchen gardens. Because of the fast profit from horticulture, and the fact that the women can keep most of the money earned, the group work has “jump-started”. It was reported that the women in this area had not been involved in commercial horticulture before NALEP. The production both increased household nutrition and incomes for all the women. The women plan their farms and actually go to the division and the local FEW, but also the local seed companies, to ask for advice and demonstrations.

They are interested in new horticulture varieties. The main change to improve their incomes was the introduction of drying the vegetables, particularly the black night-shade. Other farmers, particularly women, in the locality have started to grow vegetables. The NI members have encouraged them to do so. Most of the women in the group have given vegetable seed of the local varieties, free of charge to other households, particularly to the poorer households. More than 100 households have now taken up vegetable growing, the poor for their own consumption mainly, but some of them are selling their produce to NI members, who sell their produce at the main road.

Several members have also taken up or increased their production of bananas. Bananas were grown in this area before NALEP, but the production has now increased considerably among all the members. Thirty-six members have planted 50 trees each. Banana production is considered very lucrative; a very good market at the road and the crop is more drought resistant than many other crops. Traders come and buy the bananas at the farm gate. One bunch is sold for Ksh200 (estimated to some 30 kg), but at the road-side they can be sold for Ksh250 during this season. Quite often it is the women that produce and sell the bananas. But most of the money from selling the bananas is given to the men. Women joke about this – saying they kept more than the men knew about. However all of those interviewed emphasized that income had increased for the whole community since they started to work with NALEP.

All members produce maize. The plots are very small (max  $\frac{1}{4}$  acres) but maize production is considered to be a sign that you are a real farmer. Much training and demonstration has been done on improved maize production, planting, spacing, correct use of fertilizer and improved seed. If produced according to the training, the yields are considered very high. The NI has one of the best farmers in the Province as a member. He received a reward last year for his cultivation. He is always consulted – his plot is 1 acre. He has helped all his neighbors to improve the management of their maize. Last season he increased his yield from 3 bags to 10 bags from less than  $\frac{1}{4}$  acre. He applied 2 kg seed and 10 kg fertilizer.

The group started work on improved dairy for the members at the same time as vegetable growing. However the results for dairy have been much slower in showing results. All the members are involved in trying to improve dairy. Members are contributing Ksh100 per member a month. They have bought one improved dairy cow and the first offspring has been given to a member. The idea is among the members to buy a bull so that all members can have at least one “improved” mixed breed dairy cow. They reported that the NI has Ksh50,000 in the account and they now plan to buy a bull for the group.

The members interviewed are aware of the risks they take with these arrangements. The group may disintegrate if the members are not happy. The members are confident that their group will continue to work as a group. Both men and women are eager to participate in bull schemes and they have received training in improved dairy management by the extension staff.

Of late, some members of the NI have also started bee-keeping and bought 10 hives, but none of these households have harvest any honey yet. Five members have started a group for improving management of local poultry and 10 members have started to grow sugarcane, encouraged by the extension service, for the local market. There is a considerable demand for sugarcane “for local consumption”. Traders come with lorries to collect and buy the crop.

There are an estimated 200 very poor and vulnerable households living in the area. These are widows, orphans and several HIV/Aids victims. The NI has discussed how to help these people and come to the conclusion that the members should assist in two ways. Members should themselves abstain from sex outside marriage and campaign for this behavior to other members of the community, particularly the youth –they have met with very limited success! But members have made a resolution that they should assist those very poor and sick people who live close to their own farm. Most members are reported to have provided both vegetable seed (most common) to the poorest families. Some members actually planted some banana trees for the poorest households and many of the members have provided some maize seed. Some of the poorest households were actually provided some seed free from the seed company. The NI estimates that most of the poorest families have received some assistance and that no less than 120 of these households have started to grow some maize and vegetables.

## Appendix 6 Vihiga District, Western Province

Vihiga district is a densely populated (>1,000 inhabitants per square kilometer) food deficit area where farmers are generally too poor to be able to afford farm inputs and land pressure is a serious socio-economic problem.

The visiting team was received by the Vihiga district team lead by Mr. Edwin Mwango, the District Soil and Water Conservation Officer also acting for the DAO who was away on training. A district brief was given in hand out showing that Vihiga covers 563 Km. sq. with a population of 498,883 people as per the 1999 census and now projected to 595,181 people in 2005. The arable land is 419 Km. sq. cultivated by 69,250 farm families. The average farm size is 0.4 Ha. The land under crops is 330 Ha. The poverty level in the district is 58%.

The challenges of the District were described as:

- Low farm yields
- High population density
- Declining soil fertility
- Expensive and inaccessible credit
- Low quality animal breeding stocks
- Lack of organized marketing

Since NALEP started in 2003/2004, the cumulative achievements were presented as:

- 26PRAs, 26 CAPs, 26FADCs achieved
- 127CIGs formed with membership of 2,206 which is 22.6 % of the target population
- The actual number of target farms is 9,755, PFSAPs generated are 7,685 which is 79% of target farms and FSAPs 4421 which is 45% of the target farms
- 3,902 of FSAPs were implemented which is 40% of the target farms.
- Documentation system in place as useful working tool and for planning purposes
- Informative NALEP work plans and guidelines easy to interpret and apply
- Strong and effective collaboration of stakeholders is felt to the ground
- Sustainability of various agricultural activities is beginning to take shape
- Provides an avenue for addressing cross cutting issues such as HIV/AIDS, gender and leadership
- Rational management of agricultural extension services
- A district forum fund of Ksh.700,000 available
- CIGs have received Ksh.135,000 out the above fund supported by NALEP
- KSPFS have funded 4 CIGs each with Ksh.37,000 and another 5 CIGs with Ksh. 40,000 each
- Njaa Marufuku Kenya has funded 2 CIGs with Ksh.120,000 each and one CIG with Ksh.100,000
- Constituency Development Fund have funded CIGs with interest in Dairy goats, beekeeping, poultry, fish farming, mushroom production and tea nursery development

District extension officers are promoting sweet potato, cassava, sorghum and soya beans to reduce maize dependency. Local vegetables such as spider plant, cow peas and black nightshade are also

promoted, in addition to local poultry and dairy goats. Farmers currently receive Ksh 20 per litre of cow milk and Ksh 40 per litre of goat milk.

## Stakeholders Forum

VALDEC (Vihiga Agricultural and Livestock Development Consortium) was registered in 2003 and it has 32 members. VALDEC meets quarterly and is currently chaired by a Farmer considered to be medium scale (4–5 acres).

## Collaborators

One important collaborator is the Christian Pastors Development Agency, which is also active in Makweni district in Eastern Province. The CPDA has a memo of understanding with NALEP and focuses on addresses the research-extension-farmer gaps. It appreciates the collaboration with NALEP because, with only two staff, they are in need of help from the regular extension staff in spreading technological messages. They also feel that NALEP has access to more research information than CPDA and use these NALEP linkages to strengthen their own technological packages. CIGs are getting financing from Constituency Development Fund and Jamaa Yuku Kenya.

## Kerongo Focal Area

### Individual Farmer Visit – Elikana Oyugi – Farmer 1

This farmer has been working with NALEP since 2000. He is one of the few farmers interviewed who maintains detailed farm expense and income accounts, updated daily for the past five years! He grows Pioneer 54 maize on five acres of scattered plots. This acreage has been increasing since 2000 as a result of his failure to get a license for a dry mill for coffee, which led him to uproot 5,000 coffee plants. He owns six head of cattle, 3 dairy cows and 3 local cows for ceremonial or cultural purposes.

## Kerongo FA – Group Farmer Interviews

### Farm Budget – Farmer 2

| Year | Crops                                                         | Estimated Income/Food Security                                                                    |
|------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 2000 | Leeks, onions (one 10 foot bed)                               | Produce was eaten                                                                                 |
| 2001 | Leeks, onions + Sukuma wiki (greens)<br>500 stems of bananas  | Produce eaten, about 500 kshs earned in local markets                                             |
| 2002 | Leeks, onions + Sukuma wiki (greens)<br>1000 stems of bananas | 2 local goats purchased 800 kshs earned, some bananas given to goats as feed                      |
| 2003 | Leeks, onions + Sukuma wiki (greens)<br>1000 stems            | Increasing goat herd, 1000 kshs earned and bananas and produce for home consumption and goat feed |
| 2004 | Leeks, onions + Sukuma wiki (greens)<br>1000 stems            | Increasing goat herd, 1000 kshs earned and bananas and produce for home consumption and goat feed |

Farm budget Maize – Farmer 2 (female with one acre, optimal yields for Vihiga district estimated at 18 bags per year, the highest yield reported in the FA is 12 bags)

| Year | Maize yield                             | Bags sold |
|------|-----------------------------------------|-----------|
| 2001 | 3 bags                                  |           |
| 2002 | 5 bags (terracing and better practices) |           |
| 2003 | 7 bags (manure)                         |           |
| 2004 | 9 bags (manure and top dressing)        | 5         |
| 2005 | 10 bags (manure and top dressing)       | 7         |

## Lunyerere Focal Area

The Stakeholder Forum was reported to be expanding and has today 60 members and has been registered.

The aim of the FADC is to make it clear for the poorest of the poor that agriculture can be very important to those who work hard. Still, they are not averse to income generating solutions that are not directly production based as many of their poorest have little or no land. Here the District Home Economics Officer (DHE) seems to take the lead and be the one promoting the production and use of fireless cookers and the introduction of vegetable seeds. ICRAF activities in improved fallow and combating strenger infestation in Maize are reported to have been carried out here.

The following CIGs are present:

- Sweet Potato
- Fish Farming (14 youth groups, 2 women's groups and 8 others = 24 groups) they are also trained in fish drying
- Fireless Cookers
- Soya
- Avocado and Passion Fruit

Both poultry and dairy farmers expressed that they joined in order to get training and access cross breeding scheme. Some sell the surplus to their neighbours, but most wanted to improve their own diets. The dairy members said that when the surpluses increase they would like to create a milk collection centre.

The FA has a small demonstration plot (visited by the Team), a community based cereal bank (to avoid middlemen), computer training for Orphans and a community agricultural library.

Vihiga Agriculture Livestock Development Consortium was formed in 2003 with 32 members.

The forum meets quarterly. The members sell goats' milk for Ksh.53.30 per litre while cows' milk sells for half at Ksh. 26.70 per litre. Value adding is being encouraged and some farmers are already making yoghurt and mala milk which extend shelf life of milk. Sweet potatoes growing, making flour and baking is being promoted. Fish farming in ponds and swamps where tilapia and mud fish are raised is being adopted by farmers and energy saving devices is widely being adopted to save trees and time used in fetching fuel wood especially by women.

## Kerongo Focal Area

This Focal Area in Vihiga Division and was started in 2000/01. The assessment team made a visit to Mr. Elkana Oyugi's farm. The farmer received the visiting team and gave report on his progress since the FA activities were promoted. The farmer reported that great improvements in the family food situation have been since the FA activities started. The changes noted since NALEP started have been related to improved harvest of maize, beans, bananas and increased cow milk as well as lower mortality in local poultry. This farmer has been keeping good records over the year and reported the following:

Maize production over the period in 90 Kg. bags

| Year      | Plot A (bag) | Plot B (bag) | Total bags | Price per bag (Ksh.) | Value (Ksh.) |
|-----------|--------------|--------------|------------|----------------------|--------------|
| 2001/2002 | 10           | 11           | 22         | 800                  | 17,600       |
| 2002/2003 | 6            | 7            | 13         | 800                  | 10,400       |
| 2003/2004 | 8            | 10           | 18         | 1600                 | 28,800       |
| 2004/2005 | 10           | 11           | 21         | 1600                 | 36,600       |

The family's banana production had increased from 20 stools in 2001/02 to 71 stools 2004/05. This has significantly contributed to the household income. The family is also providing maize milling services to the local community at a fee. A motorized Posho mill was bought for Ksh.130, 000 and installed in 2002. The investment in the mill was funded with the wife's pension funds after retirement from a teaching job.

- Charge for milling maize to flour is Ksh.2.50 per Kg.
- Amount of maize milled to date is 89,775 Kg.
- Gross income to date is Ksh.223, 378
- Cost diesel used to date is Ksh. 110, 577
- Total Gross margin to date is 112,801 (before allowing for depreciation, house rent, regular maintenance and minor repairs)

The farmer reported that the total annual income to the family is Ksh.22,560

The farmer is unique in keeping fairly good records for his operations. The farmer had worked in a Coffee Research substation farm before retiring to farming.

Kerongo Goat upgrading CIG Visit

CIG started in 2000/01

## Collaborators

Through the NALEP activities, support has been given by the Rotary Club in improved breeding of local goats.

The Resource Project of Kenya (R.P.K) has supported better crop husbandry, soil fertility enhancement through application of farm yard manure and double digging. Another collaborator was reported to be AMUKENI (MPCT, STI, VCT) with interest in health and HIV/AIDS.

## Report by female farmers

The assessment team visited a female farmer. She gave her report on the benefits that have accrued in her household since she became actively involved with the Focal Area process. The following changes were notes regarding maize production changes on one acre of land:

| Year | Production in Bags | Sold Bags | Value of Sales | Home uses bags | Remarks                                            |
|------|--------------------|-----------|----------------|----------------|----------------------------------------------------|
| 2001 | 3                  | 0         | 0              | 3              | Before NALEP training                              |
| 2002 | 5                  | 0         | 0              | 5              | After training and adoption yield increased by 66% |
| 2003 | 7                  | 2         | 3,200          | 5              | 40%                                                |
| 2004 | 9                  | 4         | 6,400          | 5              | 28%                                                |
| 2005 | 10                 | 5         | 8,000          | 5              | 11%                                                |

The farmer expressed her satisfaction for having participated in the FA process since she now has improved her family food security over the period. She had found solutions to her soil's declining fertility through application of farm yard manure, use of certified seeds proper spacing and benefits proper weeding and pest control. She has also learnt post-harvest handling. The local potential for maize production is 12 bags per acre, with time the farmer will achieve it.

Another female farmer reported the following related to local goat breeding which has significantly improved her income:

| Year | Total Number          | Breeding stock + kids | Number Sold | Value Ksh. | Remarks                                       |
|------|-----------------------|-----------------------|-------------|------------|-----------------------------------------------|
| 2000 | 2 (nanny goats)       | 2                     | 0           | 0          | Before training                               |
| 2001 | 5 (includes one buck) | 5                     | 0           | 0          | After training and improved buck introduction |
| 2002 | 8                     | 5                     | 3           | 4,500      | Number of goats increased by 60%              |
| 2003 | 10                    | 5                     | 5           | 7,500      | Culling 5 goats                               |
| 2004 | 10                    | 5                     | 5           | 7,500      | Culling 5 goats                               |
| 2005 | 10                    | 5                     | 5           | 7,500      | Culling 5 goats                               |

The type of training provided by NALEP was on proper housing, feeding, breeding, disease pest control and vaccination. A nanny goat well cared for can produce twice per year and have high chances of twinning. Those without bucks can access services from the neighbours' buck at a fee when needed. Improved goats like Togenburg or German Alpine sells at Ksh. 8,000 buck and 4,000 for a nanny at the age of 6 months.

The assessment team also paid a visit to another female farmer, Carol, to discuss her progress within poultry production. Carol gave the following summary of her production and sales during the last five years:

| Year     | Total matured | Breeding stock | Sold number | Value Ksh. | Home uses | Remarks                                |
|----------|---------------|----------------|-------------|------------|-----------|----------------------------------------|
| 2000     | 5             | 5              | 0           | 0          | 0         | One cock                               |
| 2001     | 16            | 7              | 5           | 1,250      | 4         | 25 % Food sources                      |
| 2002     | 31            | 7              | 16          | 4,000      | 8         | One cock adequate                      |
| 2003     | 35            | 9              | 17          | 4,750      | 9         | Good year                              |
| 2004     | 44            | 9              | 20          | 5,000      | 8         | 7 died of NCD                          |
| 2005     | 36            | 12             | 15          | 3,750      | 9         | Picking up                             |
| Feb.2006 | 12            | 12             | 0           | 0          | 0         | No sales yet                           |
| Total    | –             | 12             | 73          | 18,250     | 38        | Value of home used poultry = Ksh.9,500 |

Carol sees opportunities for even further improve her production system. A hen can brood three times in one year, if one hen raises 7 chicks to maturity for three times in year this will be 21 chicks per hen. With 6 hens brooding, it is possible to raise 126 mature poultry for the market, at the price of Ksh.250 per unit this means into a gross income of Ksh.31,500 per year.

All farmers in the Poultry CIG have received training during the FA process. The above farmer reported that she had learnt during the training to do proper poultry housing, feeding, breeding, pest and disease control with special emphasis on vaccination against New Castle Disease and Fowl pox.

## Male's Napier production report

Another farmer visited was Rona Male. She has during training provided through the FA process learnt a technique called “tumbukiza”, She applied this methodology on her farm. The technique involves digging more than metre wide and deep large holes at the recommended spacing, putting /filling the holes with large quantities of farm yard manure then planting 3–5 splits of Napier in the holes.

The technique ensures adequate nutrients to Napier over a period of three years, the holes traps more rain water providing moisture to Napier long after the rains have stopped. She was harvesting Napier twice or more in one year depending on the whether conditions. Napier and milk improvement progress report by Rona Male:

| Year | Holes with Napier | Napier sales Ksh. | Zebu cow feeding | Zebu cow daily milk yield (cap = 250 cc) | Remarks               |
|------|-------------------|-------------------|------------------|------------------------------------------|-----------------------|
| 2001 | 0                 | 0                 | Not on Napier    | Two caps                                 | FA Training year      |
| 2002 | 40                | 0                 | some             | Four caps                                | Planting year         |
| 2003 | 40                | 200               | some             | Six caps                                 |                       |
| 2004 | 80                | 400               | some             | Six caps                                 | Additional planting   |
| 2005 | 80                | 500               | some             | Eight caps                               |                       |
| 2006 | 80                | 500 expected      | some             | Eight caps expected                      | Good harvest expected |

The milk increases from feeding the Zebu cow on Napier is noticeable having progressively increased four times in five years of improved feeding and other husbandry aspects all covered in training initiated under FA process. The farmer has fully tapped the Zebu cow milk potential, now she need to change to a grade cow with higher milk potential since she knows the good husbandry practices for a cow for her to obtain better returns to labour.

## Tiriki West Division visit

The visiting team was received by the Division team and escorted to Gisambai FA and to Mr. Carstone's farm where they were met by the FADC members. Discussions were held with the visiting team on the progress they have made since the inception of the FA process by NALEP in 2001/2002. The initial analysis by the community identified problems/challenges requiring to be addressed in order to improve the living conditions of the community. These were among others;

- survey showed inadequate food
- inadequate water
- fire wood inadequate
- diseases – malnutrition
- poor soil conservation
- CAP was developed and implementation started thereafter.
- They reported their achievements to date as being
- Introduction of cariadalla tree for feeding livestock and firewood
- Introduction of Sesbania tree used as livestock fodder and fertilizer.
- Eucalyptus for building and fencing posts, timber and fuel wood
- Gravellier as a commercial tree for timber fuel wood and construction.
- Spring protection for safe water (8 springs and 9 shallow wells achieved)
- Roof harvesting technology
- Soil fertility improvement through terracing and farmyard manure application.
- Crop husbandry improvement (indigenous vegetables, bananas, Hybrid maize use)
- Livestock husbandry improvement (local poultry, dairy goat introduction, bee keeping and dairy cows)
- Road maintenance
- Networking with other stakeholders (e.g. Christian Partners Development Agency)
- Resource mobilization from local council and CDF

A case of maize yield increases:

Maize production improvement have been achieved raising yields per acre from 10 bags before the FA to 25 bags during and after NALEP supported interventions and subsequent adoption of farm terracing, application of both organic and normal fertilizers as well the appropriate certified hybrid maize seeds and other recommended practices.

A case of local Poultry upgrading through improved cocks:

The farmer reported that she had been obtaining young cocks from a commercial hatchery at price of Ksh. 12. She sells a mature cock to farmers for Ksh.200 for upgrading their local poultry.

The main objective of this activity is to upgrade local poultry as well generate some income

| Year | Brought in young cocks | Sold out mature cocks | Value in Ksh. | Cocks mortality rate | Remarks       |
|------|------------------------|-----------------------|---------------|----------------------|---------------|
| 2001 | 0                      | 0                     | 0             | 0                    | Training year |
| 2002 | 10                     | 9                     | 1,800         | 1                    | First butch   |
| 2003 | 60                     | 53                    | 10,600        | 7                    | Second butch  |
| 2004 | 40                     | 35                    | 7,000         | 5                    | Third butch   |
| 2005 | 25                     | 23                    | 4,600         | 2                    | Fourth butch  |

A case of collaboration in dairy goat multiplication:

A goat CIG has purchased breeding nannies and bucks from Nyeri district through the assistance of a stakeholder namely Christian Partners Development Agency. The CIG has built an improved shed on Mr. Car stone's farm. The main objective is to bulk the initial stocks and distribute the off springs to CIG members at an affordable price. Members will produce goats' milk for home consumption and marketing in case of surplus, the kids will be sold to raise cash for the families while spreading the new technology to wide community of Gisambai.

This is a good case of collaboration where the community received information during the flagging of new opportunities stage of the FA process; they networked with like minded Partner who supported them to access breeding stocks at affordable costs. Extension officers continued to provide the technical know-how at every stage of this CIG dairy goat project. The inputs of all the stakeholders were found necessary and appreciated by all other parties creating synergy rather than conflict or negative competition.

## Sabatia Division visit

### Lunyerere special pilot FA visit

The plot was started in January 2003 and it is special in that the strategies to identify and reach the most poor and venerable were being piloted here. A baseline survey was undertaken by NALEP district team together with the Resource Kenya Project. The baseline identified the various categories of the vulnerable and poorest among Christian and Muslim groups in the community who included orphans, widows, HIV/AIDS affected, disabled, aged, youth, children and the sick. The problem facing these people were identified as:

- High dependency syndrome
- Low empowerment, low self confidence and no voice to make their rightful demands
- Briefs that they have no resources

- Withdrawal from participating in development meeting
- Inappropriate community mobilization approach, poor in targeting such segments
- Poor organization and non participation
- Inadequate knowledge and skills in farming
- In access to land
- Low soil fertility
- Unsafe and inadequate water
- Low capital base

Different Self help groups have been established and are registered with the Department of Social services. These groups were not CIG as defined by NALEP; they were identified as potential groups that could be enhanced to develop real CIG with focus on common interest in specific enterprises. The Lunyerere Development Forum (LDF) was formed with 60 members and 13 groups' membership. The various SHG/CIGs are members of LDF which is coordinating some their activities at higher level. The following are the group members:

- CIG for sweet potatoes promote this crop
- CIG for horticulture and traditional vegetables
- CIG for fish have constructed more than 11 fish ponds
- CIG for energy saving have members making energy saving devices such as fireless cooker for sale and home use.
- CIG for soya promoting this highly nutritious crop
- CIG for local poultry improvement also provides vaccination services to poultry farmers.
- CIG for dairy have 2 grade cows for zero grazing with intention to increase milk production.

Some groups have received assistance from other sources as well such as some widows who have received ALEIF funding from Vihiga Agriculture and Livestock Development Consortium (VALDC). Disabled people have received ALEIF funding to purchase a grade cow. The Lunyerere development forum runs a demonstration farm, Community Cereal Bank, Library and orphans computer class.

## Appendix 7 Maragua District Visit

### Background

NALEP started in the district in January 2000 with a start up of four FAs each with 400 farmer members. By 2006 there are 20 FAs established and 20 Focal Area Development Committees started. Fifty percent of the FADCs are still active with the same percentage remaining dormant. There have been 100 Common Interest Groups started to date of which 20% are active and 80% dormant.

The FA process is as follows:

- Selection of FA by division implementation team / stakeholder forum
- Staff orientation and training
- Baseline surveys / PRA
- Election of FADC

Extension groups were formed with common interest of training on agronomic practices of mainly food crops and land management issues and CIGs were formed to promote production of commercial crops or livestock enterprises. New CIGs are coming up in old FAs. Experience has show that farmers require more than one year until they begin to demand for extension services. The CIG approach to providing services to farmers was praised as good. It promotes the CIG to seek and demand for services. The willingness to incur expenses by the CIGs for demanded services was reported by the district to be developing well. Even after the exit of the division team from an FA, it was noted that new CIGs continue to be formed by the community.

Some NALEP collaborators in Maragua are:

- SACDEP – Sustainable Agriculture Community Development Program, an NGO promoting dairy goats
- CCSP – community capacity building support project (DANIDA Supported)
- Techno serve – promoting banana production and marketing through provision of credit and market linkages.
- Africa harvest – promotes high quality tissue culture banana planting materials

Banana production was an initiative of farmers, JKUAT University (Clean Planting material production). KARI was also involved seedling multiplication (through Tissue Culture process)

There is a Stakeholders forum in place of which include five companies. The last meeting conducted by stakeholders was in May 2005. The district Steering Committee which is mainly a forum of government departments is also active.

The new FA covering the whole locations was giving a new challenges to the FADC members in participating in meetings due to long distance traveled, this requires more of their time and cash expenses on transport which sometimes is found to be too big of a sacrifice on behalf of the community. On famine relief distribution, the team reported that World Vision (WV) is the appointed lead organization to coordinate all famine relief activities in the district. Relief seeds were reported to have been issued on the onset on rainfall to promote food production by those who had been hard hit and their productive capacity curtailed.

## Makuyu Division

The number of technical staff in the division was reported to be six in agriculture and three in live-stock. They all work as a team and are all involved in NALEP tasks. The division covers an area of 495 sq. km. and has three locations and 15 sub locations. NALEP started with four FAs in two locations. A total of six FAs have so far been established; 4 FAs in Makuyu location and 2 in Kamahuha location. The team reported that so far the impact of NALEP activities can be attested by the continuation of and starting of some CIGs long after exit from the FA. The banana CIGs were reported to have become strong and beneficial to banana farmers and have increased banana production, improved marketing and linkages with Technoserve and Africa Harvest who are providing specialized management training and improved planting material to the CIG.

The division team reported that existing of other CIGs with interests in:

- Tomatoes – production and marketing
- Irish potatoes
- Mangoes – production and marketing
- Grain amaranth – production and processing into flour for home use and sale
- Dairy goat introduction through improved bucks' procurement for upgrading/breeding with local goats

Extension groups also referred as CIGs are in place with activities covering demonstration on production techniques of various crops and their utilization. Collaboration was reported to exist in the division with the presence of various organizations. World Vision and SACDEP were reported to be working jointly with the NALEP team in support of CIG and individual farmers in the divisions. World Vision has been around for 6 years while SACDEP has been active in the division for 5 years. Another collaborator KBDS was reported to be involved in promotion of avocados and mangoes. Dairy Goat Association of Kenya (DGAK) presence in the area was reported with an interest to register dairy goats and recruit goat owners to join this national association. Two other collaborators reported to be actively in the area were Technoserve who has provided banana CIG with linkages with the banana buyers, and African Harvest who is providing training linkages to suppliers of improved banana seedlings. The services for above two organizations are paid for by CIG through commission system deducted from the sales of bananas.

One of the challenges faced in the area is the production of commodities is so scattered with many small producers. Quality guarantee is difficult where producers are many and scattered over a large area. Another challenge is the bulking to raise enough load for a buyer – this emphasizes the need for farmers to form CIG's.

The NALEP concept was praised by the division team. The strengths were reported to be:

- Makes GOK staff focus their services i.e. minimizing diversion of time and other resources
- Empowers the farmers to search for services and collaborators
- Empowers the farmer to demand for GOK services
- Budgets are based on agreed work plans, documented and funded accordingly up to the division level
- Transport in form of motorcycles is assured by NALEP which ensure officers planned access to farmers and CIGs as per the work plan

The extension is promoting:

- Early maturing maize and drought resistant maize e.g. Katumani.
- Early maturing beans e.g. Mwezi Moja beans which have a short growing season consistent with short rains season.
- Farmers are trained on diversification into fruit production as food and a source of cash to buy food.
- Cassava, Finger Millet and Sorghum growing are being encouraged
- Dairy goat is being promoted to supply milk especially for home consumption; sales of goats/kids provide cash to purchase food for the family

The strategy for reaching the pro-poor and the vulnerable was not in place and it was assumed that they are reached through regular field days addressing crops such as cassava and finger millet. The division did not report any special program specifically targeting the poor. Neither statistics nor records of the pro-poor were available. On the strategy to address famine, high priority is given to the production of maize and beans being the staple food in the area

## **Thara FA**

The Thara FA was started in the year January 2000. NIAT visited Banana CIG in the FA which had developed over the period of the FA. The chairman reported that they came together with common interest covering dairy goat promotion through the introduction of improved bucks for upgrading their local goats. The program was successfully completed when a majority of the members acquired improved bucks. The upgrading of goats is on course.

In September 2003 they registered the Banana CIG with a membership of 30 banana farmers. This was promoted by low prices of bananas they were receiving from middlemen (brokers) for their bananas. They realized the power of collective bargaining and they reported that now they offer their bananas at their own price. The CIG got linked up by a collaborator, Technoserve, who in turn linked them to reliable banana buyers at better prices than previously offered by brokers. CIG reported that they have so far sold 52 tons of bananas realizing a turnover of Ksh500,000 since April 2004. The price offered for first grade banana is Ksh13 per Kg. while second grade fetches Ksh9 per Kg, a great improvement compared with the prices Ksh5 per Kg offered for all grades before the start of the CIG.

The prices are negotiated every three months between the CIG and the contracted buyers. The CIG deduct Ksh1 per Kg. of banana sold to cover the operating expenses of the CIG. Bananas are collected at the CIG centre every 20 days. Farmers/members have been trained as banana graders. The grading is done in the presence of the banana owner and other members of the CIG. Transportation to the market is organized and paid for by the banana buyer. Sales records are well maintained and payment to CIG by the buyer is by checks. The members may opt to receive cash or have money transferred to his/her account in the local commercial bank.

Through collaboration with Technoserve the CIG has constructed a building used for temporary storage bananas waiting grading and transportation to the market. The building will serve as a farmers' information centre and a training venue for CIG members and the community. CIG have written plans/proposals to install water from the nearby permanent streams.

The CIG chairman reported that production of bananas has increased through:

- Planting more and improved banana seedlings being supplied through African Harvest
- Improvement on banana husbandry which improves quality/grades of the bananas. This includes pruning, manuring/fertilizers and controlling pests and diseases as well as practicing water harvesting on banana fields

The CIG current membership is 40 active members. CIG is open to new membership who must be vetted by the current members for good conduct. The CIG have 10 women members (widows and married).

## **Kandara Division**

A visit was conducted to Karumu FA which was started in January 2000 financial year. The chairman of Karumu FA reported that several CIGs were started in their FA after intensive mobilization and through training by NALEP team. After the NALEP team moved to other new FAs, the FADC committee disintegrated, it was reported that they rarely meet.

It was reported that many opportunities had been lost due to the collapse of their FADC. He indicated that they were discussing with a few of the original committee members to revive the committee in order to address the many problems facing the community in the FA. He reported that as an individual attending the development forum he lacks the peoples mandate and the power therefore to push FA agenda. Opportunities such as funding by the Constituency Development Fund (CDF), a GOK programme of funding. Community proposed projects are being missed by the Karumu FA community due to lack of proper community leadership.

The FA farmers reported that they had initiated a banana production and marketing CIG with 54 members falling to 34 members and finally being dormant. The banana farmers are selling their produce to middle men (brokers) at throw away prices of Ksh 50–70 per whole bunch of banana. The farmers expressed strong wishes to be linked to Technoserve so as to revive their original objective of selling/marketing their bananas together.

CIG on bee keeping and honey production is in place with 34 members. They are producing honey and selling the crude honey with wax at Ksh. 150 per Kg. The opportunity of value adding through honey refining/ processing is being missed.

Youth in the area are have formed a CIG promoting fresh bean production and marketing who are the minority. The majorities of out of school youth are not yet engaged in any gainful employment and are highly dependent on parents some were reported to be drifting to substance abuse.

Dairy milk production and marketing CIG was reported to be the most active in the FA with current membership of 50 members. 126 milk producers are supplying their milk to the CIG for transportation to a private company collection centre, this includes non – CIG members' milk so as to attain the economies of scale in transportation. Currently the CIG is handling 300 litres of milk daily. During the wet season they handle 1000 litres/day. The milk price paid by the private company currently (dry season) is Ksh. 19 per litre while previously during the wet season it was Ksh. 18 per litre. The milk farmer receives Ksh 14 from the CIG; Ksh. 4 is deducted by the CIG to cover the transport cost of milk and overhead costs of the CIG. Three CIGs along the same route are discussing coming together to share transport in order to cut transport costs. The CIG reported they have plans to buy/build a cooling facility to facilitate sale of evening milk.

The CIG Muruka HIV Educators was reported to be actively assisting orphans with food as well as organizing for them to receive famine relief food supplied by the government in the area. Collaborator KARI/ATIRI program was reported to have supported a CIG with dairy goats and promotion of fodder production. SACDEP was also reported to have collaborated with CIG in the area.

## Appendix 8 District Profile – Thika District, Central Province

The DSF has 72 members and comprises of the secretariat (GOK department), 30 private companies, agro-vet stockiest, prominent farmers and NGOs. The DSF committee is chaired by a farmer. The GOK/ministry has good human resources; members are good for mobilization of the community and providing technical inputs in some fields of production and animal husbandry. The DSF has also produced a magazine by the name KILIMO FOR THIKA covering priority enterprises in every edition.

The Thika district team expressed their views on the strengths of NALEP as a programme crating impact at staff level in terms of professionalism, proper extension planning and implementation. NALEP support for CIG has an impact on increased marketed production; income of the members was reported to have increased. The empowerment of farmers through NALEP intervention to be in charge of their development as well as going out to search for collaborators was reported. NALEP intervention has also awakened the extension team and the community about the existence people who were “forgotten” and appropriate mechanisms have been put in place which was reported to yield touchable results. The district team was full of praise for NALEP. This was attested by the fact that they have been receiving farmers’ visits regularly and were judged as top performers and were awarded an education tour to Philippines together with another seven participants from other NALEP districts.

The Thika Forum for Community Development (TFCD) has joined together with several stakeholders. It is registered and has an established bank account at the Catholic Development Bank at Ruiru town. Proposals from CIGs and self help groups for the most vulnerable are submitted to TFCD and on scrutiny, funds are approved as loans. The initial fund Ksh500,000 handled by TFCD was a grant from NALEP under the Agriculture and Livestock Enterprise Initiative Funds (ALEIF). It was reported that of the 60 proposals received, 40 were approved and funds released to the CIG.

The collateral to these loans are relatively simple for poor CIG to access the funds. Such collateral are trees, Napier, sufuria, radio, and bicycle depending on what the individual borrower has. The individual proposals are vetted at CIG level by the members; group/peer pressure is the strongest collateral. The loans have funded investment in livestock (steers), poultry, animal feeds, petty trade selling farm products and crop production.

Repayment so far stands at Ksh10,500 which is encouraging taking into account the farmers were faced by an exceptional drought leading to famine. The interest on loans is at 2%, responsibility to pursue the loan repayment is delegated to the CIG leadership. The district is well endowed with collaborators such as:

- Plan Kenya
- World vision
- SAC DEV (For sustainable development)
- RODI
- YARD (for youth development)
- ICLOF (for micro finance)
- Franciscan Sisters (HIV/AIDS, counseling the sick and promoting honey as food/medicine for the sick)
- Tumaini (counseling the vulnerable)
- IFAD (Multi-sect oral development)

## The Poor

Thika initiated a pilot project in identifying of the vulnerable groups. CIG in Gatanya division catering also for the vulnerable members of the society and CIG in Gatundu South division involved in dairy development and marketing of milk. It was reported that an earlier study undertaken by a consultant had established that the poorest people were not being reached by the NALEP supported extension approach. The study identified these poorest cut across the old aged, youth, HIV/AIDS infected and affected, orphans, widows and widowers, single parents and there were child headed households. The district extension team attempts to take inventory of these poorest was unsuccessful as these poorest responded to the interviewers by saying that they had nothing to report and they have no assets to be recorded. The district extension team identified that they lacked skills to handle this category of the community so they searched for a collaborator who had the relevant skills.

Tumaini, a faith based organization was brought on board to apply counseling skills; they visited 72 houses of the most poor who had earlier been identified by local leadership (assistant chief) and village opinion leader and church worker. Tumaini (FBO) took lead of the field team incorporating the NALEP extension team. The team dialogued and counseled poorest households by encouraging them to build confidence and self-pride. Preaching Bible messages in those Christian oriented poorest, the team managed to make the poorest “open up” to the visiting team. The NALEP extension team returned there after and were well received by the poorest households. Together they identified and recorded the resources that these poor had and could be applied to improve their welfare. The vulnerable formed groups which each member could contribute as little as Ksh20 per week.

Little resources found to be owned by the poorest households were labor (sickish, aged, youth), small land parcels, local chicken (neglected), pasture (bushes), trees, limited skills, some crops, casual employment, micro-trading, shelter (poor) and access to water (rain).

In most cases it was reported that these were not properly used because dependency syndrome had built up in these people. The poorest hid under lack of money and had accepted that they had no resources and had surrendered to their fate. The Thika district team initiated a program targeting the poorest in selected FA. Technologies appropriate for the poorest were identified jointly with the poorest. Some of the entry points were formation of self help groups, local poultry, dairy goats, planting indigenous vegetables, sweet potato planting and merry-go-round and the culture of saving a little cash.

## Kigio FA

Kigio FA is in the Kirwara division and was initially opened in January 2000. Under the phase II approach of covering the whole location, it happened that the old 400 farmers FA which is inside the larger location FA joined.

The Kigio Resource Poor Initiate Forum has four groups with separate membership and leadership; Witeithie Women Group (17F), St. Mary women group (30F), Men fighting against poverty (16M) and Gatanga Ebenezer physically handicapped caretakers (8F). These four have a common objective of reducing poverty among their members while taking care of their vulnerable members. They are relatively poor with some of their own members being poorest. They have handicapped children to care for.

The activity common to all is an effort to encourage members to build little savings in a way of contributing regularly an agreed amount based on the majority level of ability. They are encouraging their members and teaching them the act of borrowing, investing and paying back for others to access the same credit. They teach their members that “money” borrowed has a cost in form of interest rates and therefore borrowed money must be in most cases used to generate more money in order to pay the borrowed money with interest.

- St. Mary charges Ksh12 per Ksh100 borrowed per month
- Men fighting poverty charges Ksh5 for Ksh100 lent out for one month
- Witeitie charges an interest of Ksh3 for Ksh100 lent out for one month
- Gatanga Ebenezer charges Ksh5 for Ksh100 for one month

These groups have received training in: local poultry vaccination, housing and feeding, livestock housing, feeding and disease control as well as dairy goat management and up-grading of local goats with improved bucks.

### **St. Mary Women Group**

Their activities include Table banking (Ksh100 per month contributed by each member) and Merry-go-round (Ksh20 per month contributed by each member). Benefits as reported by one member who borrowed Ksh5,000 from the group and invested the money in grocery trade and for feed for her dairy cow has repaid KShs 2,000 to date.

The group has disbursed their own saving totaling to Ksh95,103 and another Ksh99,300 borrowed from Thika Forum Community Development. They reported that their combined effort in the CIG has uplifted the welfare of their members.

Training has been provided in dairy cow husbandry, local poultry husbandry, kitchen garden and maize and bean husbandry. In 2004 members invested their borrowed funds in:

- Poultry – 1 member
- Dairy goats – 1 member
- Kiosks – 2 members
- Feeds – 3 members
- Steers – 1 member

### **Gatanga Ebenezer Physically Handicapped Caretakers**

This group is constituted by the mothers of children with disabilities and currently has 8 members. They have table banking activities. Each month, each member contributes Ksh50 which they loan to their members' on a rotation basis. The borrowed money is used for buying planting seeds and feed for livestock. The same little money is used for purchasing medicine for any of their children.

It was reported that they had written a proposal on bee keeping to the Ministry of Agriculture under the "Njaa Marufuku" programme in August 2005 and they were funded up to Ksh120,000. The funds were used to establish a group apiary with Kenya Top Bar Hives (KTBH), honey harvesting equipments and they underwent training on bee hives management. It is anticipated that income generated from the sale of honey will go into the group kit which members can access on the agreed terms.

Two of the 8 handicapped children are attending the local primary school. The parents reported that children are not benefiting much since the school does not have a trained special education teacher, an issue they are taking up with the relevant authorities.

### **Men Fighting Against Poverty**

This group was formed in January 2004 after some poor men in Kigio realized that women in Kigio were actively addressing the various problems and were improving their own lives while men were sinking deeper in poverty. The group was initially formed with 21 poor men – 16 are still active in the group.

The two activities undertaken are Merry-go-round (raising KShs 100 per month from every member and lending the money to a member every month) and Table banking (each member contributes KSh20 every month as savings). In the current programme they are contributing KSh120 which they in turn lend to members. On the borrowed funds they charge an interest of 5% per month.

The group members applied for funding from Thika Forum Community Development. Their requests were approved and loaned up to KSh56300. A total of 12 members benefited from these funds. The highest loan was KSh8,300 while the lowest was KSh5,000. The loans were used to fund various enterprises/activities as per members' interest; some members used the loan to start passion fruit production, buying feed for their livestock, others started farm produce sales trade, others bought steers' fatteners. The group members felt they have improved their welfare and they are ready to forge ahead. The group has been popular and other poor are requesting to join the group.

### **Witeithie Women Group**

It was reported that the group has been active and have undertaken activities such as growing of passion fruits and dairy farming. They are practicing both table banking and merry-go-round all which have benefited their members.

### **Kigongo Dairy Farmers Group**

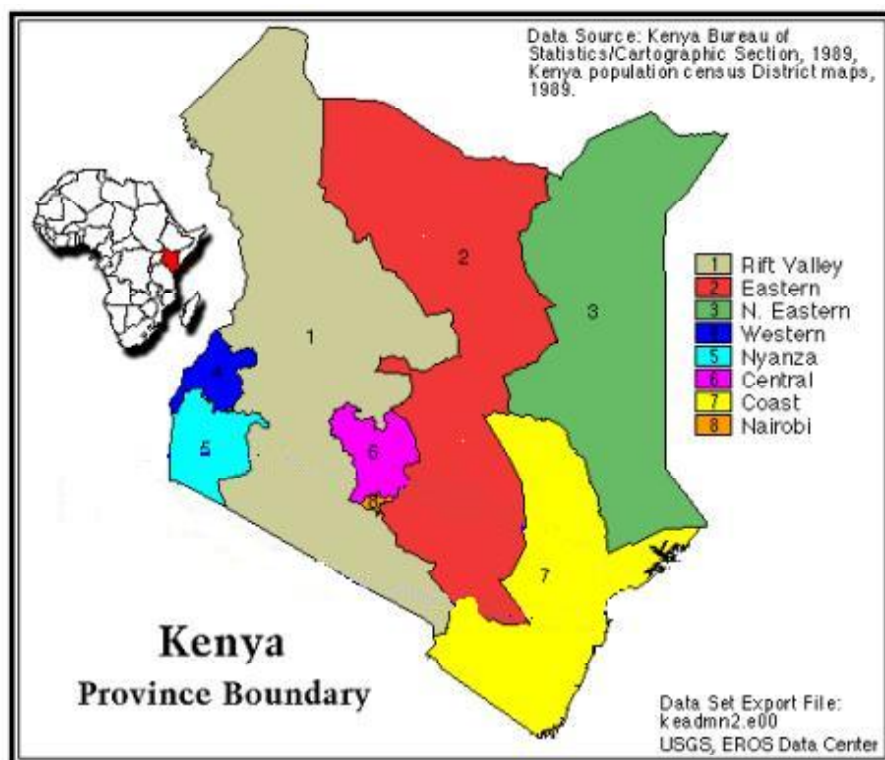
The group is in Kang'ang'ira FA which started in 2001 in Gatundu South division. The three groups in existence are Kigongo dairy farmers, Kang'ang'ira dairy goat group and Passion fruit growing group.

The members of the Kigongo dairy group have 40 current members. The group has 5 women members, two of who are widows and 25 men members. Each member contributes KSh200 every month. The contribution is split in two funds; merry-go-round receives KSh100 while table banking receives KSh100. The group meets on a monthly basis. Members have borrowed loans from the group; the highest loan is KSh10,000 while the lowest is KSh2,000.

Each member owns dairy cows ranging from 2 to 5 and sell their milk together. Members have rented a building/kiosk as a selling and storage point for their milk and have installed a cooling facility in the shop and pay KSh2,000 a month for electricity. They pay rent of KSh11,300 for the kiosk per month and have full time employees at the kiosk for KSh13,500 per month wages. Members milk is collected and transported with hired transport (KSh1,500 per day) 20 km away to Ruiru town. They handle both member and non-members milk to reduce the cost of transport and other overhead costs.

During the wet/rainy season, they manage to collect and sell 450 litres of milk. During the current dry season, the milk collected and sold has dropped to 250 litres per day. They sell the milk at Ruiru for KSh25 per litre wholesale and KSh26 per litre retail price. They face stiff competition from Brookside, a large company in the area currently paying KSh18 per litre of milk.

## Appendix 9 Poverty Levels of Kenya



Percentage of individuals living below the poverty line by Provinces and Districts visited by the Impact Assessment Team:

### **Western Province: 60%**

Kakamega 63%

Vihiga 58%

### **Central Province: 31%**

Kisii 61%

Thika 39%

Maragna 37%

### **Northern Nyanza: 64%**

Kisumu 63%

### **Eastern Province: 58%**

Machako 60%

Makueni 62%

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## Appendix 11 Persons Interviewed

### Maragua District Visit

Muiruri – M & E Livestock

Njoroge – M & E Agriculture

Gichuki – NALEP-Desk Officer

Kiragu – DPLO Coordinator/ NALEP

Muthembwa – DAO (Outgoing)

### Makuyu Division Visit

Mary Chege – DAEO

King'ori Kanjeru – Div. FMO

J.K Ndungu – Div. SCO

Florence Gichuru – Div HCO

Rhoda N. Kuise – Dep. District Agric. Officer/Farm Management Officer

### Thara FA Visit

#### Kandara Division Visit

Mr. Joseph Mbugua the Kandara division livestock extension officer.

Karumu FA, secretary, Kariuki Juma members: Julius Ngéthe, Beatrice Mugure & Jenny Karuke

Machakos District Visit

Damaris Mativo – DPLO – NALEP Coordinator

Walter Mwangovia – DAPO

Paul Musyimi – DCO/RELO

Mulwa Ngie – RDO

Rose M. Mwanzia – District Home Economics Officer

### Kangundo Division Visit

Mrs. Regina Kubuthu – division livestock production officer, also the NALEP coordinator

Mr. Muriithi Nabea – division agriculture extension officer, also NALEP coordinator

### Kyevaluki FA visit

Kyevaluki FA accompanied by Muriithi Nabea – DEC Kangundo division

Members of Ukulu vulnerable group comprised of 82 members

### Kisumu Provincial Agriculture HQ

Jacob Odondi – Provincial Director of Agriculture, Provincial NALEP Coordinator

Dr. Florence Odero, Provincial Director of Livestock Production (Provincial Co-Coordinator of NALEP)

Ms Hendrica Marita – Provincial NALEP M/E Officer

### Kisumu District Agricultural Office

Abigael Prissa Dohingo – DAO, NALEP Co-Coordinator

Rosemary Davloch, District Livestock Production Officer, NALEP Coordinator

Rose A. Koboge – DCO/DHCO

Alfred Ajulu – Deputy Livestock Officer

### Kisii District Agricultural Office

Samuel Maiko – DAO,

John Ndege – DLPO  
James O. Libako – DAPO  
David W. Muny – Crops Officer  
William Ndirangu – Deput DAO & District Farm Mgt Officer

### **Suneka Division**

James Kenyanya – Div. NALEP Coordinator  
B.K. Muthini – Div. Livestock Officer

### **Bosodo FA**

Joseph Mwanga, Chairman  
Peter Basweti Ochaló, Secretary  
Teresa K. Oyongo, Treasurer  
Mallisela Omonyma  
Bosire Ojaro Myakina  
Zakawa Ogwaka  
Isabela Mokabi  
Joseph Bisiria  
Nyanganesi Nyatoge  
Model Farmer Mikael Majuka  
Mulluku Dairy and Poultry Farmers Group

### **Keumba Division**

Zablon Oirere – Divisional NALEP Coordinator  
Alfred Omuruon – DIVAPO  
Jane Moturi – DivHEO  
Wiman Division – Kisii District

### **East Kolwa Focal Area**

Mayenya Community farmers development group

### **Participants**

Thomas Mboya – FADC Secretary  
Esther Adongo – Member  
Salim Odongo – Few East Kolwa  
Henry Atudo – Chairman Mayenya Farmer  
John Onyango – Treasurer – Mayenya Community Farmers Group  
Julius Owuor – Organising Secretary  
Maurice Ajode – Chairman FADC  
Rhoda Apunda – Divisional Home Economics Officer  
Risper Okoth – FEW East Kolwa F/A  
Mary Anuayi – FADC Member  
Hesborn Nyabinda – Member – Mayenya Farmer  
Ester M. Odundo – Divisional Agricultural Extension Officer – Winam  
Opiyo Philomena – Assistant Agricultural Officer – Reporting

## **Western Province**

D:T:M: Makheti, PDA, NALEP CoCoordinator

W.O. Omutsani, PDLP, NALEP Coordinator

Saidi Wekulo Fwamba, NALEP M&E Officer

Florence Murekefu, Deputy PDLP

## **Kakamega District**

James Malinga , DAO, NALEP CoCoordinator

Ernest Shisanya, DDAO

Wafula Wycliffe, DAPO

## **Shinyala Division**

Harry Kivai, Div. Livestock Extension Officer

Anne Owino, Div. NALEP Co-coordinator, DAEO

Ilesi FADC, Charles Ikoha, Chariman, various members

## **Ikolomani Division**

Jonathan Barry, Div. Soil Cons/Farm Management Officer

Butsetse FA, John A.A. Mwinamo, Chairman, District Stakeholder Forum

## **Vihiga District**

Edwin Mwankgo, District Soil & Water Conservation Officer, Acting Deputy Agricultural Officer

Margaret I. Lidambiza, DHEO

Asienia Onesmus Ayuya, District Farm Management Officer

Anacetua Omuse Etyang, District Animal Production Officer

Henry M. Odonog, District non-ruminant officer

Sammy Bunyati, Christian Pastors Development Agency

## **Vihiga Division**

Godfrey Opomdo, FEW

Phylis Andarusi Div. Ag. Extension Officer

Kerongo FA, Elikana Oyugi (farmer)

Gisambai Focal Area Dev. Committee

Lunyerere Focal Area

## **Others**

Dr. Chin Ong ICRAF, 28 February Tuesday

Maimbo Malesu RELMA, 28 February Tuesday

Erastus M. Kruruiri, Embu Research Station, 1 March, Wednesday

Hudson Isagi RPK, 3 March Friday

## **Mkueni District**

Dixon K. Mutua, District Research Extension Liaison Officer

J. Nzinga, Extension Coordinator, DAPO

Mrs. Masika, farmer and chairperson, Komone FDA

David Musila, DEC Kaiti Division

(DAO and DLPO were away attending a workshop in Mombasa discussing DASS)

# Appendix 12 Terms of Reference for Impact Assessment of NALEP Phase I

## Introduction

The Sida supported National Agriculture and Livestock Extension Programme (NALEP) Phase I started in July 2000 and implemented by the then Ministry of Agriculture and Rural Development (MOARD). After splitting of MOARD in 2004 the programme continued being implemented by Ministry of Agriculture and Ministry of Livestock and Fisheries Development. The programme has been operating in line with the National Agricultural Extension Policy (NAEP) covering 43 districts in 5 provinces. This was a three year phase which was later extended to 5 years and ended in June 2005.

The purpose of the impact assessment of Phase I is to establish to what extent the project has contributed towards the achievements of its goals of providing and facilitating pluralistic and efficient extension services for increased production, food security, higher incomes and improved environment.

In 2002, a mid term review was carried out of the project whose conclusions were taken into consideration in the new project document for phase II (see Mid-term review of NALEP for reference). Furthermore, various studies have been carried out of NALEP-concepts as well as a study of the extension policy, NAEP. When NALEP II was up for a decision in Sida, it was concluded that there was not enough information on impact achieved of the project interventions. Hence, it was decided that an impact assessment should be carried out before a long-term agreement would be signed for the programme.

## Background to the Project

### Project Goals

The overall project goal is to enhance the contribution of agriculture to social and economic development and poverty alleviation.

This is to be done through providing and facilitating pluralistic and efficient extension services for increased production, food security, higher incomes and improved environment.

### Expected Outputs

The main outputs expected from the project were:

- A more inclusive catchment approach developed and implemented (focal area approach).
- Effective programme management of the Sida supported National Soil and Water Conservation Programme (NSWCP) adapted and used in NALEP.
- Technical and management capacity for integrated extension enhanced.
- Collaboration within extension and other service providers enhanced.
- Appropriate mechanisms to address the resource poor developed and used.
- Gender integration into project cycle management achieved.
- Research, extension and farmer interaction enhanced.
- Appropriate technical packages promoted (current NSWCP outputs and others as identified).
- Programme co-ordination for NALEP mainstreamed into extension.

## **Project Design**

The project was designed to spearhead implementation of the National Agriculture Extension Policy (NAEP) and operates within the National Agriculture and Livestock Extension Programme Framework (NALEP) having following main features:

- a strong participatory and demand driven approach
- empowerment of beneficiaries in controlling and financing their future extension needs
- provision of an enabling environment for private sector participation in extension
- gender issues in extension
- wider involvement of stakeholders
- strong farmer-extension – research linkages
- accountability to beneficiaries
- support of value adding to agricultural produce and products and strengthen skills development and encourage agro-processing at farm level
- environmental sustainability

The programme is meant to play an instrumental role in the planned transition from conventional agricultural extension in the country to a broader and more farmer-oriented extension, better equipped to meet the needs and demands of the small scale farming population.

The programme has been focusing on poverty reduction measures and empowerment of small scale farmers and with strengthening the capacity of extension staff in meeting farmers' demands.

## **Project Components**

Apart from support to MOARD (later MoA and MoLFD) extension services, the project included two research components (KARI and ICRAF) and support to the 'Advocacy Group' consisting of three NGOs working on sustainable natural resource management. The output from these three additional components was directly aimed at supporting the general extension component.

As mentioned in the introduction, this impact assessment will focus on the impact from the general extension component.

## **Status of Implementation**

During the 5 years of Phase I, the around 3,000 extension workers involved in the programme, provided advice to more than 500,000 farmers who had demanded services.

During the last three years, over 7,000 Common Interest Groups (CIGs) with a membership of more than 150,000 individual farmers undertook different enterprises aiming at turning farming into a business.

A total of about 600,000 people attended training events organized by the programme.

## **Objectives of Impact Assessment**

The main objective of the study is to assess the impact the programme has had on the rural populations covered in Phase I and to what extent it has contributed to the achievements of its purpose

## Issues to be Examined

Keeping in mind that the NALEP concept builds on participation, partnership and collaboration, the study has to look into impacts on the target group (farmers/pastoralist) not only from direct interaction with NALEP staff but also from collaboration with other stakeholders as a result of the programme.

The study by using various indicators described in the project document should aim at assessing the outcome from the different project outputs and its contribution to the impact on the following (but not limited to) key issues related to the implementation of NALEP:

- Changes in livelihood generally
- Food security
- Farm income
- Farm production and productivity
- Environment

The study should also assess achievements, constraints and challenges in the implementation related to:

- access to extension facilitating factors (eg. access to markets and capacity to prepare extension packages in response to available market segments, access to and use of rural finance, effects on credits versus savings in project areas)
- other external factors described under assumptions made in the project document

The study should include analysis of causes for success and failures and where appropriate offer recommendations on improvements/way forward.

This analysis should include:

- Effects on investment climate and generally attitudes towards the programme among stakeholders and collaborators.
- Private sector involvement including extension pluralism and the efficiency of stakeholder fora
- Sustainability of relationships between collaborators
- relationship between NALEP and collaborators considering different approaches in their rural development activities particularly when it comes to providing handouts to individuals and use of NALEP resources by other projects.
- coverage of and impact on vulnerable groups
- mobilisation and organisation of farmers
- impact in relation to coverage of the project (any spill over effects??)
- Research-extension linkages
- The effect of HIV/AIDS activities
- The effect of gender equality activities
- The effect on poverty reduction

The study should also assess to what extent the programme contributes to the realization of drivers of change. The analysis should include:

- anti-corruption mechanisms

- participation of various categories of farmers – rich, poor, vulnerable, women, men and youth
- realization of Human rights
- equality in assessing agriculture information and other agricultural related services

The programme was also meant to improve the capacity of the institutions and the stakeholders involved in its implementation. It will be necessary to show to what extent this has been achieved and if possible, the impact it has created towards the realization of the overall goal. Specifically:

- training of extension staff, farmers, FADCs and CIGs etc
- professional meetings
- stakeholder forums
- study tours

## Methodology

The evaluation findings shall be based on discussions with stakeholders and studying various documents prepared before and during the project implementation period. It is expected that the consultant shall undertake the following:

- Briefing by Sida Officials in Stockholm and Nairobi.
- Briefing and discussions with MOA&MOLFD Officials in Nairobi.
- Review of different literature such as National Agricultural Extension Policy (NAEP), NALEP Implementation Framework, Project Document; Annual Workplans; internal evaluations and follow up reports; audit reports; Annual and Semi-annual reports, PRA reports; CAPs; baseline data records; Consultancy reports,
- Briefing and discussions with NALEP Management and staff at HQs, Province, District and Divisional levels.
- Discussions and interviews with:
  - farmers and leaders at different levels.
  - other stakeholders in agricultural extension within the established network, e.g. Training and Research organisations, NGOs, CBOs, Private sector, Donors.
- Field work (major part of the study) to verify the various indicators related to programme purpose. This will include verifying changes in food security, incomes, production and the environment related to available baseline information from e.g. the Farm Specific Action Plans and PRAs from the communities, as well as asking people about how they perceive the changes. In this context, people should be asked to give their view on how NALEP operates and suggest improvements.
- One day Workshop to discuss the draft report with major stakeholders (about 50 participants)

## Expertise

The work shall be carried out by at least three people, one of who shall be a consultant with international experience in project evaluation, especially Sida funded projects. The team will include at least 1 locally-based expert, with local knowledge of Kenya. The combined team shall possess documented skills or specialisation in M&E; agricultural extension; natural resource management and livestock/ agricultural economics/ socio economics, rural development, agricultural marketing, HIV/AIDS and gender. Sida position paper on how to Improve Income for the Rural Poor should be used as a reference during the work.

### **Timing**

Consultancy input from the team shall not exceed 100 person-days (Team Leader: 40 person-days; other two experts (30 person-days each, total 60 days) undertaken over a period of 3 calendar months starting February 2006.

### **Expected Outputs**

The main output should be a detailed impact assessment report highlighting both positive and negative impacts by the programme with analytical review of and where appropriate, concrete actionable recommendations. The aim is to incorporate conclusions/suggestions into NALEP II.

### **Report Outline**

The report's outline shall be prepared by the consultant and agreed upon by the client.

An inception report shall be produced 10 days after commencement of the assignment and submitted to Sida and NALEP. A first draft report shall be submitted on the 8th calendar week after commencement. Sida, NALEP and collaborators would be given 2 weeks to submit comments on the draft report. A final report, which considers comments, should be submitted not later than four weeks after the team leader received comments.

All reports shall be produced in English.

12 original copies of the reports shall be sent to Embassy of Sweden (3 nos), NALEP (8 nos), Kenya Ministry of Finance (1 nos), and an electronic version sent to NALEP and Embassy of Sweden.

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