INSTITUTIONS, VOICE AND ACCOUNTABILITY: 
A COMPARATIVE STUDY OF POVERTY AND ACCESS TO RELEVANT 
AGRICULTURAL ADVISORY SERVICES IN EAST AFRICA

Esbern Friis-Hansen, Danish Institute for International Studies 
efh@diis.dk

Abstract: "The gaps in social policy between what is needed, what can be afforded and what is provided are today as wide as ever in rural areas of East Africa, where the majority of the poor live in rural areas. International debate on social policy in poor developing countries is arguing for a change in the focus and scope. Citizen-centred welfare pluralism relies on good governance, which in a social policy sense refers to how responsive a political regime is to the needs and wishes of its people.

The study examines patterns of social exclusion and marginalization from institutions that provide agricultural advisory services in East Africa. Based on selected case studies, the study analyzes the characteristics of rural poverty and reviews underlying causes of marginalization and poverty reduction. The study further analyzes experiences with demand-driven advisory services and explains contrasting results in terms of farmer empowerment and institutional transformation of local government extension staff.

The study concludes that (i) farmer empowerment through participation in farmer field schools and (ii) institutional transformation of local government staff have a positive effect on the social inclusiveness and effectiveness of demand-driven advisory services. Social policy perspectives of these findings are discussed."

Keywords: citizen-centered social policy, rural poverty, demand driven advisory services, farmer empowerment, farmer field schools, Africa

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Executive summary

The gaps in social policy between what is needed, what can be afforded and what is provided are today as wide as ever in rural areas of East Africa, where the majority of the poor live in rural areas. International debate on social policy in poor developing countries is arguing for a change in its the focus and scope. An alternative citizen-centered welfare pluralism relies on good governance, which in a social policy sense refers to how responsive a political regime is to the needs and wishes of its people.

The study examines patterns of social exclusion and marginalization from institutions that provide agricultural advisory services in East Africa. Based on selected case studies, the study analyzes the characteristics of rural poverty and reviews underlying causes of marginalization and poverty reduction. The study further analyze experiences with demand drive advisory services and explain contrasting results in terms farmer empowerment and institutional transformation of local government extension staff.

The study concludes that (i) farmer empowerment through participation in farmer field schools and (ii) institutional transformation of local government staff have a positive effect on the social inclusiveness and effectiveness of demand-driven advisory services. Social policy perspectives of these findings are discussed.
Searchable key words: citizen-centered social policy, rural poverty, demand driven advisory services, farmer empowerment, farmer field schools, Africa.

1.0 Introduction

1.1 Background

The World Bank Social Department Strategy (SD) espouses the principles of inclusion, cohesion and accountability and refocuses the Bank’s social development work toward three strategic priorities: more macro-social analysis, more socially responsive projects, and better grounding of its advice on sound social research. The work on social policy responds to the third priority and will lay the basis for tapping into global knowledge and country experience—combining the state-of-the-art in social policy with the ongoing debates among policy analysts and developing countries—enabling the donor community and developing country partners to take a fresh look at social policy interventions in the context of a rapidly globalizing world.

This paper was commissioned by SD as a contribution to its Social Policy work program within the theme of Inequality, Livelihoods and Inclusion. It studies poverty and access to relevant agricultural advisory services in East Africa (Uganda, Kenya and Tanzania).

1.2 Study focus

The TOR call for (i) an analysis of patterns of exclusion and marginalization from institutions that provide agricultural advisory services; (ii) an exploration of ways of tackling the underlying causes; and (iii) an examination of the direct social policy implications with regard to the importance of farmer empowerment for increasing the effectiveness of demand-driven advisory services.

The study starts by discussing the ‘citizen-centered social policy’ conceptual framework adopted by the Social Policy Research Program at IDS Sussex. This takes its point of departure in a modified sustainable livelihood framework with a focus on the “broader social configuration of social provisioning, which prevails in different contexts, and with the extent to which it addresses the needs of the poor” (Kabeer 2004:3).

Based on this understanding of social policy, the study outlines a framework for analysis that focuses on equity effects of the combined changes in opportunity structures and farmer empowerment. The study explores ways in which rural institutional innovations, a shift in power
from state employees to farmer institutions, and support for private service providers associated with demand-driven agricultural advisory services can be key elements in the formulation of a social policy for rural areas.

Using a poverty ranking methodology that is based on farmers’ perception of well-being, the study examines social characteristics of very-poor, poor and non-poor within the rural population. The study further examines processes of rural impoverishment and how different social groups access and benefit from extension services.

Principles of demand-driven advisory services are discussed and two contrasting experiences with implementation of National Agricultural Advisory Services (NAADS) in Uganda are analyzed. The study focuses on the extent to which NAADS has improved advisory services to farmers, and whether it has been inclusive of the poor. The experience of implementing NAADS in Uganda is contrasted to the plans for demand-driven advisory services in Tanzania.

The study thereafter analyzes the effectiveness of farmer field schools for farmer, empowerment based on empirical data from Uganda and Kenya.

The study finally discusses specific policy recommendations with regard to the importance of farmer empowerment for the effectiveness of demand-driven advisory services. It will further discuss the agricultural sector reforms in the perspective of a social policy for rural areas.

1.3 Methodology

The study will draw on existing research reports and program reviews combined with data from ongoing research covering four issues, namely (i) studies that characterize poverty and analyze processes of social exclusion and marginalization in rural areas; (ii) project documents and review reports that analyse the concept of, and experience with, demand-driven advisory services; (iii) studies of farmer empowerment; and (iv) social outcomes from combining efforts directed at farmer empowerment and demand-driven advisory services.

Experiences from three countries are drawn upon in the paper, they reflect different forms of advisory services provision with different degrees of implementation and varying positions with respect to farmer. The study is not an attempt to make a comprehensive review of these experiences, but seeks to compare the different policies and practices with a view to exploring
the role a social policy approach to advisory services might have and the gains that it might bring.

A considerable amount of literature exists in all three countries with regard to the first issue, including studies that assess and analyze poverty and processes of social exclusion and marginalization in rural areas. The study uses data and analyses from Uganda to illustrate trends that are common throughout East Africa.

With regard to the second issue, the concept of and experience with demand-driven advisory services, only Uganda has experience with implementation of a comprehensive national program (NAADS). Tanzania has experience with participatory approaches from a wide range of different area-based projects. It furthermore has finalized plans for a ‘next generation’ comprehensive national agricultural advisory service program, which will be appraised early in 2006.

East Africa has a wealth of experiences with interventions that have stimulated farmer knowledge and organizational empowerment. The Farmer Field School movement has spread in all three countries since the late 1990’s and is likely to be the most successful and influential program of its kind. This study will draw on experiences with poor farmers in farmer field school in Kenya and Uganda.

2.0 Conceptual framework

2.1 Social policy in East Africa

In spite of the widespread poverty in East Africa, government social welfare concerns and actions targeting the very poor in rural areas are very limited. The post-independence institutional arrangements governing social policy was inherited from colonial administration and over time became entrenched within the bureaucratic structures. This in turn led to the establishment of strong vested interests among politicians and civil servants for their continuation along sector lines, and set ministries in competition against each other for allocation of scarce public resources. The beneficiaries were formally state employees, while the losers were the rural poor (Kabeer 2004).

Structural adjustment programs were completed in East Africa by the mid-nineties and by then the social policy achievements gained during the first decade after independence were no longer sustained. The gaps between what is needed, what can be afforded and what is provided
are today as wide as ever in rural areas of East Africa where the majority of the poor live in rural areas.

The post-adjustment era (the past decade) has brought about new forms of social dynamics. Poor people in rural areas of East Africa are today experiencing widespread market failures, and the private sector market has proved to be even less effective than the state in assisting the poor. While the elimination of state and parastatal intermediate organizations to some extent increased cost effectiveness, it left a number of areas uncovered as private entrepreneurs find returns too low or risk too high in the absence of institutional or infrastructural support. The effects of structural adjustment in the agricultural sector of East Africa have been socially and geographically skewed, favoring (i) better-off farmers and (ii) farmers living in areas where there is good market access.

While this, in part, has been a deliberate attempt to let market forces determine where it is most profitable to produce, these policies have had serious consequences, in particular to farmers living in areas with high transport costs to markets and in particular for farmers who previously cultivated food crops using subsidized inputs. While structural adjustment policies envisaged diversification of production in such areas, this diversification has not taken place and has not been planned for (Friis-Hansen 2000).

These developments are in line with a general trend: ‘where inequalities are deeply entrenched in the social structure, both state-centered and market-centered approaches have the effect of reinforcing, rather than dissolving, pre-existing inequalities: the state because it responded primarily to those with political clout, and the market because it serves only those with purchasing power.’ (Kabeer 2004: p45).

Social policy has grown in importance, as the strict economic ‘factors of production’ models of development have been replaced by models of development by a ‘heterogeneous array of social actors, differentiated by their identities, interests and endowments, and exercising different degrees of voice, influence and agency in shaping development outcomes (ibid: p7).

The post-adjustment states in East Africa may be characterized as neo-liberal. Moore (2000) describes the role of the neo-liberal state’s welfare pluralism as one of protective regulation and coordination in the contexts where commercial agents become more influential in their offers of provide social services.
2.2 Towards a citizen-centered social policy

Kabeer (2004) identifies two different forms of welfare pluralism. The dominant form of welfare pluralism is associated with the theory of new forms of public management that has been highly influential within the neo-liberal agenda for public sector reform. It emphasizes principles of consumer choice, competitiveness and efficiency and thus provides a counterbalance to the neo-critical critique of the rent-seeking state, with its associated inefficiency and bureaucracy.

An alternative vision of ‘the social’ associated with welfare pluralism positions the individual as a citizen rather than a consumer. Civil and political rights command a greater support than economic, social and cultural rights at the international level and in particular among the world’s richer countries. However, economic, social and cultural rights provide the foundations for people to exercise agency free from deprivation and discrimination, and are seen to entail a greater claim on collective resources and require a role of the state which is incompatible with the ‘minimalist state’ envisaged by the neo-liberal agenda (Kabeer 2004).

Development literature provides numerous examples of citizen-led movements and organizations that have articulated the needs and demands of local people and opened ‘policy spaces’ for public involvement in various decision-making processes (Long and Long 1992, Friis-Hansen and Sthapit 2000, Friis-Hansen and Webster 2005).

The development literature further distinguishes between two different rationales for government agencies, development organizations and NGOs/CBOs to engage in community participation: improved cost effectiveness and empowerment. The neo-liberal approach to welfare pluralism because it is seen to represent principles of voluntarism and ‘self-help’ in the part of the communities’. This version of participation becomes a cost-effective way of managing a particular project.

In the citizen-centered welfare pluralism model, welfare pluralism is not merely a mechanism for downloading social responsibilities to the voluntary sector, but also a means of securing greater transparency, responsiveness and accountability from service providers (Kebeer 2004). This form of participation is often termed empowerment.

2.3 Farmer empowerment

Empowerment is, however, often used in an unclear way. Participatory approaches used in projects often use the term empowerment in an apolitical way in which individuals are
‘empowered’ to chose opportunities offered by the project. The mechanisms of empowerment in most participatory development projects are either very simple or conveniently fuzzy (Friis-Hansen and Sthapit 2000).

In the World Bank trilogy “Voices of the Poor” (1999, 2001, 2002) five key elements are presented in what they call an “empowering approach to development”. It is here that the World Bank reintroduces the state as a strong player in development in contrast to the “the market” and “civil society” policies of the eighties and nineties (World Bank 1998). The state is now accredited with the capacity to curb the predatory elements of capitalism under globalization. If states are also to be more effective agents of poverty reduction, then support to the following is to be given:

Promote pro-poor policies.
Invest in poor people’s assets and capabilities.
Support partnerships with poor people.
Address gender inequality and children’s vulnerability.
Protect poor people’s rights.

To this agenda has been added empowerment with the aim of supporting key groups in becoming greater agents in their own development. In the international development forum “empowerment” has formed an important part of the discussions of gender equality, the importance of participation and the strengthening of the powers of the poor. Discussions drawing upon works such as Paulo Freire’s (1970) and empowerment through informal adult education (Ashley and Carney 1999). Participation is seen to empower poor people by enhancing local management capacity, increasing confidence in their own abilities as individuals as well as a community, in bringing their interests into collective decision-making.

A participatory approach took on the status of a mandatory requirement for local development interventions. More often than not it became reduced to a set of procedures in the project cycle, reflecting a technical rather than a political approach to the issue, beneficiaries being empowered when they had a menu of choices and a capacity to choose. Awareness has grown that social structures, cultural practices, and the local politics at work within a project locality are not being adequately considered. Unintended outcomes can be to reinforce existing
hierarchies, social exclusion and economic marginalization. It also becomes clear that in areas of social conflict, where problems are most pronounced, empowering poor groups without exacerbating relations with other groups, is difficult.

Despite these positive developments in using empowerment as an instrument for greater equity and equality, improved agricultural growth and better marketing systems, broader political issues tend to be excluded from the farmer empowerment approach advocated and supported by donor agencies. There remains a seeming reluctance to consider the more structural causes of poverty and the role that farmers can play in pursuit of changes in trade regimes, for land reform, redistribution schemes, progressive tax reforms, market regulation and similar.

In a recent Danida-funded policy study of farmer empowerment (Friis-Hansen and Webster 2005) the definition of empowerment has been further developed to be relevant to the rural poor, who are often smallholders and subsistence farmers supplementing farming with paid labor who are economically weak and politically marginalized. Often they will be locked in a net of dependency relations to the wealthier farming elite. They possess a low priority in most governments’ policies. Women are also important farmers, but their weak position in terms of land rights, access to information, and participation in decision-making serves to deepen their marginalization and to increase gender inequality. Any discussion of farmer empowerment must begin with an awareness of the different groups of farmers present and their differing interests.

From the previous discussion it can be seen that empowerment enables people to influence decision processes and undertake transformative actions, which helps them improve their livelihoods. At the same time the contemporary use of “empowerment” seeks to identify power in the capacity of people to increase their self-reliance and individual strengths rather than in terms of a more political concept that stresses the relations between individuals and between groups. The empowerment of one group of farmers may also restrain the powers of others depending on the context; they will therefore resist. The price for empowerment of poor farmer groups paid by others might be only short term in nature, but it has political implications for development programs and their outcomes (Friis-Hansen and Webster 2005).

Based on the Danida policy study our working definition of farmer empowerment is:
“A process that increases the capabilities of smallholder farmers and farmer groups to make choices and to influence collective decisions towards desired actions and outcomes on the basis of those choices”.

Knowledge empowerment enables farmers to understand the causes and effects of their own agricultural problems and to articulate their technology, extension and development needs as informed demands. Knowledge empowerment allows farmers to actively participate in the planning, implementation and evaluation of services, in effect transforming them into clients, managers and/or owners/partners, rather than passive beneficiaries.

Farmers’ organizational empowerment is realized when farmers are organized in groups that are coherent, independent and sustainable. Such groups can enable farmers to articulate their informed demands and interact with state institutions and private sector. They are also the basis for joining/establishing higher-level farmers’ organizations that could represent their interests at local government and national policy level.

2.4 Opportunity structures

However equally important to citizens’ capacity to effectively articulate needs is the state’s willingness and capacity to respond to its different constituencies. Several factors are externalities over which the farmer and farmer groups have little direct influence in most political contexts. They tend to be structural in nature and institutionalized in terms of law, cultural and social practices, and not least economic and political interests.

The capability of the farmer to make choices and to influence collective decisions towards desired actions and outcomes on the basis of those choices is influenced by national and local policies and regulations, decentralization, information structures and market conditions, traditions, gender roles and relations between men and women, ethnicity etc. We call these the opportunity structures as they strongly influence the opportunities available to the farmer for developing his or her capabilities. At the same time, farmer actions, through farmer organizations, can influence and on occasion change the opportunity structures so that a farmer
can improve her/his condition. In general terms they establish a better enabling environment for agricultural growth and rural development (Friis-Hansen and Webster 2005).

Kabeer (2004: p 49) proclaims that ‘Public sector reform should be used as far as possible to build commitment to greater accountability and to inclusive citizenship within the state itself.’ Realization of this requires the institutionalization of incentive structures that promote the recognition, reward and development of the capacities of government agency staff to be responsive to the poor.

Effective citizen-centered social policy relies on good governance, which in a social policy sense refers to how responsive a political regime is to the needs and wishes of its people. The quality of a government’s performance (its professionalism, pragmatism and intolerance of corruption) is at least as important as its political declarations.

2.5 Framework for analyzing elements of a citizen-centered social policy for the rural poor

Figure 1. Citizen-centered social policy for the rural poor
Kabeer (2004) states that social policy today (should) comprise models of development by a ‘heterogeneous array of social actors, differentiated by their identities, interests and endowments, and exercising different degrees of voice, influence and agency in shaping development outcomes’ (ibid: 7).

In western countries social policy can be understood as the product of dual movements: pressures from below and reforms from above. Welfare state regimes in western industrialized societies evolved alongside proletarization of labor and their organization into labor movements (Wood and Gough 2004). The chances that social welfare regimes develop through similar mechanisms of pressure from below in African countries are limited, as labor/farmers are seldom sufficiently organized to assert adequately pressure on governments.

The structural and human development changes associated with agricultural advisory services reform seek to improve the quality of institutions through which welfare might be secured: Rural institutional innovations; Farmers’ organizational and knowledge empowerment; institutional transformation of local government organizations providing agricultural services; and the creation of an enabling environment allowing local private entrepreneurs to relate to poor farmers living in marginal rural areas. Understanding these processes may contribute to the formulation of social policies that are relevant to rural people.

The implementation of a citizen-centered social policy at the local level take its point of departure in an understanding of patterns of exclusion and marginalization within prevailing institutional configurations of social provisioning and exploring ways of tackling their underlying causes (Kabeer 2004).

3.0 Rural poverty and social exclusion from agricultural services

3.1 Poverty in East Africa

Poverty prevails in Sub Saharan Africa. The proportion of absolute poor people in Sub Saharan Africa has remained about half the region’s population during a 20-year period from 1981 to 2001. However, because of population growth, the number of absolute poor almost doubled from 164 million in 1981 to 316 million in 2001 (Bhorat, 2005). Poverty is largely a rural phenomenon and is often more severe in rural areas than in urban centres (Dorward et.al. 2004). In East and Southern Africa, rural areas with high potential for production and marketing
accommodate the majority of poor people, while poverty is deeper in semi-arid or otherwise marginal rural areas (IFAD 2000).

Technically, the productivity, household food security and income of a large proportion of these poor farmers could be substantially higher. Smallholder agriculture has not provided a base for improved livelihood because its potential has not been fulfilled. The performance of the rural poor as producers and traders is dependent upon their access to productive resources (land, labor, technology, capital and productive assets) and their knowledge to use those resources effectively and sustainably.

While the importance of non-agricultural activities is increasing in rural areas, smallholder agricultural technology development still holds the greatest potential for poverty reduction (IFAD 2002a). The rural poor are engaged in low-input low-output production systems with disjointed research, production and marketing relationships. Inadequate participation of farmers in agricultural technology development is in part responsible for the inability of farmers in many parts of Africa to take advantage of improved agricultural technology. Agricultural technology development among smallholder farmers is very uneven and the effectiveness and relevance of agricultural services are key explanatory factors (Friis-Hansen 2003).

However, poverty and the social mobility are far from simply being questions of access to and use of technology. Rural communities are highly heterogeneous, and a wide range of share-cropping arrangements exist through which some people (very poor and poor) work as casual labor for others (non-poor and poor). While such labor arrangements take many different forms, they all tend to preserve existing social inequalities and restrict social mobility.

3.2 Why use farmers’ perception instead of one $ a day to characterize poverty?

The understanding of poverty has evolved considerably among development agencies and governments in East Africa during the past two decades. Early understandings of poverty were almost exclusively based on low income or consumption. More recently, many new understandings of poverty have emerged that have included a wider range of socio-economic factors. Common for these are that they define poverty as the absence of specific resources. For example, in Tanzania in the eighties poverty was measured as the cost of the minimal nutritional needs. Later, the definition came to include some socio-economic factors such as high rates of morbidity, low life expectancy, prevalence of malnutrition, poor quality housing, inadequate
clothing, illiteracy, low per capita income and poor infrastructure of communication and transport, etc. [Gov. Tz\(^1\)]. Other definitions often include high fertility, food insecurity, lack of access to basic services, such as safe drinking water, and inadequate access to technology.

The World Bank Development Report 2001 describes poverty as pronounced multidimensional deprivation in well-being (of which lack of income is one). This new understanding of poverty is reflected in Tanzania where poverty measurements currently include issues such as self-esteem, exclusion from the development process, vulnerability to internal and external risks and lack of social capital [Gov. Tz\(^2\)].

Two theoretical bodies of literature have inspired this change in the understanding of poverty. One focuses on participatory approaches to research and development (Narayan et al. 2000), while the second conceptualises poverty as capacity deprivation and thereby distinguishes between means and ends (Sen 1993, 1999). Sen (1999:90) explains his understanding of poverty the following way: ‘What the capability perspective does in poverty analysis is to enhance the understanding of the nature and causes of poverty and deprivation by shifting primary attention away from means (and one particular means that is usually given exclusive attention, viz., income) to ends that people have reason to pursue and, correspondingly, to freedoms to be able to satisfy these ends.’

This reflects the importance to distinguish between what is instrumentally important versus what is intrinsically important to people. Amartya Sen conceptualizes poverty as a person’s achieve ‘functionings’ (i.e. what a person is succeeding in ‘doing’ and being’). Some of these ‘functionings’ are basic (e.g. good health), while others are complex (e.g. having high self-respect). Sen proposes that the ‘functionings’ that characterize poverty in a given areas should be a reflection of peoples’ own values.

The concept of capabilities (i.e. the opportunities available to a citizen to achieve valued being and doing) is reflected in people’s own perception of well-being. Well-being descriptions, based on studies that measured poverty based on people’s own perception, emphasize three types of ‘functionings’ (i) the degree to which a household has the freedom to choose its sources of livelihood; being adequately nourished and protected from sun and rain; and (iii) the

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\(^{1}\) [http://www.tanzania.go.tz/povertyf.html](http://www.tanzania.go.tz/povertyf.html) - 03.06.05

\(^{2}\) [http://www.tanzania.go.tz/povertyf.html](http://www.tanzania.go.tz/povertyf.html) - 03.06.05
capability to obtain the commodities required for achieving these functions (Ravnborg 1999, 2001).

Based on a rigorous selection procedure, people’s perceptions of well-being are extrapolated into clusters, validated, and combined into a poverty index (for a detained description of the methodology see Ravnborg 1999). For two reasons such an area-based poverty characterization has shown to be a highly useful methodology in East Africa. Firstly, because it reflects the multiple dimensions of poverty and the ways in which these combine into shaping the different faces of poverty, which are not captured by conventional poverty measures (Ravnborg 2001). Secondly, because it emphasizes poor people’s agency and capabilities, rather characterizing them based on their lack of resources (as many conventional poverty assessment methodologies do).

3.3 Rural poverty characteristics in Soroti district

A poverty assessment based on farmers’ own perceptions based on the methodology discussed in the previous section, was carried out in Soroti district, Uganda in 2004 by the author in collaboration with Makerere University. The resulting poverty index is shown in annex 1 and discussed below.

With regard to assets, an analysis of the survey results reveals that a significant correlation exists between the ownership of land and well-being categories. Approximate half of the non-poor farmers own more than 5 acres and the other half between 1 and 5 acres, while only a tenth of the poorest have more than 5 acres, and close to a quarter have less than one acre. A similar significant correlation exists between well-being categories and ownership of animals, with three quarters of the non-poor owning cattle, while this is only the case for 40% of the poor and 10% of the poorest. With regard to housing standard, the difference between the three well-being categories is less clear.

There is further a significant correlation between well-being categories and non-agricultural income. Three quarters of the non-poor households receive non-agricultural income, around half of which is from ‘high entry cost’ sources, while none of the poorest households receive non-agricultural income from ‘high entry cost’ sources, and about half of the poorest have no non-agricultural income at all.
Also for agricultural labor, the analysis shows significant correlations. Less than a third of the non-poor farmers work for other farmers as casual laborers, and those who do only do so to a limited extent. Meanwhile some 90% of the poorest work as casual laborers and most of them extensively. The opposite picture is the case for hiring casual labor. Some 80% of the non-poor hire casual labour, while this is only the case of some 40% of the poor, and only 10% of the poorest.

Significant correlations also exist with regard to household food security and food consumption. 85% of non-poor households are food secure, compared with less than half of the poor and less than a tenth of the poorest. The differences between the well-being categories is less clear with regard to the type of food eaten (the indicator termed ‘feeding’ by the farmers).

Social well-being categories also show significant differences between farmers from different well-being categories. More than a quarter of the poorest have a member of household who is seriously sick, compared with less than a tenth of the non-poor. Almost a quarter of the poor and very poor households have children between 6 and 12 years who do not attend school, while this is so for only one tenth of the non-poor. Half the non-poor households have children attending secondary school or private school, while this is so for about a tenth of the poor and poorest. Also with regards to marital status, there are clear differences, with a third of the poorest households being headed by a widow or a single or divorced woman, while this is so for less than a tenth of the non-poor households.

3.4 Processes of rural impoverishment and poverty reduction

While escaping poverty is responsive to one set of factors, falling into poverty is associated with another and different set of factors. Two different sets of policy responses are required in each region: one set to help promote households’ escape from poverty, and another set to prevent descent into poverty.

Factors associated with falling into poverty include illness, high health care costs, death of income earners, crop disease, and land exhaustion, and they also include large family size, marriage expenses, and land division. Very few among these factors are directly affected by growth in the national economy.

In an order of incidence, factors associated with escaping poverty are diversification of income sources, land improvement, gains from small businesses, and obtaining a private sector
job. Growth in industry and the urban sectors as reflected in private sector or government jobs have not been the major removers of poverty in these villages. The direct impact on poverty of these factors relative to others has also declined over time. Because jobs have not been more significant, education also does not have a strong association with escaping poverty.

Pathways into and out of poverty have also changed over time. Descent and escape in the second time period are responsive to factors that are significantly different from those observed in the first time period. Ill health and death of income earners are associated with descent in both regions in the second time period, but these factors were not significant for descent in the first time period. Factors associated with escaping poverty are also different in the second time period. Regular monitoring of factors associated with descent and with escape in each region will be required in order to keep policy interventions more current and relevant.

3.5 Marginalization of the poor from T&V-based public extension services

Past methods to improve service provision, such as the Training and Visit (T&V), have not stimulated sufficient agricultural production to meet poverty reduction needs. Services have generally focused on increasing production through short-term technical packages, without paying attention to farmers’ circumstances, markets and long-term sustainability. Despite various attempts, the linkages between research, extension and training and between public and private partners have not been effective.

A WB evaluation study (World Bank 1996) on achievements and problems in national agricultural extension and research systems, concludes that its extension portfolio (of which 90% is based on the T&V model): is expensive and has inadequate funds to operate its services properly; has insufficient relevant technologies to promote which was frequently a problem and a major constraint in resource-poor environments; that neither research nor extension was sufficiently conscious of the need to understand the constraints and potentials of the different farming systems as a basis for determining relevant technology and technology development requirements; and that project design and implementation paid little attention to the farming community’s systematic participation in problem definition, problem solving, and extension programming. The report moreover concludes that a top-down culture is widespread in the public sector institutions in most developing countries and that this persisted in most WB projects and was contrary to the development of responsive services.
A range of extension projects using a modified T&V model (with slightly less rigid schedules and command structures) were financed through World Bank Loans to African Governments up to the mid 1990s and dominate the present day extension systems. These projects often combined the top-down T&V system with attempts to the use of participatory methods for mobilizing farmers. They were designed for World Bank loan financed and state-sponsored supply-driven approaches, with large field staffing levels with accompanying high support costs, and not well-suited to respond to a client-oriented approach, now emerging through various interventions. Farmers / clients are only marginally involved in the planning and provision of the services which are intended to support them.

Currently agricultural services in East Africa have failed to address the important needs of women and vulnerable groups, forming the majority of the farmer population. In addition, frequent institutional changes associated with structural adjustments, as well as inadequate funding and staff incentives have further reduced the capacity to adjust to new approaches.

A case study carried out in Adjumani district, located in Northern Uganda, illustrates this. A survey among 215 random selected households revealed that a third of the farmers had never received agricultural extension advise, and among those receiving advice the majority of information were received from NGOs and donor organizations, while only 4% of the farmers acknowledge to have received extension advice from local government extension service. See figure 1.
The survey furthermore the content of extension advice were biased against poor farmers, who widely reported that the extension messages received were monotonous and required external inputs that were not available and affordable for them. The T&V program is based on crop production and emphasizes 2-3 priority crops chosen by extension and a few privileged farmers' representatives with whom the local government extension worker collaborate and who attended pre-seasonal workshops (extension focuses on crops only and leaves out livestock and agri-business components). As a result, seasonal activities do not represent key priority enterprises of the majority of (poor) farmers, who stop attending the meetings. They study for
example fund a significant relationship (5% Chi square) between well-being category and advise received on use of fertilizer (using the well-being ranking methodology discussed in section 3.2).

### 4.0 Opportunity structures: reform of agricultural advisory services

#### 4.1 Demand-Driven Advisory Service Model

A new radically different model for extension has emerged in recent years (Neuchatel Group 1999 and 2000, WB/AKIS 2000, Government of Uganda 2000, Hagmann et al 1999, WB 2003). One of the key players in placing this issue on the international development agenda is the Neuchatel Group\(^3\), an informal group of bilateral and multilateral cooperation agencies and institutions involved in sub-Saharan African countries who, since 1995, have held a series of meetings and initiated case-studies to contribute to thinking on the objectives, methods and means of support for agricultural extension policies. The main elements of these new extension service systems, as expressed by the Neuchatel group include (Neuchatel 2001):

- **Deepening decentralisation.** Following dissatisfaction with the centralised and standardised T&V extension system, decentralisation and pluralism have been identified as preconditions for making extension accountable to smallholders at the field level.
- **Changing the role of the extension worker from advisor/teacher to facilitator.** Extension agencies are no longer only providers of technologies and advice but create conditions for a broader flow of information and knowledge. ‘Extension workers’ are being transformed into ‘farm advisors’ who engage their client farmers in critical thinking about their agricultural endeavours and about the management of their farming enterprises.
- **Changing the relationship between smallholders and extension providers, by increasing farmers’ influence and control over the extension service.** Cost sharing through the introduction of fee-based structures is seen to support a demand-driven relationship and increase sustainability, but has raised equity concerns.
- **Assisting smallholders to link with market opportunities.** Extension agents were in the past discouraged from analysing changing priorities and local specific opportunities themselves. The new approaches see an enhanced role of farm advisors in identifying market

\(^3\) The Neuchatel group is comprised of representatives from GTZ, USAID, DfID, Danida, CF, Sida, CDC DDC, NeDA, FAO, IFAD, ECIDG Viii, CTA and WB.
opportunities for smallholders based on an understanding of local cultivation practices and diversity of products.

- Contracting out of services. Public finance does not necessarily mean public delivery of advisory services. A variety of new ideas are emerging for innovative forms of collaboration between public finance and private actors.

National Agricultural Advisory Services (NAADS) in Uganda is the first example in Africa of a national extension system following such principles. NAADS has been implemented since 2001 with a vision of a (largely) publicly financed, decentralized, farmer-owned, and private-sector-serviced extension delivery system. NAADS has resulted in rural institutional innovation. Farmers have been supported in organising into groups and requested to register and comply with NAADS regulations. A new farmer-owned local institution, the farmer fora, has been created at sub-county and district level with the aim enabling farmers’ direct control over demand for agricultural advisory services. On the supply side, a tender process have been established through which private sector advisory service providers can compete to gain contracts with Farmer Fora through a tender process. District NAADS staff and LGA play a crucial role in facilitating the process.

4.2 Mixed experience with demand-driven agricultural advisory services in Uganda

Progress reports and independent studies indicate that, while the institutional innovation associated with NAADS (i.e. sub-district farmer fora) has been implemented in large parts of Uganda, human development capacity continue to be inadequate and negatively affect the outcome of the reform process. Problems are in particular associated with NAADS groups being inadequately empowered; with inadequate change in attitude and mode of operation of public sector NAADS staff; and with inadequate private sector development (GOU 2005, CEED 2004).

Interventions such as NAADS interact with ongoing rural social processes. The extent to which poor farmers can take advantage of these new opportunity structures depend on the social, economic and political environment within which it is implemented. The following two examples of very different experiences with NAADS illustrate the challenges and potential of demand-driven advisory services and its relevance to poor farmers.
4.2.1 Experience with NAADS in Kabale district

Kabale is a very poor district located in a mountainous area. Most farmers depend on cultivating small patches of terraced land of poor quality, while a smaller group of non-poor control land in the valley bottoms for livestock keeping and crop cultivation (Friis-Hansen 2004). The civil society in Kabale district is surprisingly strong, with a large number of community-based organizations, while its local government is assessed to be weak with a top-down management style and poor accountability to its rural constituency (Boesen, et al 2004, Friis-Hansen 2004, Opondo 2005).

The farmer group formation process in anticipation of NAADS was poorly planned and facilitated. The result was a huge number of farmers forming groups or registering existing groups in compliance with NAADS regulations. About 500 farmer groups, with a membership of 10,000, registered with NAADS Rubaya sub-county alone (Boesen 2004). Many very poor and youth have been unable to pay group membership fee and thus underrepresented in farmer groups. The group formation seems to have been driven by a wish to access tangible external inputs. The failure of this illusion led to considerable discontent and high turnover of group membership.

In principle the sub-county farmer fora is made up by representatives from registered farmer groups. In Kabale, the NGO contracted sensitization teams, with advice from local extension workers, parish chiefs and other leaders, selected sub-country farmer fora members in a top-down maker and subsequent requested the farmer groups to confirm their choice. Not surprisingly, the farmer fora membership in Kabale came to reflect the local power structures and became dominated by vocal and influential non-poor farmers, retired government leaders, school teachers etc. (Opondo 2005). The farmer fora became illegitimate in the view of farmers, more occupied with demanding high ‘sitting allowances’, locating the technology trials on their own fields, and demanding ‘kick-backs’ for allocating contracts to private service providers (Opondo 2005, Boesen 2004, Friis-Hansen 2004).

The enterprise selection process undertaken by sub-county farmer fora have, not surprisingly, been fraud and caused additional disillusion among members of groups. A wide spectre of enterprises were prioritized by NAADS compliant groups, reflecting the diverse agricultural and natural resource management needs linked to peoples’ livelihood. However, these were reduced to three annual contracts for technical advice on commercial enterprises from
private sector service providers. The advice provided has largely been irrelevant as strict NAADS regulations restrict knowledgeable community-based service providers from being contracted.

4.2.2 Experience with NAADS in Soroti district

In contrast to Kabale the implementation of NAADS in Soroti district has been highly successful. Agricultural production and marketing are booming and seem to be inclusive of the poor (see later). Well functioning farmer fora exist in all 14 sub-counties. A supportive local government in Soroti district has been conducive to the establishment of an enabling environment for the establishment of a private sector in response to new opportunities provided by the NAADS policy. Ten small private agricultural advisory companies have emerged in Soroti district since 2002, and these carry out short term contracts of the duration of a few months at a time for sub-county farmer fora. There seems to be a healthy competition between the different service provider companies (Friis-Hansen 2005).

Friis-Hansen (2005) identifies two processes responsible for the success of NAADS in Soroti; (i) institutional transformation of LGA agricultural staff; and (ii) farmer empowerment through farmer field schools. Both of these transformations started well before the NAADS reform, but they have enabled people to take full advantage of the opportunity structures provided by the extension reform. Decentralization in 1996 allowed the department of extension to start a process of institutional transformation aimed at changing attitudes and modes of operation that were rooted in the conventional T&V extension method. With some external support (but largely on their own, the LGA staff designed a workable farmer-managed extension programme based on a participatory bottom up planning processes.

The farmer field schools approach was introduced into the district 1999-2002 under the East African small sub-regional pilot project for farmer field schools (financed by the International Fund for Agricultural Development (IFAD) and implemented by the Global IPM Facility Project under the auspices of FAO).

The objectives of FFS in Soroti district include: (i) Increase the expertise of farmers to make logical decisions on what works best for them, based on their own observations of experimental plots in their FFS. (ii) Establish coherent farmer groups that facilitate the work of extension and research workers, providing the demand for a demand-driven
system. (iii) Enhancing the capacity of extension staff to serve as technically skilled and
group sensitive facilitators of farmers’ experimental learning. By 2002, when the FFS
project ended, some 192 FFS had been established in Soroti districts following a foci
model with at least 15 FFSs in each sub-county. About 4,800 farmers have undergone
season-long training in integrated production and pest management (IPPM). Of these, 90
farmers have undergone a refresher training of trainers to become farmer-facilitators
establishing FFSs in their respective sub-counties (IFAD 2002b).

A clear indicator of the strong farmer empowerment aspects of the FFS approach to
learning and organisation is its positive effect on the establishment of NAADS groups and
Farmer Fora. In sub-counties where a critical mass of FFS groups existed, these seized the
opportunity and converted into NAADS groups. Interviews with SCFF members indicate that
individual FFS graduates who are no longer members of an FFS group have often been the
driving force in establishing new NAADS groups.

4.2.3 Plans for agricultural advisory service reform in Tanzania

The SISP programme is planned to cover all districts in Tanzania. It will provide support
to capacity building and reform, which will lead to improved district agricultural planning,
agricultural investment appraisal and review, agricultural services reform. Emphasis will be on
strengthening farmer empowerment, public sector reorientation, and capacity strengthening of
private service providers as follows:

**Empowerment:** Strengthen farmer capacity to demand for agricultural services through
knowledge, organization and financial empowerment, leading to partnerships with agricultural
service providers with greater control of resource use and greater accountability of service
providers to farmers. Support will be provided for farmer group formation and facilitation,
technology testing, group leadership and networking, communication and resource centres.
Specialists in these areas will be contracted to work with new and existing groups. Farmer
groups will link through support for farmer fora at ward and district level, training to interact
with local government and to procure and manage contracted services, and to building farmer
interests and needs into village, ward and district plans.
LGA re-orientation: Support for re-orientation training of district extension personnel, preparation and implementation of reform plans for DALDO/Cluster Heads’s offices, selective training. Other support includes procurement of transport, equipment and communication facilities. As LGAs join the programme they will be eligible for increased capacity building resources. These will be earmarked for the additional reforms and re-training needed following their own assessment of public service provision needs and an analysis of current staff levels and functions and future core needs.

Private service providers: Support publicity and awareness building of opportunities for private-provided services and the associated operating modalities, technical and business advice. Support will be given for the transition of civil servants who will resign from the public service to become private providers. Source: GOT 2005. Agricultural Sector Development Programme.

Eight examples on project that have experimented with approaches to demand driven advisory Services in Tanzania are discussed in the annex 2.

5.0 Farmer empowerment through farmer field school

The FFS approach exposed farmers to a learning process in which small groups (4-5 farmers) regularly observe a field as an entire ecosystem and learn to make crop management decisions based on an analysis of the observations. This way farmer’s capacity to validate new technologies or multiple ways of responding to field situations gradually improves. The systematic season-long training following the crop growing cycle from land preparation to harvest enables the farmers to adapt technologies to suite their situation and also become more responsive to change. The methodology has thus proved effective in group formation and motivation and in enabling farmers to undertake farming oriented self-learning with a trained moderator (IFAD 2002).

While IPPM is the entry point, farmers' priorities have influenced the programme to add into the curriculum other aspects that have a direct bearing on production. Most important additions are HIV/AIDS, basic principles of nutrition, reproductive and family health care, malaria control, immunisation, basic principles of environmental management, water and soil conservation, and basic financial management skills. The multi-dimensional approach has led to strong informal linkages across government departments, Non Governmental Organisations (NGOs), Community Based Organisations (CBOs) research

4 The cluster (in reformed districts) is composed of crops, livestock, fisheries, forestry and cooperatives/marketing
and other service providers. This has even been easier because of the grant system used in the programme. At the establishment of the FFS, farmers, under the guidance of a facilitator, write a simple grant proposal stipulating their background, common goal, what they intend to do, their contribution, sustainability of the group, work plans and budget for the season-long training. Then funds are transferred directly to their bank account, including the facilitators' allowances.

Qualitative interviews with FFS members and leaders indicate that participation in a season-long learning cycle based has greatly improved FFS member’s analytical skills and enabled them to articulate demands more accurately and effectively. A second effect mentioned during all interviews is the creation of trust among FFS group members. Even though external support for the FFS groups in Soroti district ended in 2002, many of the groups have continued using their own savings to finance activities.

The following provides an assessment of the effectiveness of farmer field schools for knowledge and organisational empowerment of farmers in selected districts in Kenya.

**Assessment of farmer knowledge and organisational empowerment in Mwingi district**

In May 2004 a participatory impact study was conducted by 10 extension staff, farmer facilitators and farmers. Six FFS were randomly chosen as study population out of a total of eighteen implemented in Mwingi district, Eastern Kenya, during 2001-2002. The impact assessment was conducted through a one-day exercise in each separate FFS community selected and various PRA type of exercises were used to guide discussions in the group and to capture information on parameters developed in beforehand by the evaluation team.

- From all the six participating FFSs it was indicated that in most households man and wife agree on which farming enterprise to engage in, following FFS training. The farmers articulated an improved interaction between sexes and age-groups at community level.
- A majority of farmers are able to demand for specialized extension services thus improved collaboration with extension service providers has been noted.
- All the six groups have partnered with other FFSs to form networks for collective bargaining.
• There is enhanced farmers’ confidence and participation in community leadership. In Khaghui FFS the chairperson of the group is also the chairperson of the District FFS network.

• In four out of the six FFSs, farmers know what variety of Maize to plant and where to procure the seeds. It was also observed that some farmers store the seed for the next season and they act as regional seed distributors (read seed bulkers).

• Katuka FFS, based on the ladders tool, reported a 30% increase in income generation activities, as a result of business training on the trial plots and the use of gross margin analysis.

• All the FFSs reported an increase in dissemination of new knowledge and Indigenous Traditional Knowledge (ITK) through Farmer Innovators.

• In addition more farmers have been equipped with knowledge and skills to conduct their own on-farm research. Five out of six FFSs reported that the technical skills gathered in FFS have led to a lot of farming activities at household level.

Example on participatory monitoring of the impact of FFS in Mwingi district
The following indicators of organizational empowerment were identified: (i) The ability of FFS groups to organize and run their affairs without or with minimal external monetary support; (ii) level of community, divisional, district FFS group networks; and (iii) strength of the interaction between FFS associations and other private and public stakeholders.

In most FFS groups there are committed members guided by strong group constitutions. Most of them have accessed the revolving fund scheme and they have been able to initiate projects which make the groups cohesive and showed to be the strongest and active FFS. Two out of the six groups have purchased goats for each member in the group. Five out of the six participating FFSs still have commercial and trial plots, providing them with an extra source of income, learning platform and a secure environment for experimentation and production. The baseline data confirms that every group has a bank account and members contribute regularly to that bank account. Some groups give personal loans to the group members.

Different levels of networking exist among FFS groups in Mwingi district:
(i) Inter-FFS groups (e.g. Kakunike, Katanga, Kyambanwa, Kyangwithya and Kavuta)
(ii) Inter-FFS networks at divisional level.
(iii) Inter-FFS networks at district level.

One of the most important functions of the FFS networks in Mwingi district is improved collective marketing of farm produce through FFS networks, especially for green gram.

Additional monitoring data for FFS in Kenya is shown in annex 3,4 and 5.

6.0 The role of farmer empowerment for social effectiveness of demand-driven advisory services

The following section assesses the impact of farmer empowerment (farmer field school) on the effectiveness of demand-driven advisory services (NAADS) in Soroti district, Uganda.

Well-being among members of farmer groups and non members

FFS or NAADS farmer group membership is correlated with wealth on a 1% significant level. The proportion of poorest farmers among farmers who are not group members is three times higher than for farmers who are group members. Almost two thirds of the farmers who are members of FFS/NAADS groups are characterized as better off compared with 41% of non-group members. A particularly striking feature from the table is that only 7% of the FFS/NAADS
group members are today in the poorest category of farmers (compared with 20% of non-group member farmers).

Table 3. Social differentiation of NAADS and FFS groups in Soroti district 2004

<table>
<thead>
<tr>
<th>Poverty level ***</th>
<th>Membership of a group (mostly FFS)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Overall</td>
<td></td>
</tr>
<tr>
<td>Better-off</td>
<td>63.0%</td>
<td>40.8%</td>
<td>57.4%</td>
<td></td>
</tr>
<tr>
<td>Less poor</td>
<td>30.2%</td>
<td>38.8%</td>
<td>32.4%</td>
<td></td>
</tr>
<tr>
<td>Poorest</td>
<td>6.8%</td>
<td>20.4%</td>
<td>10.2%</td>
<td></td>
</tr>
</tbody>
</table>

Note: *** - 0.01 level of significance. N= 411 households. Source: DIIS/MUK Soroti household survey 2004.

As no useful historic baseline exists in Soroti district, a key question for the study was the extent to which farmers were poor at the time they entered FFS groups. This question was examined through two different methodologies. Firstly, qualitative in-depth interviews were carried out with key informants, including members and leaders of FFS groups. Secondly, additional statistical analysis was undertaken comparing the specific characteristics of non-poor among the farmer group members and non members in an attempt to identify their likely pathway out of poverty.

Using lifecycle interviews to assess change in well-being

Qualitatively in-depth lifecycle interviews with FFS/NAADS group members were carried out in September 2004. These unanimously confirm that the majority of the farmers who can be characterized as better-off today were in the poorest and less poor categories of farmers when they joined FFS in 1999-2000. Women, many of whom are illiterate, make up the majority of the FFS/NAADS group members. The interviews gave strong indications of a significant poverty reduction among female members of FFS/NAADS groups (which was later confirmed during interviews with FFS facilitators).

Qualitative interviews further provided evidence about the FFS group formation process, which has implications for their inclusiveness of the poor. The FFS groups were formed on the basis of self selection (and exclusion) around interest in learning about a common resource.
lesson learned for group formation processes elsewhere in Uganda and beyond is that when there are immediate tangible benefits to be gained from a membership of a group, the formation process is likely to be biased against the poorest farmer if there is no specific mechanism in place to ensure their inclusion. The focus in FFS groups on experiential learning based on principles of informal adult education, rather than access to tangible goods, seems to make FFS groups inclusive of poor farmers. Interviews revealed that farmers’ who joined as members mainly because of an interest in access to external funds, often left the group within a short period when realising that there were no immediate tangible benefits to be gained from membership. The interviews revealed that because of the lack of explicit attention to equity in the group formation of FFS, the poorest farmers were sometimes excluded by less-poor and better-off farmers, as they were seen to be less capable of contributing to group activities.

**Formation of Farmer Field School groups**

Interviews with members and leaders of FFS groups indicate that recruitment of members of FFS groups in Soroti were done on the basis of interest in learning new skills among a spectrum of different types of farmers, including many poor farmers. FFS members and local leaders interviewed stated that all types of farmers entered FFS and that the groups were not biased towards better-off farmers. The FFS groups experienced an initial high turnover of members, with up to half of members leaving the group within the first year. The farmers leaving the groups can in part be characterized as farmers leaving because expected material benefits did not materialize and in part as better-off farmers leaving as participation was viewed as too time consuming compared with benefits. Common characteristics of farmers who have remained members of FFS are an interest in learning and a willingness to invest time and effort in carrying out joint activities. The majority of FFS members are women and the FFS groups have shown to be inclusive of illiterate and other socially disadvantaged persons.

**Using T-test of well-being indicators to identify a pathway out of poverty**

Quantitative statistics were used to gain an understanding of the pathways out of poverty for households with members in FFS/NAADS groups. A T-test was carried out for each of the
well-being indicators with an aim to compare the integrity of the data set for FFS/NAADS group members and non-members. The analysis reveals that FFS/NAADS group members differ significantly from non-group members within four out of the thirteen indicators, namely: (i) working as casual labor; (ii) hiring assistance from other farmers; (iii) household food security; and (iv) ownership of livestock. The first three of these four well-being indicators differ from the remaining 10 indicators, in the sense that they do not require capital for long periods of time to bring about change. Social mobility within the first three categories therefore seems plausible, compared with categories such as land ownership or housing standard, which are less likely to change within a four-five year period.

Box: Personal history of Mrs Grace Asio, Chairperson for Asureli women’s FFS: Social mobility through FFS/NAADS membership

Grace joined a new women only FFS in year 2000. Neither Grace nor any of the other 29 women in the group were well off when they joined the group. During the first year of FFS the group went through a classic FFS curriculum studying the growth of cotton plants, and associated pest and diseases and IPM solutions, including identification of insects and timing of spraying. During the second year the group shifted to groundnuts and adapted their new knowledge of insects and natural pesticides to this crop. The group learned to use changes in appearance of the groundnut leaves as an indicator of plant health. During the third year they experimented spraying with pesticides made from the Neem tree compared with chemical pesticides (no major difference in effect). During year four (the current season), the group has discussed market outlets for cash crops including groundnuts, sunflower and sweet potatoes.

The FFS group has continued to cultivate a common field, but also applied what they learned to their individual fields. During weekly group meetings the members inspect their common crop as well as selected individual fields. The group has a bank account and part of the proceeds from sale of crops from their common field is accumulated in this account.

Changes in Grace’s life since joining the FFS/NAADS: (i) Gained more confidence and is now able to effectively articulate demands to service providers; (ii) Learned better crop management and applied it to her fields; (iii) Changed her mind set and now understands the importance of
agriculture being profitable; (iv) Has become better at generating new ideas; (v) Learned the value of organisation (i.e. that the group is strong when working together).

Changes in Grace’s household since joining the FFS/NAADS: (i) Higher yields have led to increased household crop production. Before FFS Grace often experienced periods of food shortage. Her household is now food secure; (ii) Able to take her children into secondary school; (iii) Before income was a gamble, now, income from agriculture is more secure and more income from comes non-agricultural activities (e.g. FFS facilitation and training activities); (iv) Before she worked as a casual labor on other farmers’ fields. Today she hires other farmers to work for her; (v) she has bought two cows from increased household income. She still has no oxen but is looking for one to buy. She now hires oxen for ploughing using cash, instead of working for the owner of the oxen.

Qualitative interviews among FFS/NAADS group members in September 2004 confirmed the hypothesis that changes within these four areas constituted a common pathway out of poverty for these farmers. This is illustrated by the interview with Grace in the box above. Grace estimates that about a quarter of the FFS group members have been able to escape poverty through what they have learned and done together in the group.

The central argument in this study is that a combination of farmer empowerment through experiential learning in FFS groups and changes in the opportunity structure through transformation of LGA staff, establishment of sub-county farmer fora, and emergence of private service providers, has been successful in reducing rural poverty. Agricultural growth among poor farmers in Soroti district has been the key reason for poverty alleviation.

The study has shown that farmers who are currently members of FFS/NAADS groups are significantly better off than non-member farmers. The area-specific well-being ranking methodology used in this study, which is based on farmers’ perception, has proved to be a very useful impact assessment technique. Qualitative interviews further indicate that most farmers were among the poorest or less poor when they joined FFS. This is a major achievement and evidence in support of the hypothesis that farmer empowerment through demand-driven advisory services can contribute significantly to alleviating rural poverty. The analysis further showed that a pathway out of poverty included labor, food security and investment in cattle.
The explanation for the higher rate of adoption of technology within FFS/NAADS groups is the combination for broad-based farmer learning in FFS combined with subsequent access to advice on commercial enterprises. A lesson learned is that market-based spread of pro-poor technologies requires an institutional setting that combines farmer empowerment with an enabling policy environment.

7.0 Conclusion and social policy perspectives: Assisting the poorest through socially inclusive agricultural policy

East Africa is characterized by widespread poverty, which is largely a rural phenomenon. The past decade, characterized by post-adjustment market liberalization, has reinforced social inequalities as market forces have largely failed to benefit the rural poor who have little or no purchasing power. In spite massive rural market failures, existing social policies continue to be aimed at the urban public sector and largely ignore the rural poor.

International debate is arguing for a re-conceptualization social policy in an attempt to align its scope and content to the socio-economic realities of poor developing countries. The debate suggests that a citizen-centered social policy should aim at provide the foundations for poor people to exercise agency free from deprivation and discrimination. This study has aimed to identify elements of such foundations within agricultural sector policy reforms in East Africa.

Using farmers’ perception of well-being to characterize social differentiation within rural communities has shown to be highly useful for our understanding rural poverty. Combining qualitative area-based statements of well-being with randomly sampled quantitative household questionnaires constitutes a powerful methodology for both targeting and monitoring different social groups of farmers’ access to and benefit from agricultural advisory services.

This study examines the extent to which the current agricultural sector reforms, which based on a model of demand driven advisory services, are inclusive of people belonging to the poorest well-being category. The experiences with NAADS in Uganda are mixed. In Kabale district the program seems to be reinforcing existing inequalities and power relations, while the NAADS is shown to have had remarkable social impact in Soroti district.

The study identifies two additional interventions / social processes that have been important for the success of NAADS in Soroti district, neither of which are part of the reform program. The first process is farmers’ knowledge and organizational empowerment, brought...
about through farmer field school. The field school approach is shown to be highly complementary to the extension reform program, as farmers learn to articulate informed demands for advisory services and use the field school groups as an organizational platform for doing so in an effective manner. The field schools’ use of adult educational principles for learning, are shown to be inclusive of the people from the very poor well-being category, many of which are illiterate women.

The social policy perspective of this finding is that many farmers in East Africa are not currently adequately prepared to take up the role assigned to them in the demand driven advisory services model. Experience from Uganda clearly indicate that there is a need for strengthening and scaling up external support for group-based farmer learning processes, based on principles similar to those practiced in farmer field schools. NAADS is currently preparing farmers for participation in NAADS groups and in sub-county farmer fora, by contracted out ‘sensitization’ to local NGOs. This approach is clearly inadequate and likely to reinforce existing social inequalities and further marginalize the poorest farmers.

The second process is the institutional transformation of local government staff. Changes in attitudes and mode of operation among government departments do not come about overnight. However if the local political will to change is strong, and if there is a local champion willing and capable of driving the process, experience from East (and Southern) Africa show that dramatic institutional transformation can take place within time span of a few years.

The social policy perspectives of this finding is that even though the demand driven advisory model is based on privatization of service providers, the integrity and legitimacy of local government staff to act as ‘honest brokers’ between new farmer-owned institutions and the private sector, is crucial for the success of the reform. This is of particular importance for farmers belonging to the poorest well-being category, as these are likely to have to gain most from establishment of well functioning socially inclusive rural institutions at sub-district level. A social policy element could be to design incentives such institutional transformation processes to take place.
References


Bukenya C. 2003. Exploring the key issues in the National Agricultural Advisory Services Programme implementation process in Uganda: Experiences from the first two years in three trailblazing districts.


GoU 2005. Mid-term review of NAADS.


Annex 1. Scoring system for indicators constituting the household poverty index

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILAND</td>
<td>33</td>
<td>Own (including leasehold, customary tenure and freehold) more than five acres of land</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>Own (including leasehold, customary tenure and freehold) between one and five acres of land</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>Do not own land or own less than one acre</td>
</tr>
<tr>
<td>INONAG</td>
<td>33</td>
<td>Somebody have “high entry cost” non-agricultural sources of income, like being professionals, having shops or businesses (trading, transport, etc.)</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>Somebody have non-agricultural sources of income like tailoring, building, crafts-making, brewing beer, making and selling bricks, charcoal etc. or preparing and selling food</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>Nobody is engaged in non-agricultural sources of income</td>
</tr>
<tr>
<td>ILABOUR</td>
<td>33</td>
<td>Nobody from the household works for others as casual laborers</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>Somebody from the household work for others as casual laborers, but either only three months or less per year or more than three months per year but not more than once a week</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>Somebody from the household work for others as casual laborers more than three months per year or less than three months per year but almost every day</td>
</tr>
<tr>
<td>IANIMAL</td>
<td>33</td>
<td>Somebody in the household have cattle or oxen, possibly together with other animals</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>Nobody in the household has cattle, but they have other animals (goats, sheep, pigs, chicken, turkeys or rabbits)</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>Nobody in the household has any animals</td>
</tr>
<tr>
<td>IHIRE</td>
<td>33</td>
<td>Hire laborers for at least two of the following tasks: land clearing, ploughing, planting, weeding and harvesting</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>Do not hire laborers or hire laborers for one task only</td>
</tr>
<tr>
<td>IFOOD</td>
<td>33</td>
<td>Have not experienced a period of food shortage within the last year</td>
</tr>
<tr>
<td>Indicator</td>
<td>Score</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>Have experienced a period of food shortage within the last year which lasted less than two months or which lasted longer but the only recourse that was taken was eating less meat, using farm products rather than buying so much or buying food</td>
</tr>
<tr>
<td>IFEED</td>
<td>100</td>
<td>Have experienced a period of food shortage within the last year which lasted two months or more</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>Bought sugar when they last ran out of sugar, eat meat at least once a month and fry food at least once a week</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>Either did not buy sugar when they last ran out of sugar, or eat meat less than once a month or fry food only occasionally (but not all three conditions at once)</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>Went without sugar last time they ran out of sugar or rarely buy sugar, eat meat less than once a month and fry food occasionally</td>
</tr>
<tr>
<td>IHOUSING</td>
<td>33</td>
<td>Have houses with brick or plastered walls and iron or tile roofs</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>Have houses which might have iron roof, plastered walls or walls of bricks or unburned bricks but not both conditions at once</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>Have houses with walls made of old tins or banana or other leaves and grass-thatched roofs or roofs made of banana or other leaves, old tins or polythene, or have houses that are in need of major repairs</td>
</tr>
<tr>
<td>IHEALTH</td>
<td>67</td>
<td>Nobody in the household suffers from T.B., HIV/AIDS, anemia or chest related diseases or is disabled</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>Somebody in the household suffer from T.B., HIV/AIDS, anemia or chest related diseases or are disabled</td>
</tr>
<tr>
<td>ISCHOOL</td>
<td>33</td>
<td>Have or have had children at secondary school or higher or have children between 6 and 12 years in private or other schools at the same time as not having any children between 6 and 12 years who are not in school</td>
</tr>
<tr>
<td>Indicator</td>
<td>Score</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>Have not (had) children in secondary school, and do only have children between 6 and 12 years in UPE school while not having any children between 6 and 12 years who are not in school</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>Have children between 6 and 12 years who are not in school</td>
</tr>
<tr>
<td>IDRESS</td>
<td>33</td>
<td>Woman owns shoes and both the woman and the children got new clothes about three months ago or more recently</td>
</tr>
<tr>
<td></td>
<td>67</td>
<td>Woman either does not own shoes or last got new clothes half a year or more ago or the children last got new clothes half a year ago or more or the woman does not own shoes and last got new clothes more than a year ago but children last got new clothes three months ago or less</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>Woman does not own shoes and both the woman and the children last got new clothes more than a year ago</td>
</tr>
<tr>
<td>IMARITAL</td>
<td>67</td>
<td>Household head is male or a married woman</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>Household head is a widow or a single or divorced woman</td>
</tr>
<tr>
<td>IAGE</td>
<td>67</td>
<td>Either the household head or the wife is below 55 years of age</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>Both the household head and the wife are 55 years or above</td>
</tr>
</tbody>
</table>
Annex 2 Experiences with Demand-driven approaches to Agricultural Advisory Services in Tanzania


I Kagera Agriculture and Environmental Management Project

Participatory technology generation

The KAEMP approach to technology generation comprises a participatory needs assessment followed by a review of available technical knowledge and planting material, which are then compiled into relevant technologies in a participatory dialogue between KAEMP staff and farmers. This dialogue resulted in adjustments to the suggested technologies. A range of the technologies is today promoted by KAEMP, including pathogen free banana planting material and associated integrated pest management, knowledge about how to keep the banana plants free of pests and diseases, cloned coffee plants, soil fertility improving legumes and fallow species, vanilla plants for crop diversification, bio-pesticide herbs, and many others. The technologies seem to be able to significantly improve the productivity of poor farmers.

As a consequence of the initial participatory technology generation dialogue between KAEMP staff and farmers, a number of research needs were identified, as well as relevant technologies. KAEMP contracted ARI Maruku to undertake four adaptive research studies:

- Evaluation of the effectiveness of botanical extracts (based on both exotic plants identified by ICIPE and local plants identified by farmers) on control of coffee rust (CLR) disease and coffee berry moth (CBM);
- Evaluation of local cassava land races for cassava mosaic and green mite resistance;
- Evaluation of the effect of integration of plant residues and mineral fertilisers on soil fertility and quality and quantity of composting materials;
- Evaluation of different legume plant species for fertility restoration.

The KAEMP approach to participatory learning and technology adoption is Integrated Pest Management/Integrated Nutrient Management (IPM/IPN) groups, in which some 25 farmers, facilitated by an agricultural extension worker, observe and learn about technologies...
generated by KAEMP on five fields owned by group members.

**Participatory Technology Learning and Adoption: IPM/IPN Groups**

KAEMP has developed an innovative participatory learning approach to technology dissemination among poor farmers, by organising farmers in Integrated Pest Management (IPM)/Integrated Plant Nutrition (IPN) groups including approximately 25 farmers and facilitated by the local agricultural extension agent, district co-ordinators and KAEMP specialists. Each group works on five fields, owned by group members, which function as the groups’ experimental laboratory where they observe and learn about technologies generated by KAEMP, while the production from the fields belongs to the owner of the field.

The selection of participating groups involved sensitization campaigns between KAEMP staff and village governments followed by public meetings during which farmers were briefed about the project and asked to volunteer to become members of the IPM/IPN groups. Groups are encouraged to formulate their constitutions and acquire a legal status through registration as farmers’ associations. The constitutions lay down the rights and responsibilities of group members. Each group has a leadership that includes the chairperson, secretary and treasurer. Apart from the traditional formal positions mentioned above, groups select members to other positions such as discipline overseer, adviser, etc. according to needs.

The IPM/IPN philosophy has three basic components:

- To grow a healthy plant; to conserve natural enemies; to observe fields on a regular basis; and to make farmers experts on their own fields. These are achieved through different learning and technology dissemination techniques including:
  - **On Site Training - Learning by Doing.** This method involves on site training of IPM/IPN working groups by demonstration. Demonstration plots of about 0.1 hectare serve as training sites where farmers within and outside the village can visit to learn and experiment various farming techniques. Farmers are also encouraged to set aside two plots: one for IPM/IPN practices and another for traditional practices in order to compare their performance. A group member has to enter into agreement with KAEMP that she/he would provide a field to be used as a demonstration plot. KAEMP then pays for the full establishment of the demonstration plot and supervises its management.
  - **Farmer-to-Farmer Visits.** Intra group visits were funded by the project as part of a
technology generation and dissemination learning process. This allows learning through observation, discussion and interaction among peer group farmers. Host farmers demonstrate IPM/IPN technologies as jointly planned with the village extension worker.

2 Mara Farmer Initiative Project

Support for devolution of power from LGA to farmer groups

The ongoing decentralization reform has increased the importance of capacity building within the emerging district administrations. MARA-FIP has delivered material assistance to LGA structures in the Mara region, particularly in terms of transport and office equipment and with incremental recurrent costs. The MARA-FIP design gave a central role to interaction with beneficiary communities, including the project target groups, either through existing village administrative structures or through new groupings and to establishing local development management capacity that could identify priorities and maintain a dialogue with external stakeholders. Within such an institutional set-up, other farmer groups could be formed around specific economic activities. In practice MARA-FIP has, through an NGO (CARE), supported user group formation and savings mobilisation in the region. MARA-FIP has been successful in group-mobilisation and in directing resources to interested beneficiaries. However, the second and much more challenging task of building management capacity and effectiveness within the mobilised groups on the basis of their own resources has been far less successful.

The participatory interaction between MARA-FIP/CARE and farming communities appears to have been employed mainly for initial problem solving analysis and setting priorities within a limited menu of project interventions. The focus of MARA-FIP/CARE thereafter shifted to establishment of single-purpose user groups around chosen investments or activities. As a consequence, many user groups have been formed in response to “awareness creation”. The implementation mechanisms that have been adopted include a large degree of self-selection by beneficiaries, which has resulted in mobilizing farmers from the target groups in the crop components. There is however, a danger that some groups were formed with the purpose of accessing donor funds and do not have the ability to manage, operate and maintain structures and activities beyond the project life. This may be the case with the saving groups in which the

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IFAD. Mid Term Review of MARA-FIP.
interest of many members became muted once it had become clear that, (rightly), no supplementary credit funds were available to boost group savings.

**Client-oriented research with a farming system perspective approach**

MARA-FIP supported client-oriented research with a farming system approach. This approach has been implemented through contracting research institutes. This approach to research involves farmers (as passive respondents to researchers’ inquiries) in the need assessment phase and in researcher designed and managed on-farm trials. Farmers, however, have no influence over criteria for evaluating research results and the decisions about which practices to promote.

Support for multiplication of pathogen free planting material of an improved cassava variety combined with research and training in IPM principles has revitalized cassava production in the Mara Region. Farmers who have been supplied with pathogen free planting material are self sufficient with planting material and will for a period of time have no need to access planting material from others. However, seed born pest and diseases are certain to build up in cassava plants over time and yields will decline if farmers do not have periodic access to pathogen free planting material. Community based production of seed and planting material is only likely to be sustainable if a number of conditions are met, including (i) establishment of a product which is distinguishable from local planting material and (ii) annual access by producers of improved cuttings to pathogen free planting material from research stations. Institutional requirements for the first condition are likely to include organising producers of planting material into seed associations and establishing an appropriate regulatory seed framework that enables the local seed association to test and label its members products as ‘quality declared seed’. The existing seed act in Tanzania only operates with a ‘certified seed’ category.

**3 FAO/GLOBAL IPM Facility Farmer Field Schools in Kagera Region**

**FFS Approach to Participatory Learning**

As noted by Nyambo and Kimani (1998), "Farmer Field Schools are an informal farmer driven 'bottom-up' education approach, which emphasise farmer empowerment through participatory technology development and transfer as well as the acknowledgement of the

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6 Ibid.
indigenous knowledge of farmers and their experiences.” It gives an opportunity for the key stakeholders (farmers, extension workers and researchers) to interact as partners in the development of IPM options. There is an emphasis on discovery learning. FFS is a group approach to agricultural technology development among farmers that focuses on adult - non-formal education through hands-on field discovery learning. Through continual monitoring of the fields farmers are able to detect and solve field problems.

The FFS approach also emphasizes four principles of IPM: 1) to grow a healthy crop; 2) to conserve natural enemies of insect pests; 3) to monitor the fields regularly; and 4) to become IPM experts through participation in FFS. FFSs are oriented to providing basic agro-ecological knowledge and skills in a participatory manner. The objectives of FFSs are to improve farmers' analytical and decision making skills, to develop expertise in IPM, and end dependency on pesticides as the main and exclusive pest control measure. In Kagera region the FFS approach started in 2000 and is used for banana and cassava production systems. These key food crops are highly infested and their production has been undermined by severe soil infertility.

**Farmers' Participation in FFS**

After the training of trainers, and the sensitisation of village communities, a village assembly is called and the assembly elects the members to each FFS. In each participating village there are two to four FFSs. As villages have a scattered homesteads structure, FFSs were organised to represent village neighbourhoods. There are 77 FFSs distributed among 21 villages in Bukoba district and 18 villages in Muleba district (2001 data). The FFS elects its leaders including the chairperson, secretary and treasurer. In some groups such as that of Ilogero, a discipline overseer with responsibilities of regulating individual's behaviour is also elected. A constitution stipulates rules and regulations of the group, as well as rights and responsibilities of its members. Attempts are underway to obtain a legal status through registration. It is the intention of organisers that FFSs should become more permanent groups that can cater for other issues.

At each village, groups were made in such a way that they are representative of the village neighbourhoods /sub-areas. The size of FFSs range from 25 - 30 members. This limit is due to budgetary constraints. Groups are encouraged to have other sources of funds, e.g. a commercial field where crops are grown for sale or self-sponsoring, where a member may decide
to contribute 2 bunches of banana to the group. FFS have group identity - name, adviser / patron. The FFS approach recognises the importance of gender balance. An equal opportunity is given to males and females to participate in FFSs. Out of the 1703 farmers involved in FFSs, 701 (41%) are females. The number of males is twice the number of females in only 27 out of 77 FFSs. In 23 FFSs females outnumber males, and in two FFSs the number of males and females is equal. Females are active also in leadership, with one of the top three leaders, always being female. Both males and females participate in all activities. In Ilogero village, for example, men found it difficult to cut and transport grass because this is traditionally a woman's job. But they were slowly getting used to it. Women’s participation is also important in dissemination of technologies, as they are often involved in many other village groups where they interact with other villagers.

There is a good relationship between FFS and the village authority. A number of village leaders participate in FFSs. Village authorities are often invited to various FFS occasions such as meetings. Based on qualitative information, it was found that FFS members felt that they had a responsibility and obligation to advance agricultural technology on behalf of all the villagers. They were also looking forward to support from the village government through provision of land for practicing the acquired skills to generate income; facilitation by formalisation; recommendation for receiving credit; etc.

Each FFS is facilitated by a grant of USD 400, equivalent to Tshs 320 000. The grant is intended to cover costs of establishing a training site; training costs such as VEO's allowance; (Tshs 45 000); graduation ceremony (Tshs 80 000); farmer to farmer visits (80 000); stationery, etc. FFSs are encouraged to have their own bank accounts and they have a say on how best to use the money.

On Site Learning and Experimentation

FFS is based on field participatory learning. The field is co-owned by farmers rather than by an individual farmer. Access to such a field is often through a contract between the FFS and an individual farmer (often a FFS member) who volunteers to make the field available for the group to be used as a training site. The contract period covered ranges from two to five years. As the FFS on banana takes 18 months, a two-year contract is considered too short. Where the lease is for a fairly long period, farmers have the incentive to invest in the development of the field, as
they are likely to benefit from the harvest. At the end of the contract period the field owner regains the exclusive right to ownership and use of the field.

The use of a jointly owned or leased field as a training site has some important implications on participatory technology generation. Joint ownership of the training field reduces risks of experimentation. Farmers can carry out experiments without worrying about personal risks. This allows them to take management decisions that might not have been taken for their own farms. Farmers are able to test a new method before applying it on their own farms, and this is important, as a technology may not necessarily work in a new location.

The fields used for training are selected from sites free from nematodes and weevils. There is only one training site per FFS. Field sizes range from 0.1 to 0.5 acre. The training field is divided into two parts: one section where farmers undertake farming as they are used to (farmers’ practice) and one section where IPM/IPN techniques are used. This enables farmers to identify the differences and advantages of better techniques of farming as introduced through IPM/IPN technologies. Where two crops are involved, then the field is likely to be divided into not less than four parts. In addition to these, there has to be an isolation distance between these parts to avoid pests and diseases from the farmer practice part infesting the field section used for experimentation. These fields appear to be very small to accommodate these requirements. It was not possible to establish the range of experiments farmers can make given the small size of the training fields.

Group discussion and presentation of field observations is an important way of enhancing farmers' participation. Each member is given an opportunity to participate. Local dialects are acceptable in presentations. As diagrams are used to represent the findings, the illiterate can somehow understand the items presented. However, illiteracy may hinder many farmers adequate participation in FFS activities.

The local language is used for training in FFS sessions. This gives a greater opportunity for local community members to participate in the learning process. However, Nyambo and Kimani (1998) have noted some limitations in the use of local languages. These include limited vocabulary for insects and plant diseases; existence of different languages and dialects make information exchange difficult; varying literacy level; poor infrastructure to enable information exchange between the FFS groups. FFS minimises some of these difficulties by use of drawings and live specimens.
Agro-Ecological System Analysis

FFS knowledge generation and dissemination is through agro-ecological system analysis (AESA), which is a discovery learning process. FFS members meet once a week to practice AESA. The VEO is available to facilitate the FFS only once a month. A FFS is divided into sub-groups of five. AESA involves first, data collection by these sub-groups through frequent observation of crops and fields. Observations cover land resources and management, weather, diseases, soil characteristics, nature of the crop/plants, etc. Specimens are collected from the field and findings are illustrated in flip charts. The drawings are kept as records for further reference in the future. Experiences elsewhere have shown that farmers have a far greater capacity to map, model, diagram, estimate, rank, score, experiment and analyse than outsider professionals have believed. The sub-groups present their findings and recommendations and the group holds a plenary discussion. AESA is therefore a tool that improves farmers' decision making through the interactive process of analysing situations from multiple viewpoints, synthesizing the analyses, making decisions, observing the outcome and then evaluating the overall impact. It is therefore not geared towards immediate material output. Through AESA, farmers acquire a new role as observers, analysts, experimenters, monitors and evaluators.

AESA enables farmers to share information through group discussions and plenary sessions. This is also important for empowering the farmers. Eventually the farmers own the knowledge they have acquired. Qualitative data have shown that farmers value their opportunity to participate in discussions with other farmers as one of the benefits they have acquired from participating in FFS.

Group dynamics are sequences of activities for the purpose of group development. It is an exercise in strengthening teamwork and problem solving skills, promoting creativity and creating awareness of the importance and role of collective action (Braun, et al, 2000). Activities include problem solving, mental puzzles or brainteasers and are both enjoyable and offer an opportunity to work together towards solving a specific problem. In addition, FFS groups perform dances, singing, drama all serving to relay to the public and to members important messages related to technology generation and dissemination. They serve to build group cohesion and identity.
4 INADES Formation (IFTZ)

Vision and Shared Values

IFTz views development as an empowerment process through which farmers build on their knowledge and experience through action-research initiatives.

IFTz envisions a socio-political situation whereby smallholder farmers (women and men) in Tanzania are organised and possess genuine power to:

- Control their natural resources and channels of distribution of their produce.
- Become a negotiation power capable of proposing a sound policy in order to influence and develop national policies concerning their own development.
- Understand and implement the concept of gender and development so as to reduce gender problems in their societies.
- Be recognised and respected as farmers.
- Take preventive measures to control the spread of HIV/AIDS in their societies.

Action-Research-Training (ART)

Action-Research-Training (ART) is the principal strategy. ART may be defined as:

A constant questioning about ourselves and what we individually or collectively do, at personal, community or institutional level. It enables all actors involved to act more and better, since it helps us to formulate new hypotheses; to check the latter through actions; and to formulate again new hypotheses, according to a cyclic and iterative process.

In this way ART becomes a permanent source of learning at all levels and in every sense; it enables all the interacting actors to enrich one another, and trigger social or political changes in the rural areas.

ART is founded on four basic principles:

- Full and effective participation of the people (farmers, groups, networks) as leading actors in conception, planning, monitoring and evaluation of the change process.
- Involving every actor, farmers and trainers in an interactive, egalitarian relationship that reinforces self-confidence and self-esteem, which farmers usually lack.
• The necessity to evaluate and learn lessons from any consensus reached, before questioning it. In this way, each actor develops his/her resources that teach him/her to learn.

• Permanent questioning of the solutions found through a reflection/action process. It involves constant questioning about ourselves and what we individually or collectively do, at personal, community and institutional levels.

Three components of ART:

**Research:** is founded on the observation that the process arises from hypotheses formulated by the actors. This is followed by actions planned for the implementation of these hypotheses, and the definition of accurate follow-up indicators for assessing the progress of the process.

**Action:** ART is built around the activities and actions of the people. After clarifying the hypotheses, the actors directly embark on implementation of actions so as to meet specific concerns. Such actions are taken as trials and are reflected upon by their actors, to assess whether they meet the immediate and real preoccupations of the actors concerned.

**Training:** occurs as actors learn from their actions. It takes place through re-reading the action and how it progresses. This is done through an evaluation comparing their results with the initial hypotheses. Successes, failures and deviations are noted, conclusions drawn (learning), and new hypotheses are formulated to be tried out, based on the learning acquired through action.

The cycle then repeats again but differently (i.e. iteratively) as visualised in Figure 1 below.

With the ARTing technique, capacity building occurs more through knowledge sharing and innovations rather than knowledge transfer. That is, true learning does not come from knowledge transfer but from reflecting on our own failures and achievements, with a view to building up new knowledge, know-how and behaviors.

These are the steps followed:

• Participatory Context Analysis marking the initial planning process: assessing environment, strengths and weaknesses, changes, trends, etc.
• Vision of IFTz and FOs: involves formulating hypotheses (on key issues and main challenges) in form of dreams and prospects for the future.

• POA of IFTz and FOs: involves developing an operational program specifying the strategies to be implemented and actions to be carried out, with a view to taking up the challenges and realising the vision. Also, this involves identification of other actors; planning of actions by FOs and support/back-up programme by IF (and other actors) etc.

• Implementation: i.e. experimentation of the planned actions.

• Self-monitoring and evaluation (PIM): questioning on results and impact, drawing lessons and findings, adjusting plans, developing new hypotheses and so on.

In this learning process emphasis is placed on building the capacities of FOs in analysing their situation and developing a collective plan of action.
The Role of Trainers in the learning Process

As facilitators of social change processes, trainers’ major role is to create a learning situation. Specific roles include:

**Go-Between:** facilitating effective exchange among farmers and helping farmers establish effective contacts with other categories of development actors. IFTz trainers have gained experience in this role. They will need to reinforce it.
Catalysts of innovations: in helping farmers develop their creative abilities and value their potentials. This role has been highlighted by the existing farmer-research groups in IK and PFI. It will be pursued in this POA.

Facilitators of change processes: in helping peasants discover and value their dormant potential; link separate problems through identification of key issues; analyse trends; decide why, what and how to do; and link their actions with motivating challenges.

Developers of human resource: In the past years, we have seen many farmers emerge as real experts. We have ‘used’ them as resource persons, for both fellow farmers and technicians. Thus, the first preoccupation of trainers will continue to be ‘What can I do to help this expertise emerge?’

Mirrors: in helping farmers, men and women, look at themselves and their situations from new standpoints which enlarge their understanding of how they live and enable them to better act and react. As one female farmer once put it

“I learn where I come from and where I want to go; this is the education we need”.

To successfully create a learning situation around each FO’s activity, trainers must prepare each support activity: methods, tools, instruments and techniques to be used in facilitating the learning process. In the choice of methods, trainers need to show proof of creativity and flexibility depending on the group to be supported and the content of the support.

All this means that, when working in a given village, trainers must pay more attention to the village past and present situation, to the relational analysis within the village and of villagers with projects, to the dynamics, the stakes, the assets, the potentialities, the constraints… of each category of actors.
5 PELUM-Tanzania

Farmer Empowerment

PELUM-Tz point of departure is that active participation of all farmers in all stages (i.e. need identification, planning, implementation, monitoring and evaluation) of a project and in other decision-making processes in regard to their community development, indicates the highest level of empowerment.

PELUM-Tz uses farmers’ participation levels in all aspects that touch their daily life as a measurement of empowerment in a farming community. In addition, the shifts of relationships between farmers’ organizations and other institutions also reflects elements of empowerment. For instance, PELUM-Tz has managed to facilitate self-formation of strong farmers groups and networks in Rukwa, Mbeya, Iringa, Morogoro and Dodoma. Networks such as MVIWAMBO, MUVIWAMBO and MTABIPEMA in Mbozi have formed an effective joint-secretariat which has shown a high level of organisation and leadership, and through this, have managed to establish good and favourable relationships with their local governments from village to district levels. Furthermore, they even found themselves better able to collaborate with other development organizations such as MVIWATA and INADES-FTz.

In other areas, farmers groups have formed societies. Some networks have set-up village banks e.g. CAVI at Mkoka, Dodoma. PELUM-Tz, in collaboration with UMADEP and MVIWATA, has facilitated the same establishment in Mgeta, Mkuyuni and Kinole in Morogoro. This has led to more recognition of farmer organizations by government and financial institutions e.g. CRDB.

Values such as commitment to farmers’ empowerment; voluntarism and efficiency; self-reliance and team work; gender sensitivity; creative and responsive to changes and challenges; participatory action-learning and self-criticism, are all central towards effective farmers’ empowerment.

6 HIMA: “Hifadhi ya Mazingira”

HIMA espoused a demand driven extension service following a general philosophy of HIMA project design which contends that 11 local communities gradually take on an increasing

7 Text in section is based on Mtoni and Bakewell-Stone 2002.
responsible for the sustainable utilization of the natural resources within their area”. HIMA’s sectoral strategy was to utilize participatory approaches at the village level to develop sustainable programs, while ensuring that farmers and other stakeholders are involved in many aspects of the project cycle.

Considerations for private extension service

- Services must be demand-driven and not supply driven.
- Services must result in incremental increase in production.
- Markets must be available.
- Inputs must be available and supported by credit.
- Strengthen the research-extension-farmer linkage.
- Ensure appropriate pricing policies are in place.
- Effective communication and transport systems.
- Large number of extension providers to create competition and provide choices for farmers.
- Privatization of extension must not imply a complete disengagement with government services.

Para-professionals

Support for and use of para-professionals was found to have a multiplier effect and farmers were very keen to learn from fellow farmers.

A new village committee, known as the village Mazingira committee, was created by HIMA, as the institutional set-up of demand-driven extension services. Through the Mazingira committee farmers would seek assistance from appropriate para-professionals.

Payment of para-professionals was made in-kind or cash and this was possible because technologies promoted were compatible with farmers’ farming systems and profitable. Para-professionals provided venues for demonstration and actual training sessions. A village fund paid for by HIMA was created in support for demand-driven services.
7 FAMESA: Experiences from a Regional Programme

Farm-level Applied Research Methods in Eastern and Southern Africa (FARMESA) was a regional collaborative initiative of Kenya, Uganda, Tanzania, Zambia and Zimbabwe with a regional co-ordinating unit in Zimbabwe. Countries of Malawi and Mozambique were incorporated in the final stages. It aimed at improving food security, incomes and resource management of farming families in the region.

Immediate objectives were

- to develop and utilize improved field methodologies and technologies;
- to gather, document and disseminate relevant field experiences;
- to improve in-service training and formal education on innovative field methods and
- to support Collaborating institutions that apply new methodologies and improved technologies.

Participatory On-Farm Research

Farmesa empowered farmers, extension workers, researchers and policy makers from both government and non-governmental organizations to innovate, analyze constraints and formulate and implement possible solutions. The focus was on testing the effectiveness of Participatory on Farm Research (POFR) as a method for developing, adapting and disseminating improved technologies on crops and livestock production. Farmer Group approach was applied in all field activities. In addition the program facilitated the organization of farmers into Farmer Field Schools in order to test improved technologies on maize and on integrated pest Management.

The following case studies are taken to illustrate some of the experiences gathered from program activities:

Farmer Field School approach in technology development for maize production in Kongwa and Kilosa districts

The Farmer Field School (FFS) training programme was conducted in Ihanda village from July 1999 until June 2001 within the Gairo/Mlali field site. The site was selected for the implementation of the FARMESA Project activities as a representative of low agricultural production potential areas in the country. The FFS was introduced in the site in order to address
the low adoption of crop and livestock technologies and enhance capacity building of the farming households by providing additional knowledge and management skills in a participatory manner. Initially, a total of 15 crop-livestock farmers participated in the FFS training programme. However, the number increased up to 31 farmers as more farmers were impressed and joined them. Before commencing the FFS, the research team developed teaching manuals based on the needs of the targeted farmers which emerged during a community meeting. Major topics that were suggested by farmers include land preparation using oxen, use of farmyard manure, row planting, ox weeding, seed selection and storage with reference to maize crop. All learning activities took place in the field plots during land preparation, planting and the growing cycle of the maize crop. All learning was based on the farmers’ observations in the field plots. Results from a comparative study showed that maize yields from FFS plots were higher than those from traditional practices. The combination of analytical methods, ecological insights and integrated management principles of growing a maize crop provided farmers with wider knowledge, thereby improving skills in production practices of the commodity.

**Farmer Field Schools for “IPM” on bean production in Mbeya district**

The Farmer Field School (FFS) approach was tested as a methodology in development, dissemination and utilization of improved technologies on bean production and pest control among small holder farmers in Isangati field site in Mbeya district. Two villages, Isuto and Mbawi, were selected for this purpose. The introduction of the FFS concept created enthusiasm among farmers and interested farmer groups with more than 20 members were formed. The farmer groups selected the treatments during a planning meeting and established experimental plots. The study showed that the FFS approach was participatory with a bottom up approach, emphasising collaboration between researchers, extensionists and farmers. Training and planning meetings encouraged farmers to build up a spirit of learning, records keeping and simple experimentation. The farmers group at Mbawi village decided to investigate the effect of fertilizers on bean production at various planting dates because they had never used fertilizers in crop production before. Monitoring and evaluation, as a core activity, empowered farmers in decision-making process. Farmers selected Uyole 96 at Isuto and Kabanima at Mbawi villages as the best bean varieties for further seed multiplication while mid and end of March were selected as best times for planting the beans at Isuto and Mbawi, respectively, based on the field
observations made during agro-ecosystem analysis. The diffusion rate of new technology information in a community where the FFS approach was used was noted to be high. However, participation of both female farmers and policy makers in FFS was noted to be low. Launching seminars and workshops on FFS to policy makers and initiating FFS for women’s groups could improve the situation. Use of the FFS approach in Tanzania and in other parts of the region is highly relevant and has high chances of being adopted in the region characterised by low ratio of extension staff to farmers, insufficient funds to support extension service, and lack of farmer participation in technology development and where most smallholder farmers live in rural areas where the use of mass media is limited.

The use of Farmer Groups and “PRA” methods for on-farm evaluations of improved coffee varieties in Mbeya district

Results of a PRA study showed that coffee was a priority one crop in Isangati, especially in Isuto and Iwiji wards. The low yields of the crop in the division could partly be attributed to diseases such as coffee berry disease and coffee leaf rust. The mainly smallholder farmers in the division considered use of the recommended fungicides for the control of the two diseases too costly. Use of coffee varieties that were resistant to the diseases was considered a more cost effective option that could lead to increased yields and hence income for both male and female farmers in the area.

Use of Farmer Groups (FG) for running the on-farm trials was considered a more appropriate method in order for the new technology to reach a wider audience in a short time.

A total of 239 male and 74 female farmers participated in the introductory phase of the project. A total of 184 farmers, of which 138 were male and 46 females formed FGs around 15 trial sites in 8 villages. Only two of the 15 groups were headed by females.

Nine varieties that were resistant to CBD and CLR were introduced in the area for on-farm verification. Preliminary assessment by the FGs showed that the two diseases did not attack the new varieties. As coffee was reported as a priority crop in the area as a source of income, it was felt that improvement in the yields obtained by the farmers would increase their incomes and in turn boost their food security. Since diseases were seen as contributing to the current low yields and the farmers were not able to afford the recommended fungicides for the control of the two diseases, introducing varieties that were not attacked by the diseases was an ideal solution. It
was anticipated that the reduction or complete stoppage in use of pesticides would lead to an unpolluted environment. This would benefit the population of both male and female farmers in the area, especially the youth and children who were likely to live longer.

To enhance FG activity more frequent and regular meetings between researchers, VEOs and the FRG members were planned. A calendar of research activities and training meetings was then prepared.

Shyness to contribute during meetings was noted among the FG members. This posed a serious obstacle to the dissemination of information on new technologies. The members of the FGs needed to be encouraged to present to others what they observed from the trials. This was done during subsequent planning meetings.

Experience of the first year of testing showed that the FGs method for technology development and transfer held some potential for success. For it to succeed, however, more frequent and regular contacts between researchers, VEOs and the FRG members were deemed necessary.

In virtually all FGs the female members were out-numbered by their male counterparts. Of the 15 FGs, female leaders headed only 2. The reasons for this imbalance were not immediately clear. This called for a gender analysis of coffee production for the villages in which this project operated. In addition to understanding the reasons for the gender imbalance, such a study could suggest ways for correcting the imbalance.

The problems cited by most FGs included death of some trees and infestation by green scales. The latter required some training as most farmers perceived it as a priority issue. Insecticides were recommended for the control of the pest.

8 The Southern Highlands Dairy Development Project (SHDDP)

From Dairy Development to Community Development

The Southern Highlands Dairy Development Project (SHDDP) is a co-funded project between the Governments of Switzerland and the United Republic of Tanzania. It has undergone a unique experience of working for about twenty years with dairy farmers with their organisations in Iringa and Mbeya regions. The project has realized various experiences during its course of operation from “Dairy Development to community Development.”
Before dairy farmer group line was in place, farmers were first encouraged to adopt dairy
techniques and technologies delivered by the project field staff. Both farmers and field staff also
experienced different problems and weaknesses including; Lack of transparency on financial
matters, lack of group by-laws, gender inequality, project staff were held full responsible in
decision over farmers, farmers and other stakeholders were not involved in project planning,
monitoring, assessment/evaluation etc. Formulation of a dairy farmer group strategy reorganised
the project’s mode of operation to involve more stakeholders and empowerment of the
farmers.

For some time, the project even sought the support of farmer motivators who provided
training and advisory services to their fellow farmers. Afterwards farmer organisations were
promoted in order to strengthen the results achieved at individual household level.

**Dairy Farmer organisations (DFOs)**

Subsequently, a number of Community Based Organisations (CBOs) so called Dairy
Farmer organisations (DFOs) came up in the project area. Within these CBOs some members
received special training to work as animal health workers, dairy technologists, bookkeepers,
group leaders, facilitators etc. Especially in the field of animal health, the project managed to
set up an entire cadre of Community Based Animal Health Workers (CBAHW) who can be seen
today as Para-professionals. Training support to farmers was basically provided on demand
driven and cost sharing policy as per farmers felt needs and commitments.

The linking and organising of dairy farmer groups into networks became a common
feature through which lobbying and advocacy meant a shortcut to influence directly their
particular expected favour or benefits. However, results from lobbying are not always
immediately visible and therefore not everybody is prepared to pay for lobbying activity leading
into difficulties to execute their objectives and to finance their activities. A positive point to be
mention is that many networks are open to new members to even those not supported by
SHDDP. Some networks somehow transform themselves from a pure Dairy farmer group
network into a farmers association.

**Self Assessment Facilitation (SAF) and Participatory Impact Monitoring (PIM)**

Farmers through their farmer organisations (Dairy farmer groups and Networks) were
capacitated in both technical and organisational knowledge and skills. Various participatory
approaches, methods, processes and tools thereof were employed such as; Participatory Technology development (PTD); Self Assessment Facilitation (SAF), Participatory Impact Monitoring (PIM), Farmer Exchange Visits etc..

Self Assessment Facilitation however, was realised to be the most appropriate methodology in organization and empowerment of the farmer organizations. This is a participatory technique and process of getting together group members to reflect critically on own project programme, project objectives and management of their group. Self-assessment facilitation is a member-centered approach expressing the values and experiential learning process. It is a facilitation process aiming towards project and/or organisational management cycle (i.e. Planning ---Implementation-- Monitoring---- Assessment---- etc…)  

Strengthening of DFGs and capacity building among members as taken up by the project aimed at both providing training on more technical topics as well as promoting group internal functioning and relations. SAF was developed as a methodology for groups to identify objectives and then in particular to formulate their needs and requirements to meet the objectives set. On the other hand, Participatory Impact Monitoring (PIM) was complementing SAF to enables a group to look at its progress and development.

From the above SHDDP very brief experiences it is apparent that participatory capacity building approaches enhances empowerment of smallholder farmers through farmers’ organisations towards poverty reduction.


The data used in this evaluation was obtained in Busia, Bungoma and Kakamega districts of western Kenya. 400 graduated FFS farmers were selected at random and individually interviewed using a short questionnaire. Both closed and open-ended questions were posed. In addition to the individual questionnaires, 200 FFS groups that had graduated were interviewed and only open-ended questions were used in the questionnaire. These explored issues of group and community level processes.

3.2.1.1 Status of FFS fund

Fig 3. The current status of FFS fund that began as a grant

Most of the FFSs still had some of the funds that began as a grant in their accounts.

Fig 3 shows that 52% of the FFSs interviewed had less than ksh.5000 in their accounts. About half of them had less than ksh.1000. We can also observe that 48% had more than ksh.5000 in the group accounts. One third had over ksh.15000 in the group accounts.

The main objective of the grant was to support FFS training activities. However most of the groups seem to have used part of the money to finance income generating farming activities. They have therefore continued to build up the balances in the accounts and to reinvest the income generated. Majority of those who have low balances indicated that they had invested the money in other income generating activities.
3.2.2.1 Economic status

68% of the FFS members felt their economic status to be average (Fig 8). 18% were below average and 14% above average.

3.2.2.2 Farmer perception

![Fig 8. Income distribution of FFS members.](image)

![Fig 9. Proportion of FFS graduates who feel that their profits have increased as a result of FFS participation.](image)

Source; Enyola Musa. 2004.

The study was carried out in relation to activities funded by the FAO TCP in Bondo District including Food Security Field School farmers, The sample from which data was collected consisted of:

- 10 Food Security Field Schools covering 40 farmers out of the 46 already initiated.
The information was collected through personal interview with various respondents or stakeholders. Participatory Monitoring and Evaluation Team drew up the information compilation instrument or checklist in consultation with the Consultant from ETC East Africa.

The instrument for information compilation was pre-tested using sub-samples of the various stakeholders participating in Food Security Programme.

<table>
<thead>
<tr>
<th>2. Number of Farmers training in FSFSs by Gender</th>
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</thead>
<tbody>
<tr>
<td>GENDER</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
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</tbody>
</table>

(b). Sources of getting funding for expanding FSFSs

<table>
<thead>
<tr>
<th>SOURCES</th>
<th>PERCENT</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members contribution</td>
<td>38%</td>
<td>15</td>
</tr>
<tr>
<td>Sales of farm produce</td>
<td>42%</td>
<td>17</td>
</tr>
<tr>
<td>Small scale business</td>
<td>20%</td>
<td>8</td>
</tr>
</tbody>
</table>

In most FSFSs, monthly contributions were featured as a major mechanism for sustaining FSFSs after graduations. This is to be invested in goat rearing, poultry farming and others.

<table>
<thead>
<tr>
<th>21 (a) Social change in life.</th>
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</thead>
<tbody>
<tr>
<td>Social change</td>
</tr>
<tr>
<td>Relationship</td>
</tr>
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<td>strengthened</td>
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<td>-------------------------</td>
</tr>
<tr>
<td>Group cohesion</td>
</tr>
<tr>
<td>Improved knowledge</td>
</tr>
<tr>
<td>Recognition</td>
</tr>
<tr>
<td>Freedom</td>
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</tbody>
</table>
21 (b) Economic change in Life

<table>
<thead>
<tr>
<th>Economic change</th>
<th>Percent</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant Income / Able to meet financial obligation</td>
<td>96.4%</td>
<td>27</td>
</tr>
<tr>
<td>Empowerment</td>
<td>3.6%</td>
<td>1</td>
</tr>
</tbody>
</table>

- There had been a general increase in food production over the years from 2001 – 2002. 60% of the population in FSFSs experienced an increase in food production due to their participation in Food Security Programme.
Annex 5. M&E database of KEN/99/200 “Promoting Farmer Innovation through Farmer Field Schools” project. FAO, Kenya

Source: Deborah Duveskog 2005.

The project started in 2001 in 7 districts in Kenya, and has implemented about 800 FFSs over 3 years. The data below are extracts from various monitoring data collected during the project.

Data below are from the FFSs that started in 2001 which were all extension-led FFSs.
Data below are from the FFSs started in 2002 of which about 80% were farmer-led FFSs.
The chart below is based on data comparing maize yields among FFS members before (season 1-4) and after FFS training (5-7) (Kitui district, n=145), and comparing the averages against district maize yield averages. Kitui district is located in Eastern Kenya and is classified as a semi-arid area with frequent crop failure due to lack of rainfall. The data tend to suggest that after FFS farmers obtain higher yields. Crop practices learned in these FFSs were mainly improved seed varieties (draught resistant etc) and improved soil fertility.

At the start of the FFSs in 2001 in Kitui district individual FFS members were asked to state their main income sources when given the following alternatives 1. employed family member, 2. selling of animals, 3. selling of farm produce, 4. casual labour, 5. business/shop, 6. other. In 2004 the same information was collected among 162 farmers from 12 FFS groups. The
data suggest that following the FFS activities the amount of farmers, who consider “selling of farm produce” to be a main income source for their households, has increased drastically.

Adoption rate among a sample of farmer groups. Each FFS group brainstormed about which practices they felt they had learnt about in the FFS and thereafter rated their own adoption of these practices according to “not yet”, “to some extent” and “yes, full adoption”.

The high adoption of agronomic practices, which include the elements of planting method, spacing, weeding practice and harvest practice has been explained by farmers to relate to the fact that these practices do not require any financial capital to adopt.