

**GOVERNMENT OF SOUTH SUDAN  
(GOSS)**

**MINISTRY OF AGRICULTURE AND FORESTRY (MAF)  
MINISTRY OF ANIMAL RESOURCES AND FISHERIES  
(MARF)**

# **National Agriculture and Livestock Extension Policy (NALEP)**

**Prepared by  
Agriculture and Livestock Extension Task Force**

**JUBA, February 2011**

Written by: Agriculture and Livestock Task Force.

Document published with the financial support of the European Commission and the technical assistance of FAO.

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Author, Purna Chhettri

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## Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
AIS	Agricultural Information System
AKIS	Agriculture Knowledge Information System
ALSF	Agriculture and Livestock Stakeholder Forum
CAD	County Agriculture Department
CAHW	Community Animal Health Worker
CBEW	Community based extension worker
CBO	Community Based Organization
CEW	Community Extension Worker
CTC	Yei Crop Training Centre
ERCC	Extension and Research Coordinating Committee
ESP	Extension Service Provider
FBO	Faith Based Organization
FFS	Farmer Field School
FTC	Farmer Training Centre
GDP	Gross Domestic Product
GO	Government Organizations
GOSS	Government of South Sudan
HIV	Human Immunodeficiency Virus
ICT	Information and Communication Technology
IDP	Internally Displaced People
KFTC	Kagulu Forestry Training Centre
Km <sup>2</sup>	Square kilometre
LFDP	Livestock and Fisheries Development Project
M&E	Monitoring and Evaluation
MDTF	Multi-Donor Trust Fund
MLTC	Marial Lou Livestock Training Centre
NALEP	National Agriculture and Livestock Extension Policy
NATTC	Nzara Agriculture Technology Training Centre
NGO	Non-Governmental Organization
NPA	Norwegian People's Aid
NSA	Non State Actor
PFTC	Padak Fisheries Training Centre
PIT	Payam Implementation Team
SAFDP	Support to Agriculture and Forestry Development Programme
SMS	Subject Matter Specialist
SPCRP	Sudan Productive Capacity Recovery Programme
SSRRC	South Sudan Relief and Rehabilitation Commission
TNA	Training Needs Assessment
YATC	Yei Agriculture Training Centre

## Acknowledgement

This policy document and its implementation framework is an outcome of a collaborative work carried out by a Task Force.

First and foremost, the Task Force wishes to acknowledge the source of funding that enabled this work to be accomplished. In particular, we would like to acknowledge the financial support received from the European Commission (EC) and World Bank (WB) for the finalization of the National Agriculture and Livestock Extension Policy. The Task Force is also grateful to FAO for the technical assistance provided through Ms. Michelle Glenn, who compiled inputs from States' consultative workshops and Mr. John Preissing who critically revised the policy document and made significant recommendations. Equally important, we are indebted to the members of the larger working group and the senior officials in the Ministry of Agriculture and Forestry (MAF) and Ministry of Animal Resources and Fisheries (MARF), for having read through the draft policy document and made invaluable comments, contributions and recommendations. Our sincere thanks go to Messrs Francis Luaala and Simon Baka who helped in facilitating the consultative workshops at the States level.

The Taskforce would also like to thank all persons who assisted in the realization of the undertaking. Over 300 people were consulted in the course of this policy formulation process through workshops in the ten states of South Sudan and meetings with members of the technical committees in the MAF and MARF. We thank them for sharing their time, experiences, and insights so generously with us. We would also like to thank the Undersecretaries of the two ministries and acknowledge the efforts made by Dr Loro George Leju, Dr John Kanisio and Mr John Choul in initiating the process which formed the basis for our work.

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## Foreword

The Government of South Sudan is committed to the development of agriculture, forestry, livestock and fisheries subsectors in order to attain food security for growing population, provide income and employment for rural population, and protect the environment. The development of these sectors remain important for poverty reduction since most of the vulnerable groups like pastoralists and subsistence farmers depend on them for their livelihood. Growth in these sectors is therefore expected to have a greater impact on the larger section of the population than any other sector. Rural advisory and extension services is expected to play a very important role in development of the agricultural sector in modernizing and transforming agricultural production from subsistence small holder to business and profit-oriented farming and livestock enterprise. For this to happen, appropriate extension policy is necessary.

The National Agriculture and Livestock Extension Policy (NALEP) and its implementation frame work were formulated by the two Agriculture and Animal Resource sector Ministries (MAF and MARF) with technical assistances from FAO, EC and the WB. Stakeholders, experts, professionals, NGOs, and private sector participated in the process.

NALEP gives directions for the management and organisation of a pluralistic extension system with both public and private extension service providers. The policy offers guidance for service providers and other stakeholders on matters of standards, approaches, implementation mechanisms, and on how to strengthen coordination among all actors. In order to strengthen the provision of extension services, the policy needs to be fast tracked to stimulate Agriculture, Forestry, Livestock and Fisheries development in South Sudan. We believe agricultural and livestock extension is one of the few priority areas where government should make a strong commitment to provide the necessary financial, political and administrative support. By accepting this document, the two sector GOSS ministries (MAF and MARF) are committed to take the lead to implement NALEP in collaboration with development partners including national and international stakeholders.

## Executive Summary

South Sudan is going through rapid transformation. Since the installation of Comprehensive Peace Agreement (CPA) and the semi autonomous Government in 2005, South Sudan has been committed to meeting the dreams and aspiration of its people. As more than 90 percent of the people depend on agriculture and livestock for their livelihood, the provision of efficient, effective and participatory extension services is seen as key in achieving these national goals. To strengthen extension services provision, the Ministry of Agriculture and Forestry (MAF) and Ministry of Animal Resources and Fisheries (MARF) have developed National Agriculture and Livestock Extension Policy Directives, to guide the development of extension services to its people.

In recognizing the role that the private sector can play in extension provision and the need to make extension services responsible and accountable to client needs, the new policy have features that: 1) calls for the adoption of pluralistic and participatory extension services; 2) encourages the privatization of extension services; 3) ensures that research priorities and extension messages meet farmer needs; 4) focuses on developing human resources to commensurate with emerging needs; 5) promotes the use of multiple approaches to meet diversified client needs and agro-ecological zones; 6) promotes empowerment of clientele and service providers; 7) seeks to assure that extension facilitating factors vital to motivate extension service providers (ESPs) are considered in agriculture development activities; 8) address the financing of extension services; and 9) provides a focus on cross cutting issues such as HIV/AIDS, gender and environment affecting agricultural development.

The National Agriculture and Livestock Policy has been developed through a participatory process which was led by the Directors of Departments of Extension from MAF and MARF supported by the Food and Agriculture Organization of the United Nations' Sudan Productive Capacity Recovery Programme and the Support to Agriculture and Forestry Programme, supported by the Multi-Donor Trust Fund. The new policy indeed builds on the past work done by the two ministries. The Task Force reviewed and improved the policy directives based on emerging needs and gap analysis, supported by state level sharing and validation workshops where key stakeholders from the government, non-governmental organizations (NGOs), private sector and farmer unions/associations were invited to contribute. Indeed the process and the product can be considered home grown.

The National Agriculture and Livestock Policy Directives are also accompanied by broad implementation guidelines, developed through a consultative process through

State level consultative workshops. The challenge ahead will be to develop State level extension implementation strategies.

The Government of South Sudan, with the support of key partners, will now endeavour to operationalize the policy through the development of detailed implementation framework along with budgets, time frame and monitoring indicators designed to meet the demands of individual states.



# SECTION I POLICY





# 1 Introduction and background

## 1.1 Role of Agricultural Sector in South Sudan

The agricultural potential of South Sudan is generally high. Soil and climatic conditions allow for a wide variety of food, cash crop and animal production. The sector has the potential to feed the country's growing population, provide raw material to the domestic agro-industries and greater support to the growth and development of the national economy. However, agriculture and livestock production is subsistence and almost entirely rain-fed with low outputs. Cultivated areas have historically ranged between a minimum of one percent and a maximum of two percent of the total area (from 0.65 to 1.3 million ha in 640 000 km<sup>2</sup>), while non-wood natural products such as honey, medicinal plants, wild foods and spices have helped to enhance food security. For decades, farmers and land users have worked in isolation relying solely on indigenous knowledge and they have not had access to modern production technologies and markets.

Livestock raised largely in pastoral systems on subsistence basis represents a significant proportion of agricultural sector activity, with an estimated population of 10 million heads of cattle besides 20 million heads of sheep and goats and undetermined numbers of other livestock. Estimates for the fisheries production potential along the River Nile range between 100 000 to 300 000 tons per year on a sustainable basis

Considerable water resources also exist that would allow for profitable irrigated agriculture in significant areas of the country. Horticultural and fruit cash crops could be profitably grown if the additional investments required in infrastructure and market development were made. In addition, South Sudan's forest resources have the potential to serve as the basis for developing significant economic activities in terms of wood and non-wood products.

In spite of development efforts during the past decades, agriculture and livestock sectors have remained predominantly traditional due to inadequate investment and poor technology transfer and hence operating under relatively inefficient farming systems with the greater part of its production and marketing potentials still untapped.

Around 90 percent of the population depends on subsistence agriculture and livestock production of which 80 - 90 percent generates less than USD1 per day. A large number of people in the country depend on emergency relief food from external sources.

Contribution of agricultural sector to Gross Domestic Product and export earnings in South Sudan still remains marginal.

*Key factors contributing to poor performance of the Agriculture and Livestock Sectors in the South Sudan include:*

1. Low productivity and production of crops and pastures.
2. Low livestock productivity and production due to diseases.
3. Heavy reliance on rainfed agriculture.
4. Deforestation and environmental degradation.
5. Insecurity in pastoral areas due to internal conflicts and interethnic clashes, cattle rustling etc.
6. Lack of a land policy.
7. Conflict between pastoralists and farmers over land use.
8. War syndrome, people reluctant to work in agriculture and livestock sectors after the Comprehensive Peace Agreement (CPA).
9. Market failures.
10. Lack of easy access to areas with high potential for agriculture and livestock production.
11. Inadequate involvement of private sector in agriculture and livestock development.
12. Poor coordination among stakeholders at GOSS, State and County levels.
13. Rural agricultural finance institutions not functioning well.
14. Poor management in key institutions supporting agriculture and livestock.
15. Lack of appropriate and relevant technical recommendations for the six agro-ecological zones.
16. Inadequate investment, poor technology transfer and lack of research based information.

## **1.2 Evolution of Extension Services in South Sudan and Lessons Learnt**

### **1.2.1 General overview**

In South Sudan, agricultural extension was introduced in 1928 during the British rule. It was initially pursued through building of roads to encourage cluster communal settlement along the roads for colonial masters to easily deliver goods and services to the rural populace and for them, in turn to receive the cheap labour and poll tax from the people. Sleeping sickness and other endemic diseases had adverse effects on the health and the socio-economic status of the population. Extension agents used to disseminate protection and prevention messages in an attempt to curb the diseases.

On the agricultural front, extension work focused mostly on the increased production of cotton which was the backbone of the Sudanese economy dubbed “The White Gold” of Sudan. Extension messages were later extrapolated to livestock production, coffee and fruit trees. Choice of crops to receive extension priority was largely influenced by



their economic values, climate and soil types. The approach to extension services in South Sudan from 1954-1972 was top down. The Government did the planning and the plan trickled down to the communities for implementation. It was primarily centred on government owned projects and plantations. Extension was largely crop based with inadequate attention paid to livestock and fisheries. Individual farmers and cattle owners received little attention.

However, from 1959 to 1964, the Government piloted the American model of 4-H clubs in Equatoria where crop demonstration plots were established, run by organized groups of youth and students in gender balanced groups. The model picked up well with plots serving to demonstrate improved varieties of seeds and crop husbandry practices resulting in increased yields. Communities started to emulate the practices. Besides surplus production, the American Extension Model had a ripple effect of beefing up group farming with the concomitant positive results. Unfortunately, the efforts were frustrated by the first civil war that raged on from 1963 to 1972. The State of insecurity destabilized the communities denying them the opportunity to tend to their crops.

For the period 1972-82, a district-wide extension strategy was implemented by the Regional Ministry of Agriculture, Livestock and Natural Resources in collaboration with the Project Development Unit. Activities largely concentrated around small agricultural projects such as coffee estates, tea plantations, vegetable farms and citrus nurseries. Since 1974 an effective extension programme was implemented where extension workers provided farmers with general advice on basic food crops, supervising contract growing of sorghum and groundnuts, assisting in the distribution of agricultural inputs and participating in regular multidisciplinary extension meetings with staff from other organizations carrying out different activities apart from agriculture and livestock such as health, water and sanitation and education.

The Ministry of Agriculture and Forestry was also involved in the maintenance of many nurseries for the production of fruit trees, coffee and pineapple. Other achievements included the setting up of State irrigation schemes, (Aweil Rice Scheme), model demonstration farms such as the MAFAO for dairy and poultry production and training centres that provided short courses for extension workers. Farmers' training courses, ranging from one to two weeks were also undertaken. Training of extension staff was done through basic induction training of four months duration followed by a three months in-service training. Agricultural research took place mainly at the government-run Agricultural Training Centres in Yei, Rumbek and Yambio.

Constraints faced by extension historically included: poor coordination between agencies involved in extension, low clientele participation, heavy reliance on donor funding, promotion of inappropriate technical packages, poor capacity to develop site-specific solutions and failure to supply inputs on time.

With the intensification of the war in the late 1980s, agriculture and livestock development was disrupted, infrastructure including research stations and training institutions were destroyed and many of the farmers were either displaced or became refugees in the neighbouring countries. Development programmes were replaced by relief operations and the public extension services basically fell apart.

During the time of war, extension services were delivered mainly by international NGOs to supplement their emergency seeds and tools interventions. In areas where there has been relative stability, new crop varieties sourced from neighbouring counties were introduced through trials and multiplications, a number of Farmer Training Centres (FTCs) established, appropriate technologies such as ox plough introduced, Community Based Animal Health Systems established; and a few agriculture training centres made operational to train community extension workers and Community Animal Health Workers (CAHWs).

The ministries' capacity to deliver services to the farming communities were drastically reduced as most of the qualified staff had either left the country or joined international organizations. Lack of funds for operational costs further reduced the capacity of these institutions to effectively respond to the growing needs of the rural population. Professionals still working with the Government had limited access to training and updating of their existing knowledge for over 20 years. Thus, they had to function through approaches, systems and methodologies that have long been out-dated.

### **1.2.2 Agriculture and livestock extension approaches used in South Sudan**

*The following briefly describes various extension approaches that have been used in South Sudan.*

#### ***The group development area approach***

This approach was used throughout the 1970s and 1980s, involving working with a large number of groups. It allowed extension services to penetrate difficult areas to introduce technology, as well as other development initiatives closely related to agriculture and livestock.

The constraints to this approach included the following:

- it was difficult to direct services to the needy;
- a heavy reliance on government and donors;
- the approach assumed that all farmers faced similar problems and operated in a homogenous environment.

### ***The Training and Visit system***

This approach was intended to increase the effectiveness of agriculture and livestock extension services through training, delivery and administrative systems. Proven agriculture and livestock practices from international and national research centres were translated into packages to be passed from Subject Matter Specialists (SMS) to agriculture and livestock extension officers who, adapted recommendations to their specific areas before passing them to village level extension workers, who then passed it on to the contact farmer and group of farmers. The system tended to be supply driven and in countries where it is still in use it has been modified towards a more demand-driven approach.

### ***The conventional system***

This is the ordinary top-down extension approach where the extension worker, being the only knowledgeable person, carried out extension teaching and training by transferring what he/she learned from his/her training. The farmers were seen as passive recipients who had no contributions in the discussions. Packages of innovations were predetermined and the beneficiaries had no alternative choices. This system, used since 1974, made the beneficiaries completely dependent on the government or organization that carry out extension services.

### ***Commodity-focused approach***

This approach used between 1950s and 1970s was based on promotion of single cash crops, for example coffee, tea and cotton and the input necessary for a timely harvest.

### ***Farmer Books***

Use of small booklets describing farm management actions related to particular enterprises, for example tomatoes and potatoes, had been recognized as useful sources of information for extension. This way, individuals and groups could access information locally and at their convenience. However, the topics covered through such publications were narrow and did not meet farmer needs.

### ***Community Animal Health Worker (CAHW)/Community Based Extension Worker (CBEW)***

During the war and under the coordination of emergency programmes, the protection of livestock was considered fundamental. Mass vaccination campaigns during this emergency period required the training of hundreds of CAHWs who ran a successful Rinderpest eradication campaign and later continued providing services to livestock keepers. The CAHW model has been the longest on-going and arguably the most effective livestock extension activity in South Sudan and in most pastoral areas of Africa. Public funding of CAHWs has now stopped and there is need to find strategies for sustaining the system and possibly expanding CAHWs' activities as service providers.

Using the Community Extension Worker model for crop based agriculture is also facing challenges in charging a fee for advice unless dealing with a highly commercialized system. There are positive experiences from engaging agricultural input suppliers as community facilitators indicating the importance of including entrepreneurship skills in training of CAHWs. Some marketable skills include, training of oxen for ploughing, tools repair, fruit tree grafting techniques, bee hive management, honey harvesting, construction of water harvesting structures, market information systems, hay making, irrigation system installation etc.

### **1.3 Current Agriculture and Livestock Extension System – Status and Challenges**

#### **1.3.1 Extension Services Provision and Organization**

Extension is delivered through public extension (run by the government), and through services provided by civil society and NGOs. A private sector extension system has not yet taken off the ground.

The Government lack capacity to provide effective and proficient extension services. This is due mainly to the shortage of well qualified and trained extension staff at the *State* and *County* levels and hardly any at the *Payam* and *Boma* levels. In addition, the few agents available have a wide range of tasks to accomplish (distributing inputs, settling local disputes between farmers and serving as a local government agricultural representative). Professionals lack training and experience in the broader area to be covered by extension including agribusiness, marketing and how to mainstream cross-cutting issues in their work programme.

Most extension agents operate in remote areas where they lack transport, receive low salary, have inadequate technical back up and moral support, receive minimal in-service training and perceive limited potential for career advancement.

In most cases, extension activities are implemented by agencies operating relief programmes and extension packages are often limited to the provision of farm inputs with practical instructions for their use. Many Extension Service Providers (ESPs) lack adequately trained personnel and extension working tools thereby affecting the quality of the services. While current extension efforts aim at assisting farmers to increase agriculture and livestock production they have failed to take into the equation the socio-economic circumstances within which farmers have to operate.

While agriculture and livestock programmes in South Sudan continue to operate under emergency and relief models, there have been conscious efforts to implement programmes based on development. The major development programmes with

agriculture and livestock extension components that are currently being launched are: 1) the Sudan Productive Capacity Programme (SPCRP); 2) the Support to Agriculture and Forestry Development Project (SAFDP); and 3) Livestock and Fisheries Development Project (LFDP) both through Multi-Donor Trust Fund (MDTF). SPCR, a joint venture between the Government of Sudan and the European Commission, is being implemented by the United Nations Food and Agriculture Organization in the five Western States namely: Northern Bahr El Ghazal, Western Bahr El Ghazal, Warrap, Lakes and Western Equatoria. SAFDP/MDTF implemented by MAF and the lead agency Norwegian People's Aid (NPA) operates in Central Equatoria, Eastern Equatoria, Jonglei, Unity and Upper Nile States. LFDP/MDTF implemented by MARF has established livestock and fisheries extension units in the five Eastern States. As these programmes have capitalized on building institutional and human resources capacity to provide agriculture and livestock advisory services the need to finalize and make available agriculture and livestock extension policies are both vital and urgent.

Major challenges facing effective and efficient delivery of extension services include:

1. Unavailability of competent, motivated and well facilitated extension staff particularly at the County, Payam and Boma levels). As a result, current extension services tend to end at the State level thus not reaching the producers.
2. Inadequate support to agriculture and livestock education and training such as agricultural vocational schools, school farms at the secondary schools, and agricultural institutes, has resulted in a lack of extension workers and mid-level technicians who are needed more at the grassroots level.
3. Inadequate mechanism/instruments in place for quality (Monitoring & Evaluation) control of ESPs and also a lack of measurement criteria.
4. Ineffective coordination and linkages between private and public sector service providers.
5. Inadequate stakeholder **participation** in planning and implementation of agricultural and livestock extension services including weak inter-sectoral and ministerial coordination.
6. Lack of clarity on privatization. How to engage non State actors both profit and not for profit organizations in extension.
7. Need to create linkages with other ministries (to support work on facilitating factors and cross-cutting issues).
8. Change needed in the vision of extension delivery to move away from a high labour force with many levels of offices and administration to a delivery system focused on measuring impact of extension when utilizing new and multiple delivery mechanisms such as contracting with private sector, development of Information and Communication Technologies (ICTs), and farmer led extension.
9. Need to link more strongly with Research and Agriculture and Livestock Education to ensure a holistic AKIS approach to extension services delivery.

10. Since a majority of the agricultural work done is by women, a stronger focus on delivery mechanisms to address the needs of women farmers is needed. There is need for more female extension agents but also programmes and messages specifically tailored for the needs of women farmers.
11. Lack of clarity on **decentralization** and aspects, components or outcomes to be covered by GOSS, States and Counties in the context of **pluralistic** extension system.
12. Need to strengthen the role of government to source funds, develop appropriate extension messages, provide monitoring and evaluation, as well as a coordinating role of all stakeholders.

### **1.3.2 Extension Approaches and Methods**

Current agriculture and livestock extension services are production oriented with little attention paid to value addition for the farmers such as processing, packaging, and marketing components. Farmer empowerment and their inclusion in planning and implementing agricultural innovations need to be strengthened not only in extension but the entire AKIS system. There is limited participation of specific target groups such as women farmers, women heads of households, youth, ex-combatants, and elder heads of households in extension due to approaches that do not give special consideration to them.

Use of efficient extension methods such as e-extension, field days, demonstrations and radio programmes are still very limited to almost nonexistent. There is lack of support to CAHWs despite the positive past experience of this powerful approach in reaching livestock keepers. Farmer Field School (FFS) is now introduced as a promising participatory approach to be implemented and adapted to suit local conditions in South Sudan, but other participatory approaches such as farmer led extension, and farming villages, should also be tested.

Major challenges in extension approaches and methods:

1. How to develop simplified and common extension approaches suitable to the wide range of farming systems, cultural and geographical diversity and generally the complex situation as a result of the war and the long period of insecurity.
2. It is particularly difficult to cover the vast areas with scattered villages often with weak road networks and lack of efficient transportation system.

### **1.3.3 Content and choice of extension messages**

South Sudan is recovering from a 20-year long conflict, thus it is important to plan and implement high impact quick return activities to boost the morale and confidence of the people. Examples of such extension packages include improvement of existing grain production and simple commercial enterprise such as vegetable production, egg



production and promotion of technologies with clear messages. Due to the low level of recent research and extension technology packages, priority will be given to technologies that have already been tested and proven in South Sudan and other countries in the region.

Extension should aim at promoting low-cost and efficient production systems with minimal dependency on external resources. As agricultural land in most of South Sudan is fertile, use of chemical fertilizers and pesticides is not common, but as intensified farming picks up, extension packages must now also include advice on application of fertilizers and safe use of pesticides, as well as conservation farming practices. However, it is desirable to promote production approaches that do not depend on high cost inputs from outside of the country.

Major challenges in contents and choice of extension messages:

1. Lack of technical recommendations representing different agro-ecological zones.
2. Lack of recommendations for reduction of post harvest losses.
3. Lack of recommendations for prevention of animal diseases.
4. Lack of well defined, appropriate, user-friendly extension packages.
5. Lack of clearing house for agriculture and livestock knowledge.
6. Lack of skills in current advances in extension messages.
7. Lack of skills in converting technical information into the appropriate extension dissemination package.

#### **1.3.4 Clientele empowerment**

Extension is expected to play a major role in empowering clients to assist them realizing the need to get out of the common dependency syndrome precipitated by the war and subsequent relief efforts and for them to understand and adopt promoted technologies. The fact that relief efforts are temporary and should be followed by development activities for long-term sustainability should be made clear. This means that emergency and relief only precedes transformation and development programmes and therefore are to be seen as a deliberate effort to kick start development.

Farmer empowerment includes equipping them with knowledge and skills, improved access to information on technology and services and with physical and financial resources for them to be able to develop their enterprises and build their local institutions based on their needs and priorities.

Major challenges facing clientele empowerment:

1. Access to information networks and linkage to markets.
2. Resource mobilization and access to rural finance.

3. How to provide guidance on local institution building (producer groups, Boma development committees etc.).
4. Addressing the needs of specific producer groups such as youth, women farmers, ex-combatants and older farmers.

### ***1.3.5 Stakeholder coordination***

There is an apparent lack of collaboration among service providers. As a result, there have been duplication and implementation of approaches that conflict with one another. For example, the presence of both relief operations and development programmes in the same locations has created confusion besides sending conflicting messages.

Major challenges facing stakeholder coordination:

1. To establish mechanisms to streamline and improve collaboration and networking among stakeholders.
2. To harmonize their planning that is supported and guided by a central governmental body.

### ***1.3.6 Human Resource Development of extension service providers***

The prolonged war has destroyed agriculture and livestock educational institutions which had been the main source of developing human resources for extension service delivery in South Sudan. Efforts have been made to revive some institutions and establish new ones in the last decade. Today, there are six training institutions providing services to the agricultural sector. They are: 1) Yei Crop Training Centre (CTC); 2) Yei Agriculture Training Centre (YATC); 3) Kagulu Forestry Training Centre (KFTC); 4) Padak Fisheries Training Centre (PFTC); 5) Marial Lou Livestock Training Centre (MLTC); and 6) Nzara Agriculture Technology Training Centre (NATTC). These training centres are expected to provide specialized training to farmers and extension staff, as well as providing sites for demonstration of improved technologies. An assessment of these centres' capacity needs will be useful for future human resource development efforts.

Major challenges faced in institutional and human resource development of ESPs in South Sudan are many. In general they include:

1. Inadequate institutional capacity (financial, human resources and logistical).
2. Lack of well trained frontline extension workers (public and private) to cover the entire country - small number of extension workers as compared to number of clientele to be served makes the farmer to extension worker ratio too high.
3. The training of extension workers is largely dependent on NGO support.



4. Gender imbalance in the extension staffing at all levels. This is perhaps due to the lack of qualified females to apply for extension jobs.
5. Lack of trained subject matter specialists in the field.
6. The need for adjustment of curricula in agriculture and livestock training institutions is another challenge to ensure that training provides professional know-how and skills relevant to the present context.

### **1.3.7 Technology Development and Packaging**

The lack of fully functional research centres have impeded the development of recommendations and preparation of technical packages that can be well understood by the client. Funding constraints have limited the function of research centres such as those in Halima, Yei and Palataka to testing crop varieties only.

Major challenges facing technology development and packaging:

1. Absence of functional research institutions.
2. Poor farmer and extension linkages with research institutions & universities leading to under or non development of technologies appropriate for South Sudan context.
3. Inadequate attention paid to on-farm participatory adaptive research.
4. Under-funding of research institutions.
5. Lack of competitive grants for service delivery.

### **1.3.8 Extension facilitating factors**

For clients to be able to adopt new technologies and production systems promoted by ESPs, in many instances additional support services are needed. There must be deliberate efforts in providing such strategic services which are referred to as extension facilitating factors which include:

- i) Infrastructure to enable ESPs to reach farmers and for farmers to reach the market to buy inputs and to sell their produce.
- ii) Reliable supply systems.
- iii) Rural finance and farm credit facilities.
- iv) Irrigation infrastructure.
- v) Access to services for value addition and to domestic, regional and international markets.
- vi) Social services and enabling legal institutional framework e.g. Payam Development Committees to coordinate inter-sectoral planning.

Major challenges facing extension facilitating factors:

1. Unclear policy on subsidy for farm inputs and farm outputs.

2. Limitation of marketing opportunities of agricultural and livestock products for local and export market due to inadequate market research, lack of market infrastructure, insufficient flow of market information and high marketing cost.
3. Inadequate farm input supply/marketing system to produce and distribute quality seed/seedlings, adequate amount of chemical fertilizers, pesticides, animal drugs and farm machinery.
4. The absence of a viable and sustainable farm input quality control and certification mechanisms.
5. Limited investment in irrigation, commercial farming, input supply/marketing and agro-industrial activities by the private sector and the farming communities.
6. Lack of or weak farmers' organizations.
7. Lack of farmer access to credit and farm business planning.

### ***1.3.9 Financing of extension services***

At the initial stage there is need for substantial funding for building both institutional and human capacity, as well as for running the operations of agriculture and livestock extension programmes. Funding by government and development partners should be geared at the establishment of a pluralistic extension system with service provision from public institutions and the private sector.

For long-term sustainability of the extension services, there is need to encourage private sector service providers to take on a large share of service provision. This could initially be done through contracting them to implement extension programmes and later, when commercial farming is in place, they should take over the extension service for commodity enterprises on a commercial basis.

Major challenges facing financing of extension services:

1. Lack of funds for institutional and human resource capacity building for ESPs (public and private)
2. Lack of sufficient operational funds for extension services
3. Extension not prioritized in budgets at all levels
4. Lack of mechanisms to support the establishment of private service providers' capacity

### ***1.3.10 Mainstreaming crosscutting issues in agriculture and livestock extension***

The war has destabilized communities and there are a wide range of issues that severely affect the clients' situation which need to be addressed for them to be able improve their agriculture and livestock operations.

Major challenges facing mainstreaming cross cutting issues:

1. Extension policy that will respond to cross-cutting issues such as environment, gender, equity and client empowerment as they relate to sustainable agriculture and livestock production.
2. Inadequate private sector development and lack of youth employment generation schemes.
3. Lack of HIV/AIDS and gender mainstreaming in extension programmes.
4. Reduced forest cover through deforestation, the lack of livelihood alternatives for forest communities and the lack of alternatives for wood use for fuel and timber purposes.

## **2 AGRICULTURE AND LIVESTOCK EXTENSION POLICY OBJECTIVES**

### **2.1 The Need for Agriculture and Livestock Extension Policy**

Massive efforts are needed to revitalize the agriculture and livestock sectors due to the long protracted war which has destabilized food production systems. Most States are having food deficit with populations relying on food donations. The complexity of the post war conflict situation and capacity of extension to manage this transition calls for an extension system that is coherent and well coordinated. In this context, the role of agriculture and livestock extension will be vital to facilitate the process of transitioning from relief and emergency to development, and subsistence to food security and even surplus farming. However, in the absence of an approved and clear extension policy, the task of developing extension strategies and implementation framework/guidelines becomes difficult.

The policy directives in this document draw upon the challenges addressed in the preceding sections, builds on the lessons from the past experience in South Sudan and the region, particularly, East Africa and inputs from key stakeholders active in agriculture and livestock subsectors in South Sudan. It takes a sector-wide approach to avoid confusing the client (farmer/livestock keeper/fisher folk) setting out modalities for joint planning and collaboration between service providers for efficient use of resources and avoidance of duplication of efforts.

The policy provides guidance to key stakeholders on how to support extension service delivery and the establishment of required institutional framework. It will form the basis for agreements on programme support to agriculture and livestock extension by development partners.

However, it is the capture and dissemination of research information that is essential to the success of any agriculture and livestock extension system. Development of systems for data collection and dissemination are an integral component of improving agricultural systems. All aspects of the agriculture and livestock extension/education/research development approach are vital in building the linkages and monitoring methodologies vital for the agriculture and livestock improvements to reach the farming community in a systematic and measureable way.

## 2.2 National and Sectoral Strategies Guiding Extension Services Policy

### 2.2.1 Agricultural sector policies

MAF and MARF share the vision of achieving food security and improved quality of life and prosperity among the population through transformation of agriculture and livestock production from traditional subsistence system to market oriented production systems.

Strategic objectives:

- Priority policies that quickly boost agricultural production.
- Make available agricultural inputs, including a credit facility, at affordable cost.
- Rehabilitate and expand rural infrastructure including feeder roads, and markets.
- Develop and provide research and extension services and market linkages.
- Develop and strengthen institutional and human resource capacity.
- Protect, regenerate and conserve natural resources, formulate policy incentives for rational and sustainable management and utilization.

### 2.2.2 Government of South Sudan Growth Strategy 2010 – 2012

**Smallholder agriculture, livestock and fishing** has been identified as the primary driver of broad-based economic growth. As most people in the country are engaged in these sectors, focus on agriculture and livestock forms the natural starting point for economic growth that will be supported through agriculture and livestock extension and research for strengthening the agriculture and livestock value chain and food security in the country. It is also recognized that women provide a significant workforce to agriculture and livestock. The role of young people and the elderly is also recognized.

The strategy acknowledges that unless farmers, pastoralists and fisher folk are able to market their produce, they will have little incentive to invest in or adopt new technologies to increase their production. Additionally, unless the ex-combatants can observe that agriculture and livestock can provide a desired standard of living, they may not be willing to shift to peace and the development of their nation. An added component of increasing profits and improving food security is the prolonging of shelf life of crops through processing and packaging. This contributes significantly to food availability and food security in the lean season and creates an agricultural system that will support more jobs and revenue streams.

The four challenges recognized by the Government that could contribute to a reduced pace of agriculture and livestock development include:

1. *Insecurity* – People are unwilling to invest in planting something for the future if they are unsure about their safety, or if they may have to move. Insecurity also disrupts access to markets.



2. *Transport Costs* – People have no reason to try and produce a surplus for the market if they have no affordable means of transporting it there.
3. *Multiple Taxation* – Even people who can access a market by road will not try to do so if all of their produce is taxed on the way at official and unofficial checkpoints.
4. *Attitudes* – Most people view agriculture and livestock as drudgery and not an attractive lifestyle when there could be opportunities for significant improvements in livelihoods with improvements in the agriculture and livestock sector.



### **3 POLICY ON AGRICULTURE AND LIVESTOCK EXTENSION SERVICES**

The objectives of MAF and MARF and the Government of South Sudan Growth Strategy 2010-2011, spelling out the importance of agriculture and livestock research and extension for strengthening the agriculture and livestock value chain and food security in the country are guiding the policy direction of NALEP.

#### **3.1 Vision of NALEP**

The vision is that clients should have access to demand-driven, decentralized pluralistic and farmer led extension system.

#### **3.2 NALEP Mission**

To transform agriculture and livestock from traditional/subsistence systems to achieve food security, wealth creation and national economic growth through science based, market-oriented, competitive and profitable agricultural systems.

#### **3.3 NALEP Objective**

The objective of the extension policy is to guide the establishment and implementation of a pluralistic extension system which will be instrumental in achieving national agricultural and livestock goals, efficiently contribute to the national economy and reduction of poverty, through developing and improving the efficiency of sustainable agriculture, livestock, water, forestry and rangeland resource subsector activities, based on sound environmental practices.

This objective will be achieved through:

- The empowerment of farmers to adequately respond to food security issues and the growing demands of domestic and international markets for crop, livestock and forest products through the transfer of adapted research technologies.
- Organizing farmers in viable rural organizations.
- Provision of institutional credit, supply/marketing of improved farm input and output, improvement, commercialization and intensification of farming systems.

### 3.4 NALEP Policy statements

In analysing challenges to be addressed by the policy, these were grouped into eleven areas requiring policy intervention as follows:

- 1. Extension services provision and organization**  
*Government will create capacity for quality extension services to the large number of clients, and encourage broad involvement of stakeholders in service provision.*
- 2. Privatization and commercialization**  
*The Government will create a favourable environment for private sector participation in extension service provision.*
- 3. Extension approaches and methods**  
*Extension service providers will use and test multiple approaches and methods aiming at developing models for reaching various clientele.*
- 4. Contents and choice of extension messages**  
*Contents and choice of extension messages will be developed based on clients' socio-economic and cultural context.*
- 5. Clientele empowerment**  
*The service providers, public or private, will contribute to clientele empowerment.*
- 6. Stakeholder coordination and networking**  
*Strengthen coordination and networking among extension service providers, clientele and other stakeholders.*
- 7. Human Resource Development of extension service providers**  
*Extension service personnel will be recruited, trained and equipped to respond to the emerging needs of the clientele, including gender considerations.*
- 8. Technology Development and Packaging**  
*The Government will develop a strategy to promote research, extension and farmers linkages.*
- 9. Extension facilitating factors**  
*Extension service providers will contribute to improved access to extension facilitating factors by strengthening linkages between agriculture, livestock and rural development actors.*



**10. Financing of extension services**

*The Government will ensure that private and public financial allocation is sufficient to meet the requirements of extension services.*

**11. Mainstreaming crosscutting issues in agriculture and livestock extension services delivery**

*ESPs will address relevant cross-cutting issues in their extension activities*





**SECTION II**  
**GUIDELINES FOR POLICY IMPLEMENTATION**



## Introduction

The guidelines provided in section II, describe the roles of stakeholders and the initiatives and actions which they need to take to implement the National Agriculture and livestock Extension Policy (NALEP). It includes recommendations on the implementation of NALEP, developed at national and States' level consultative workshops and meeting by Senior Management Team from MAF and MARF on 17 of December 2011. The key recommendations from the workshops were retained and expanded to form the basis for this strategy.

## 4 EXTENSION SERVICES PROVISION AND ORGANIZATION

### *Policy Direction*

The Government will promote a pluralistic agriculture and livestock extension system, building on broad participation in local level planning, coordination of development activities and collaboration between stakeholders. Part of this system will involve innovative communication technologies, as well as contracting with other ESPs for the delivery of extension services.

*The Government will be the regulator*, directing the agriculture and livestock extension activities and be responsible for measuring and reporting impact from all agriculture and livestock extension programmes in the country. Emphasis will be placed on creating structures and systems to enable the Government to direct the scope, implementation, monitoring and evaluation of agriculture and livestock extension services with a focus of ensuring quality of services delivered.

Specific roles will be the collection of agriculture and livestock knowledge and information; creation of extension messages and technological packages; partnering with research and education/training institutions; and collaboration with development partners. The Government will also focus on the creation of national human capacity to provide quality extension services to the large number of clients, encouraging a broad involvement of stakeholders in services provision.

### *Implementing the policy*

#### 4.1 Categories of service providers and their roles

The Agriculture and Livestock Extension Policy promotes extension service delivery by both public and private sector. ESPs to be guided by policy can be divided into three main categories:

- i. Government Organizations (GOs) - e.g. the two ministries, research and learning institutions.
- ii. Non-Governmental Organizations - e.g. NGOs, Community Based Organizations (CBOs), Faith-based Organizations, farmers' organizations/associations/unions.
- iii. The Private Sector - e.g. private commodity oriented and commercial agro-business companies, individual professionals, consulting firms, individual farmers.



#### **4.1.1 Role of Government ministries**

Key line ministries have a critical role to play not only as providers of extension services but also as initiators and regulators. They will initiate collaborative fora at Payam, County, State and GOSS levels for coordination of sector development in general, as well as of ESPs' activities. They will also develop and implement projects and programmes that will support the development of the private sector and promote pluralism in extension service delivery. A major role of the Government, both at GOSS and State levels, will be to ensure quality of services through registration, licensing of ESPs and follow up of their activities.

#### **4.1.2 Role of universities and research institutions**

Universities and agricultural research institutions will continue to be sources of new technologies and production innovations to the farming community. The agriculture and livestock extension policy advocates emphasis of participatory research agenda. Research will be based on farmers' needs and targeted to address farmers' problems. There will be need to establish strong links with extension agents and farmers. Research will be required to recommend technologies that are competitive in terms of cost of production. To ensure that strong research-extension linkages are created and maintained, universities and research institutions will undertake on-farm research and also try out promising approaches to technology dissemination.

#### **4.1.3 Role of farmers' associations and cooperative unions**

Farmer's associations and cooperative societies are expected to play a major role in agriculture and livestock development. They will be involved in provision of farm inputs, agricultural credit, development of collection centres, marketing of small-scale farm produce and products and can act as strong entry points for dissemination of agriculture and livestock technologies often through organizing field days to demonstrate farm inputs often in collaboration with other ESPs. Producer associations can also be involved in providing technical and marketing advisory services to small-scale farmers and provide services such as ploughing, provision of seeds and other inputs.

#### **4.1.4 Role of NGOs and CBOs**

NGOs and CBOs will play a big role in extension services particularly in this period of transition towards building a strong private sector and its subsequent engagement in extension services provision. NGOs and CBOs can further initiate change by assisting farmers develop minor infrastructure in support of commercial business oriented agriculture and livestock enterprises. They are also well placed in provision of agriculture and livestock inputs (seed and tools, drugs, vaccines, fishing gear,

etc), capacity building, providing animal health services, managing small grants and micro-credit schemes for rural communities, training in group dynamics, empowerment of women groups and general mobilization of communities. NGOs will be called upon to mobilize communities to form marketing groups, and associations enabling farmers, fisher folk and pastoralist access wholesale markets in urban centres.

#### ***4.1.5 Role of private sector***

Private organizations or companies selling inputs and buying agriculture and livestock produce will undertake specific commodity extension. Commercial agro-business community will be expected to invest in rural input supply stores, agro-processing industries, value adding facilities and semi-processing at village level. They are well placed to develop and manage collection centres, wholesale markets, and contract production arrangements.

The private sector needs strong representation on the coordinating body for policy implementation (Stakeholder Fora and Extension and Research Coordinating Committees at County, State and GOSS levels). Subsector groups can collectively be represented by associations and societies, (e.g. Dealers' Associations, Associations of Agro-chemical Suppliers and Distributors, etc.). In addition, chambers of commerce are a point of contact at GOSS and State levels.

Organizations that are capable of employing their extension staff will be encouraged to provide extension services in their areas of specialization.

#### ***4.1.6 Role of individual professionals***

Private professionals will be contracted to provide specialised services where these cannot be provided by the public sector. Moreover, the Government will aim at outsourcing such work to the private ESPs rather than creating own capacity. Individual professionals will also on a commercial basis provide services such as designs and plans, feed and fertilizer formulations, laboratory services, etc. It is expected that professional associations will be formed to play a role in the formulation of operational ethics, rules and regulations and other self-regulating mechanisms for private ESPs.

Other examples of individual professionals are CAHWs and CBEWs who after receiving start-up packages can become commercial ESPs self financed through sale of agriculture and livestock inputs.

#### ***4.1.7 Role of development partners in extension service***

Improving the effectiveness of extension services requires institutional and operational changes in extension departments as well as a fundamental shift in the approach to



the provision of services. External funding will continue to be required for research and for professional training locally and overseas, the purchase of necessary instruction materials and equipment, and start-up funds for rural agricultural credit schemes. Development partners have also been increasingly involved in financially supporting extension services provided by NGOs and CBOs. This support should be continued to assist in the evolution of pluralism in the delivery of services and for this reason, development partners will be encouraged to also promote private sector development in the provision of extension services.

## **4.2 Important mandates of GOSS, State and County administrations**

Provision of extension services rely on a range of support functions from different administrative levels. Some important mandates are as follows:

### **4.2.1 Mandates of key ministries at GOSS:**

1. In consultations with implementers, formulate, implement and disseminate policies to the States.
2. Provide regulatory services/quality control including registration and coordination of ESPs.
3. Invest in office infra structure, and provide funding of State operations.
4. Develop relevant extension projects in respective subsectors within the policy framework, and facilitate and coordinate implementation.
5. Develop and test extension approaches and prepare operational procedures.
6. Develop procedures for planning/budgeting/M&E.
7. Support capacity building of Government, NGO, CBO and private sector ESPs.
8. Technical departments to provide technical supervision to ESPs in the States.
9. Technical departments to provide resource persons for training of State/County/Payam staff.
10. Participation in monitoring and evaluation of extension programmes.
11. Provide extension services (mainly through experienced SMSs providing advice to large scale farming enterprises.
12. Contract private ESPs (outsourcing).
13. Technology development and dissemination of research findings.
14. Ensure availability of agricultural inputs (seed, tools, drugs, vaccines, etc).
15. Collaborate closely with development partners in mobilizing resources needed for operating the extension services system.
16. Collaborate (network) with ministries having major stakes in agriculture and livestock sector development (e.g. land, environment, water, infrastructures, local administration, good governance and social development).

#### **4.2.2 Mandates of State Governments:**

1. Responsible for agriculture and livestock sector development in the State (aiming at improved agriculture and livestock production and market oriented farming for enhanced livelihood of its population).
2. Adaption of policy framework to local conditions.
3. Facilitation of policy implementation.
4. Operationalize policy into programme activities including setting targets for agriculture and livestock production.
5. Contracting private ESPs (outsourcing).
6. Take a lead in coordination of work plans among ESPs.
7. Supporting capacity building of ESPs.
8. Providing supervision and technical backstopping to ESPs.
9. Establishing M&E system for financial and impact monitoring.

#### **4.2.3 Mandates of Counties:**

1. Adopt and implement the policy.
2. Carry out joint planning among subsectors.
3. Provide extension and other agriculture and livestock services (e.g. veterinary services).
4. Training and staff development.
5. Organize stakeholder coordination meetings.
6. Identification of beneficiaries for support/start-up subsidy packages.
7. Carry out field supervision.
8. Engage stakeholders in participatory monitoring and evaluation of programmes.

### **4.3 Extension delivery mechanism and staffing norms**

At this initial stage of building the agriculture and livestock extension system, there is need to develop, test and promote appropriate extension delivery mechanisms with minimal/efficient logistical support and government staff to provide efficient extension services to targeted clientele:

- The model should be based on vision and mission: e.g. encourage private sector; achieve food security, and – posting of specialists should be related to existing farming systems and potential for introduction of enterprises or processing technology in an area and to the number of clients to serve.
- There will be a gradual build up of human, institutional and financial capacity.

Suggested **minimal** personnel:

- County – **two officers** representing the two key ministries with additional SMS as per requirement.

- Payam – **two extension staff** members representing main subsectors of relevance to the area.
- Boma - **one multidisciplinary extension worker** (from public or private sector) preferably with training background in predominant subsector for the area.
- In establishing needed capacity for provision of extension services, the states are encouraged to conduct a mapping of farming systems, population density, potential for intensified production, market linkages, etc. (also discussed under 10.1)

Focus should be on bringing services closer to the clients, deploying staff to Payam and Boma levels. Eventual aim of MAF and MARF is to develop efficient and cost effective extension services. Hence, while building up public capacity this factor ought to be considered. Rather than building big public capacity that would later have to be slimmed down, the government will encourage private and NGO sector to take up extension services, initially contracted by government programmes and gradually as commercial farming picks up, provide services on commercial basis.

Effectiveness of extension is a function of available facilities and infra structure. For instance, investment in staff mobility and ICT will assist in staff efficiency and in improved capacity to provide information to the clients.

For efficient extension service delivery following aspects need to be considered:

1. Provide ICT facilities and computer training in State and County offices to facilitate information exchange with farmers through extension workers - stakeholders will be encouraged collaborate in establishment of Internet facilities aiming at also building Payam Agriculture and Livestock Information Centres (see under 8.3).
2. Initially, communication to Payam and Boma will be by telephone, HF radio and by use of motorbikes.
3. Provision of CD containing recommendations and extension packages.
4. Use of video to prepare and screen documentaries on success stories.

#### **4.4 Working relationships between departments and stakeholders**

The structure for implementation of the Agriculture and Livestock Extension Policy is described in Fig 1. At the GOSS level the Inter-ministerial Technical Committee established under the Steering Committee will be extended to include key sector stakeholders. For the implementation of the policy, a NALEP Implementation Committee will be formed to coordinate the work of operationalizing the policy (Composition, Terms of Reference and working procedures will be worked out by the Technical Committee in close consultation among members). The implementation committee will have a number of working groups comprising of SMSs from technical departments, researchers, trainers from training institutions and other professionals from private and NGO sector tasked with the development/compilation of technical recommendations and other emerging issues in the implementation of the extension policy.

In States and Counties, Agriculture and Livestock Stakeholder Fora (ALSF, details in 9.1) will be established with Extension and Research Coordinating Committees (ERCCs) and working groups comprising SMSs representing key subsectors, including government, universities, research and individual professionals from private sector, NGOs and CBOs, CAHWs, FFS Facilitators, Extension Agents and progressive farmers (for more details on working groups, see 7.2).

#### ***4.4.1 Roles of stakeholder organizations at different administrative levels***

##### **Payam Agriculture and Livestock Stakeholder Fora (ALSF):**

- Coordinate agriculture and livestock sector development activities.
- Oversee implementation of the agriculture and livestock extension policy.
- Resource mobilization for Payam development.
- Networking with other organizations.
- Convene stakeholders' consultative meetings.

##### **Payam Implementation Team (PIT)**

The PIT composed of nominated members from stakeholder forum is the implementation arm of the Payam ALSF whose main roles are:

- Facilitate joint planning, exchange of information between extension stakeholders/ collaborators.
- Supervise extension programme implementation.
- Guide/participate in site selection for extension.
- Institutionalize payam monitoring and evaluation system.

##### **County ALSF**

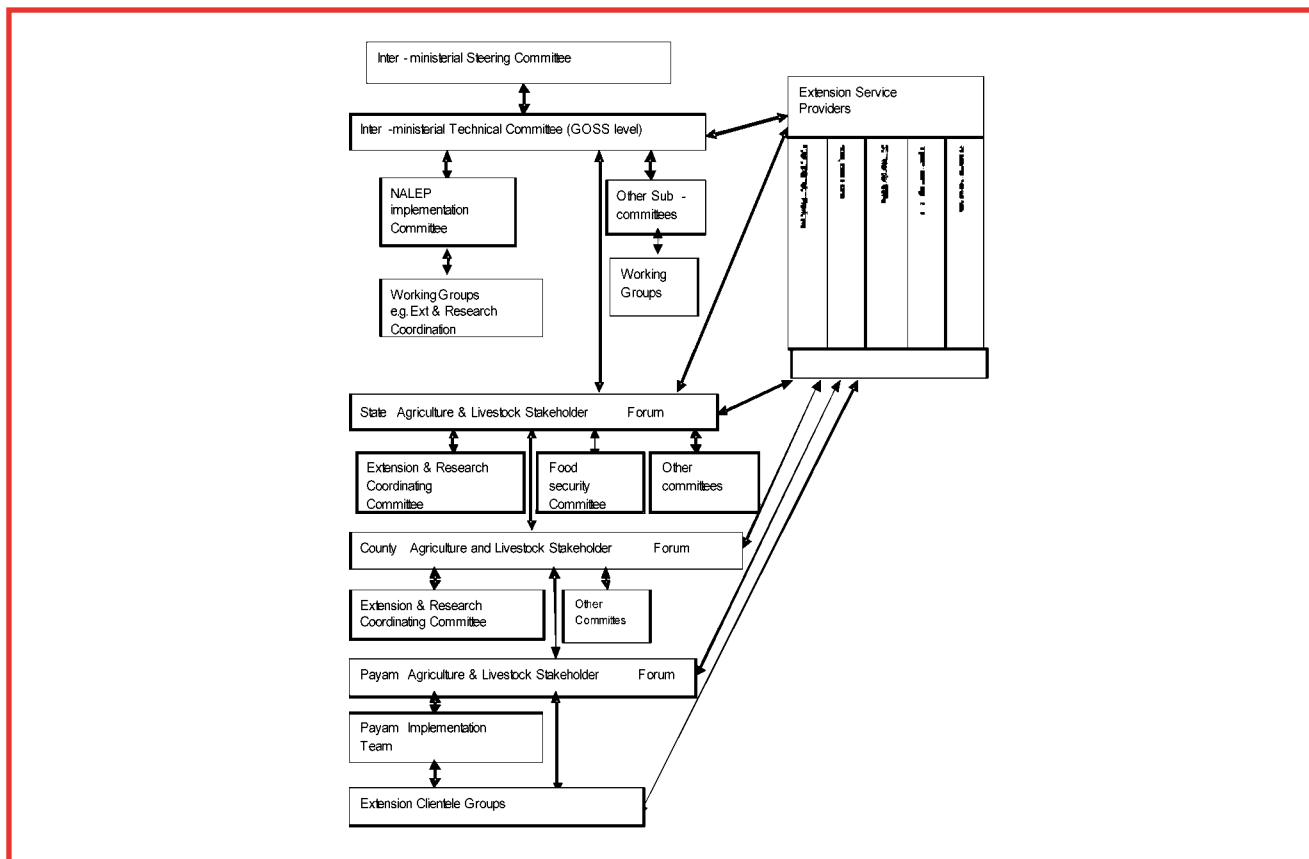
Similar roles as for Payam ALSF with emphasis on enhancing collaboration and partnerships between stakeholders, mobilizing local resources to support community development programmes, monitoring and evaluation of programme implementation.

##### **County Extension and Research Coordination Committee (ERCC)**

Secretariat of the County ALS: its functions correspond to those of PIT at the Payam level with a reduced field implementation responsibility but a higher coordinative function such as:

- Carrying out a stakeholder analysis and facilitating stakeholder fora at County level.
- Oversee quality control of ESP work (peer review system).
- Form working groups for development of extension packages and coordination of extension and research activities, development of research agenda.

**Figure 1. Proposed institutional arrangements for implementing the National Agriculture and Livestock Extension Policy**



**State ALSF**

The State ALSF will coordinate development activities in the State with following main roles:

- Linking up with the County and State stakeholder fora.
- Promote exchange and sharing of information at the State level while enhancing collaboration and partnerships.
- Coordinate planning, monitoring and evaluation of implementation of agriculture and livestock development activities in the State.
- Resource mobilization for development programmes in the State.
- Networking with other organizations.
- Convene stakeholders consultative meetings.

**State ERCC**

- Operationalizing agriculture and livestock policies including the extension policy.
- Networking with other service providers at State level and encourage replication of successful approaches.
- Coordinating the development process and initiating the various stakeholder fora within the State.

## 4.5 Coordination of extension services provision

**Coordination of ESPs activities** will be through the NALEP Implementation Committee at GOSS level and Extension and Research Coordinating Committees (ERCCs) at State and County levels. These are sub-committees to the Technical Committee (GOSS), and to the Agriculture and Livestock Stakeholder Fora at State and County level. The Committees will form working groups to deal with particular issues such as development of extension packages for the areas where they operate.

ERCC's role is to minimize the duplication of effort and ensure that, collectively, the plans of agencies participating in implementation of the policy address the needs of rural communities in a balanced way. It is at the level of ERCC where initial commitment to collaboration and coordination will be translated into joint executive action.

The results of farmer needs assessments by the different ESPs will provide the foundation for the preparation of extension plans. It is from the discussion of Farmer Information Needs Assessment results at ERCC meetings that extension plans will emerge and inter-agency demand-oriented collaborative projects will be identified.

ESPs will participate in quarterly meetings to review work plans and reports to achieve improved coordination as well as to ensure they comply with government extension goals and adhere to the agriculture and livestock extension policy. The ESPs will also establish linkages and networking between service providers at GOSS, State and County levels (through Website and annual conference). It will be a requirement that ESPs report on quarterly basis to the concerned authority.

## 4.6 Means of formalizing collaboration between implementing partners

Close linkages between GOs, NGOs and the private sector are a fundamental requirement for the implementation and the establishment of efficient and effective extension services. A formal statement expressing commitment to policy implementation is required of implementing partners. Types of agreements that can be used are:

- A general Statement of intent to collaborate between the different extension providers.
- An agreement (or understanding) between parties to collaborate on a specific extension project or series of projects.
- An agreement as to the services to be supported and the terms of the grants or loans to be provided, if the collaborative project is to be supported with Government or external funds.

#### **4.7 Setting of standards for service providers**

Providers of extension services must be recognised organizations that have professionally qualified staff in agriculture, forestry, livestock production, fisheries or animal health. To ensure quality services, standards for ESPs will be set by the line ministries in close consultation among stake-holders.

Standards will include following aspects:

1. Professional capacity (level of education, skills and experience). Suggested minimum qualifications for CBEWs to be 3-9 months agricultural and livestock training.
2. Organizations are required to have a plan for regular training of its technical staff .
3. Requirements for availability of resources/e.g. means of transport and availability of capital, transparency and strict procurement rules for the organization.
4. Capacity in M&E, value chain approach and ability to cover cross cutting issues.

#### **4.8 Development of system for registration and licensing of ESPs**

Some points to be considered for development of procedures for registration of ESPs:

1. Inventory of existing and potential ESPs among farmer groups and associations, NGOs, CBOs, individual professionals, private companies will be done by line ministries at State and County level. The information will be used by Agriculture and Livestock Stakeholder Forum to establish a service provider data base which will be updated on a regular basis.
2. ESPs (organizations and individual providers) will be required to register and obtain registration certificates. The registration will be done by MAF and MARF at State and County level depending on geographical area coverage.
3. In the process of registering the ESPs, assessment should be done to ascertain ESPs capacity and standards of operations.
4. For local NGO's and CBO's to be able to register as ESPs they should have registered under Ministry of Social Affairs and also at the SSRRC.
5. Private ESP's will register with Ministry of Finance and Trade and then with relevant line ministry to be accredited/licensed as ESPs.

#### **4.9 Mechanism to oversee that set standards are followed**

The ALSF will provide a list of people and organizations that meet required standards for provision of extension services to assist clients making informed choice of providers. The responsibility for the quality of extension services delivered generally lies with all extension providers in that they must ensure that advice and information they convey is accurate and beneficial to the client. Self-regulation by ESP members in ERCCs is an important element in maintaining high professional standards and will be encouraged in combination with monitoring of the performance of ESPs by the Government.



#### 4.10 Bottom up planning

The participatory approach to extension need support by bottom-up planning procedures (from frontline to State level) and activity based budgeting involving extension agents and clients in consultations. In this process stakeholders will be involved in the identification of project areas for the implementation of extension programmes. Thus extension approaches promoted by NALEP for service provision to farmer groups, will build on participatory planning and preparation of community action plans and farmer group plans forming the basis for ESPs work plans.

#### 4.11 Rationale for an Effective Participatory Monitoring and Evaluation

NALEP provides the framework for conducting extension services through government extension delivery system as well as through ESPs from the private sector (NGOs, companies, etc). This pluralism in service delivery makes it necessary to design an M&E system that can be implemented in collaboration among stakeholders and under the umbrella of stakeholder fora at different levels.

The M&E system for agriculture and livestock extension programmes therefore should be designed to:

- i. Capture measurable objectives as outlined in the logical framework matrices of projects and key stakeholders in extension.
- ii. Involve all key stakeholders in the M&E system in a participatory manner.
- iii. Have an effective system for data and information collection, analysis, storage, dissemination and feedback mechanism.
- iv. Suggest institutional arrangements for the M&E and also build the capacity of stakeholders.

The M&E system should be result-based and cover both process and implementation progress monitoring as well as outcome and impact monitoring.

##### **Process and implementation progress monitoring:**

- a. **Method of monitoring:** The main indicators will be derived from input and output monitorable indicators based on the realisation of work plans and budgets. Examples of progress monitorable indicators include attainment in targets for establishing extension organizational and institutional organs (e.g. Farmer groups formed and committees established at different levels); number of extension workers trained in specified skill areas; number of farmer groups trained in specialised areas; ratio of extension workers to clients; new technological packages available to clients; level of access to credit by extension clients. The main sources of information/means of verification will include, but not be limited to: (i) financial

expenditure reports; (ii) activity reports; (iii) Training Needs Assessment (TNA) reports; and (iv) monthly and quarterly progress reports.

- b. Stakeholder Involvement:** Government departments and other stakeholders, preferably through the ALSF at different levels, will actively participate in the participatory M&E system. Grassroots institutions such as farmer groups will also have their own Action Plans, developed individually or as part of a larger Community Action Plan (CAP), which will form the basis for a continuous monitoring and reporting and periodic evaluation.

## **Outcome and Impact Monitoring**

- a. Method of Impact Monitoring:** The main purpose will be gauging the changes, compared to the baseline situation, in the livelihoods of extension clientele as a direct and indirect result of extension services. Examples of impact monitorable indicators include sustainable operation of extension organizational and institutional organs such as farmer groups, Committees and Stakeholder Fora; changes in ratio of trained extension workers to farmers; changes in ratio of public to private extension workers; changes in the proportion of extension clients acquiring and applying technological packages; effect of accessed credit by extension clients to productivity and enterprise profitability; and changes in quality of life as picked by wealth proxy indicators (e.g. quality of housing and ownership of household assets). The main sources of information/means of verification will include, but not be limited to: (i) broad-based survey reports; (ii) baseline survey reports; (iii) impact assessment reports (both beneficiary and external assessments); and (iv) supervision and evaluation reports monthly and quarterly progress reports. Record keeping will be an essential part of farmer groups management to allow for more reliable information for both progress and impact assessment. In order to pursue this monitoring and evaluation, a system will be developed and instituted within the state ministries.
- b. Stakeholder Involvement:** Extension Clients, especially the farmer groups, will use guidelines on beneficiary impact assessment to periodically review the changes happening to their livelihoods. Members of the Stakeholder Fora will also undertake periodic review in addition to the independent reviews and evaluation to be undertaken by the Government and development partners involved in funding extension.

## 5 PRIVATIZATION AND COMMERCIALIZATION

### *Policy Direction*

The Government will create a favourable environment for private extension service provision, as well as for commercialized agriculture and livestock production, processing, and marketing.

This will entail:

1. Either direct financial support or contracting options to private CBOs, agriculture and livestock training institutions, and producer organizations to build capacity for extension services provision.
2. Instituting measures, such as extension services contracts, to encourage the private sector to take over the extension service for established commodity based commercial farms.
3. Creating models for contracting extension services between private and public sector service providers.
4. Introducing scheme for seconding government extension staff to NGOs that are involved in agriculture, livestock, fisheries and forestry extension in addition to providing them with appropriate training as per needs assessment.
5. Creating structures and systems that encourage and empower groups or external investors to set up collaborative, commercial production, processing and marketing programmes for agriculture and livestock products.

### *Implementing the policy*

#### **5.1 Identification of subsectors with potential for privatization and commercialization**

As a basis for the planning of agriculture and livestock extension activities in a state, stakeholder fora should identify commodities/subsectors with expected potential for privatization and commercialization of extension services provision. As an example, consultative workshops organized in the ten States in October 2010, revealed the following subsectors expected to have a potential for privatization and commercialization in South Sudan.

#### *Forest products*

South Sudan has plenty of high value non-timber forest products such as lulu (shea butter), Gum Africa and forest honey, where private sector can be engaged. In addition to these, the private sector can be engaged in pulp making and timber production.

### *Crop and vegetables*

One of the key problems in agriculture sector in South Sudan is the lack of quality seeds and their timely supply. Thus, private sector engagement could fill the gap by engaging in seed production and multiplication of crops such as sorghum, groundnut, and sesame. Vegetables such as tomato, onion which are imported from outside have great potential for privatization and commercialization. Other opportunities include the supply for agricultural inputs such as seeds and agro-chemicals.

### *Livestock*

Activities that have been identified under this subsector are hides and skin processing, slaughter house management, veterinary drugs supply, animal feed production, dairy and beef production and services of CAHWs.

### *Fishery*

The fishery subsector was presented as arguably the most underutilized subsector yet with great market potentials. More than half of fish harvested is lost due to the lack of access to market, inefficient and unhygienic processing techniques and very weak fish subsector value chain. This is one area where engagement of private sector offers a good prospect.

## **5.2 Some models for privatization and commercialization of extension services**

The Government will promote privatization and commercialization of extension services to commercially viable agriculture and livestock enterprises. However the Government must be prepared to support poor and vulnerable people with free services. Stakeholder fora will take the responsibility to coordinate ESPs' activities and assign NGOs to work with clients who are not in a position to pay.

Some examples on arrangements leading to extension services provided by private sector:

1. Private companies marketing and or processing certain agriculture and livestock products will through promotion campaigns attract farmer groups to enter into contract with the company to produce the commodity. The contracts will include provision of extension services to the producers as well as provision of farm inputs (cost to be deducted from final payment for delivered produce). This type of arrangement goes for most cash crops.
2. Large scale farms might decide to have out grower schemes to channel more produce through their market channels and processing plants. This can then be arranged through individual farmers (entrepreneurs) taking on the responsibility to mobilize groups of farmers to join the out grower scheme. They will for a fee organize the farmers and connect them with the scheme. Contracts will be signed similarly to the case under 1.

3. Farmer groups interested in an enterprise that is profitable and therefore can easily pay for extension services will identify individual specialists who can be hired to provide advice as and when required.
4. Input suppliers can be trained to provide advice related to their products.

A commodity based private extension may start gradually with farmers practicing semi-commercial farming. Initially, focus will be on establishing private-public partnership in agriculture and livestock extension. Focus will then gradually change towards substitution of public extension by private extension.

Initiatives on privatization and commercialization may begin in a single State or pilot area and expand over time, bringing farmers to the point where their future extension requirements can be met by private sector and provided on a payment for services basis, leaving the public service sector to serve new clients especially vulnerable and marginalized groups.

Those services which contain elements of both private and public goods should, where practicable, include an element of cost-recovery or cost-sharing.

As part of privatization, State governments can look into how the universities and training institutions such as: Marial Lou Livestock Training Centre, Crop Training Centre (Yei) and Padak Fishery Training Centre, can initiate providing services on commercial basis to subsectors that have the potential for privatization and commercialization.

### **5.3 Proposed incentives to attract private ESPs**

Following are examples of possible support to ESPs by government in an effort to attract private sector involvement in extension service provision by:

1. Providing of incentives such as tax break for start up phase, access to finance (loans).
2. Facilitating land acquisition by private sector investors (creating awareness of existing rules and regulations).
3. Seconding technically skilled government staff.
4. Providing coaching/supervision and training of extension workers and agents.
5. Providing research data and technical information through establishing and running AKIS.
6. Establishing infrastructure for communication (e.g. internet connectivity, telephone, etc.).
7. Providing grants to be handled by ESPs.
8. Serve as clearing house on extension training opportunities and programmes through Web portal and annual events.

## 6 EXTENSION APPROACHES AND METHODS

### *Policy Direction*

ESPs, both government and non government, will adapt and adopt multiple participatory approaches and methods aiming at developing models for reaching various clienteles.

These will adhere to the following principles:

1. Demand-driven and beneficiary led.
2. Use of participatory planning and participatory monitoring and evaluation.
3. Acknowledge and incorporate indigenous knowledge and practices when appropriate to the environmental and production goals.
4. Use various information and communication technologies (ICTs) such as radio, TV, ICT (e-extension), simple leaflets, field days, demonstrations and information centres depending on the intended audiences, and messages, as well as traditional means of communication.
5. Support and motivate formation of groups and associations.
6. Develop programmes and extension campaigns with particular focus on youth, women and unemployed.
7. Use value chain, sector wide approach, training male and female farmers to become more active members in the agriculture and livestock value chain.
8. Link clientele with service providers and markets, and collaborative marketing approaches.
9. Advocate for policies that enable commercial production approaches.
10. Emphasize cost effective approaches and methods, incorporating concepts of farming as a business to encourage small holders to move beyond household production.

### *Implementing the policy*

#### **6.1 Common extension approaches and methods currently used in agriculture and livestock programmes in South Sudan**

Some of the extension approaches currently being used in South Sudan are:

1) Contact farmer/lead farmer approach; 2) group approach; 3) Farmer Field Schools (FFS) approach; 4) Project approach (e.g. SPCRP, SAFDP, LESP); 5) Participatory approach (using PRA tools); 6) Radio listening groups approach; 7) CAHW approach; and 8) awareness campaigns approach.

Extension methods generally refer to the tools and techniques used to disseminate extension messages and information. Methods that have been utilized and promoted in South Sudan include:

1) Farmer to farmer extension – community dialogue; 2) demonstrations (result and method demonstrations); 3) field days; 4) cross learning visits; 5) mass media – radio, TV, film shows; 6) agriculture and livestock information centres; 7) farmer training centres; 8) field based training; 9) residential training.

## **6.2 Creating a library of descriptions of appropriate approaches and methods**

At the moment there is limited experience in South Sudan from use of extension approaches with the desired features advocated for in the policy. It is therefore necessary to test and further develop approaches and methods studying their effectiveness and impact in relation to where they are applied to identify and describe the most promising approaches that can be recommended

The NALEP implementation committee at GOSS together with ERCCs at State and County levels will take a lead in collecting information about currently used approaches and where they are applied. Programmes with agriculture and livestock extension components and ESPs carrying out extension will be encouraged to use a variety of approaches that conform to the principles set out in the policy. Performance of the approaches and methods used will be studied and experience gained will be used to develop guidelines for the selection of suitable approaches and methods in relation to area of operation.

### ***Some steps in documenting current situation:***

1. Develop a standardized format to document various ESP's operations and extension approaches being used. The format should contain key information such as the purpose, nature of the program/project/activity supported, target groups, resources used (human, financial, logistical), intended outputs and impact indicators and a detailed description of extension approach and methods used.
2. Categorize the area of operation providing information such as agro-ecological zone, farming systems which should touch upon the crop, livestock, forestry and fishery subsectors.
3. Describe and characterize the farming communities, major occupations, major sources of income etc.
4. Document key resources and assets – tangible (water, forest, livestock, crops, presence of research institutions, training centres and credit facilities) and intangible (access to services, information and markets) at the State and County levels.

The information above will facilitate in categorizing areas of operation for the purpose of giving general recommendations for suitable extension approaches and methods to be selected.



### 6.3 Aspects to consider in selection of approaches and methods

The Government of South Sudan is committed to make extension services accountable to the people it serves. This means extension approaches must be relevant to the context and needs of the clientele it intends to serve. The approach selected must allow space for clientele participation in making decisions in addition to being cost effective and easily understood by the clients. Highly diverse socio-economic, cultural and geographical conditions in South Sudan imply that no single approach will be applicable to deliver extension services.

It is apparent from above that there are several approaches and methods in use in delivery of extension services. The selection of appropriate approaches and methods thus become crucial if they are to be effective, efficient and well accepted by clientele.

The following provides a broad guideline to facilitate the selection of an appropriate approach or method:

1. Understand the local context (socio-economic condition of the clientele), environment and types of problems to be addressed including gender issues.
2. Identify the purpose/objective of the programme and who is providing the service.
3. Understand the nature and capacity of the extension personnel who would be engaged in carrying out the programme/activity.
4. Describe nature, type and extent of problems to be addressed.
5. Articulate resource needs – human and financial resources and logistics.
6. Establish intended outputs.
7. Understand clientele group/type/local context (culture, taboos, norms, value system).
8. Nature of field personnel as well as the nature of clientele – literacy level, gender etc.
9. Resource required (cost, timeframe involved and size of the target group to be reached).
10. Inclusive – the approach selected should be inclusive to include marginalized groups including women, youth, disabled and returnees.
11. Provides space for clientele participation in decision making, especially of the vulnerable and marginalized groups (women, returnees, disabled, HIV affected, women headed households etc).
12. Parallel to the work of responding to client demands, ESPs will also promote opportunities identified by the ERCC working groups.

#### 6.4 Recommendations for the introduction of ICT in delivery of extension messages and market information

1. Provide computer facilities and computer training in state and county.
2. Encourage stakeholders to collaborate in establishment of internet facilities aiming at also equipping Payam information centres with computers and gradually with internet access (solar system for electrification).
3. Initially communication to Payam and Boma will be by telephone, HF radio and by use of motorbikes.
4. Community radio station for agricultural and rural development should be promoted in Public-Private Partnership (PPP) model.
5. Introduce agricultural Radio, TV and mobile cinema programmes; Broadcast Extension programmes once a week.
6. Prepare agricultural information Web site, (part of AKIS described under 11.3).
7. Provide CDs containing extension packages.
8. Farm journalism should be promoted by suitable arrangement for documenting success stories and best practices.



## 7 CONTENTS AND CHOICE OF EXTENSION MESSAGES

### *Policy Direction*

Contents and choice of extension messages will be developed in a participatory process engaging a broad base of stakeholders with leadership from community leaders and line ministries. Decisions on extension messages will be based on national goals, intended outcomes as well as clients' socio-economic and cultural context.

The messages will focus on:

1. Skills and technologies that empower the producers to become more engaged in the whole value chain from production, value addition, storage, and marketing to consumers and export markets.
2. Dissemination of information that will facilitate the transformation of agriculture and livestock from subsistence to a profitable business including the introduction of safe use of agrochemicals as well as intensification of sustainable farming practices.

### *Implementing the policy*

#### **7.1 Mechanism for establishing farmers needs**

In demand-driven extension, ESPs role is to provide services and technical advice demanded by the clients. The main avenue for establishing farmers' needs is through the initial participatory planning and needs assessment (using appropriate PRA tools including the collection of key baseline data) expected to be carried out by ESPs together with key stakeholders when starting extension work in a community. Needs are also continuously established during day to day contacts between farmer groups and the extension workers (including reports from farmer field schools). Extension workers should request that farmers prioritize their needs which will then be submitted together with ESPs' monthly reports to County and State level where the information will be forwarded to different working groups under the ERCC (see the structure described under 4.4). The working groups will develop extension packages based on existing knowledge/information but also forward to research those issues that require further development of technical solutions. Recommendations adopted in working groups under the ERCCs will then be disseminated to the farmers by ESPs.

## **7.2 Proposed working group of professionals and clients developing extension packages**

Directorate of Extension Services will take the lead in forming the extension and research coordinating committees under each stakeholder forum. These committees will have members representing: MAF, MARF and ESPs (NGO, CBO, private) Farmers' Union, Pastoralist Union, Farmers' Groups, and Producer Associations, research organizations, learning institutions and individual professionals.

The Terms of Reference for the Extension and Research Committee will include coordination of extension and research activities, development of extension messages, as well as research agenda as identified and needed by farmers. It will require inclusion of field visits and periodic meetings. The Committee will also be tasked with quality control of ESP work (peer review system). The Committee will appoint working groups of SMSs representing key subsectors, including government, universities, research and individual professionals from private sector, NGOs and CBOs, CAHWs, FFS Facilitators, Extension Agents and progressive farmers (important to have women representation). These working groups will develop extension packages in response to established needs and also develop a menu of opportunities covering enterprises and technologies that are not yet introduced in the area but considered having good potential and therefore need to be promoted through the extension services.

To encourage participatory approach, ESPs will be required to organize regular discussion fora so that reputable farm input distributors and other service providers can share in the information they pass to the farmers. There is need to create an Agricultural Information System (AIS) that will collect relevant information and make it available for use by all ESP's in the development of extension messages. This will be part of AKIS described under 11.3.



## 8 CLIENTELE EMPOWERMENT

### *Policy Direction*

ESPs, both public and private, will be innovative in empowering farmers' engagement in the local institutions, including producer group formation, strengthening functioning of these groups, and ensuring broad based representation by increasing the involvement of women producers and extension agents.

### *Implementing the policy*

#### **8.1 ESPs contribution to farmers/farmer group empowerment**

ESPs such as MAF and MARF, NGOs, CBOs, individual professionals and lead farmers will contribute to farmer empowerment by:

- Encouraging the farmers to form local institutions (e.g. producer groups, producers' associations and cooperative societies Boma development committees) to facilitate provision of knowledge, skills, and access to resources.
- Supporting capacity building of farmers' institutions.
- Encouraging female farmers to form their own specific groups – Similarly to Junior FFS, make Female FFS.
- Organizing meetings/workshops/training activities (e.g. adult literacy, leadership skills, business skills, etc), agricultural shows/trade fairs or exhibitions and cross visits.
- Linking farmers with the market including advising them on how to get market information and to improve their negotiation position for better prices through collective sale of farm produce.
- Encouraging financial institutions to provide farmers access to credit facilities.
- Assisting clients in preparation of community development plans during participatory planning and assist in forwarding the plans to authorities to solicit for services at the grass root level.
- Providing access to information through media and through specific information centres established at Payam level.

#### **8.2 Increasing number of women extension agents**

ESPs will deliberate to increase the number of female extension workers (target of having at least 30 percent women among the extension personnel) in extension services to be able to better support women clients. This can be done by:

- Sensitizing women on their important role in development of the agriculture and livestock sector.
- Creating opportunities for females to join agricultural colleges/institutions.
- Advertising existing vacancies widely encouraging females to apply, targeting graduates, secondary school leavers and females who are active in community development.
- Providing attractive on-the-job training for female extension workers.
- Improving logistical support (transport) to extension workers.
- Providing incentives to women in the form of improved housing at their work stations.
- Having a strong policy against harassment of female staff.
- Designating female extension workers specific responsibilities focusing on female farmers' needs for household food security.
- Encouraging communities to identify innovative female farmers who could be further trained to become CBEWs in their home areas.

### **8.3 Establishment of Payam agriculture and livestock information centres**

ESPs should aim at establishing Payam Agriculture and Livestock Information Centres (PALICs) to improve client access to information. These centres or information desks can be established in the local agriculture and livestock office or be hosted by any stakeholder with skilled personnel having capacity to build and maintain such a centre. Examples of equipment needed in the centres: computer, power generator, phone, and preferably internet installation; a motorbike, audiovisual aids, training materials, extension packages, hand books and information materials hard and soft copies on CD (the equipment will differ depending on local infrastructure and available resources).

Activities suggested for making PALICs operational:

- Provide in-service training to the Payam staff in the use of computers.
- Promote the PALICs through mass media.
- Encourage stakeholders to pool resources to ensure all running costs are covered.
- Centres must prepare regular reports for monitoring of performance.
- Arrange cross visits between PALICs.
- PALICs could be set up together with small enterprises run by CBEW and CAHWs selling farm input.
- PALICs could in the long run venture into broader services creating employment for youth providing office support to farmers in the area.

## 9 STAKEHOLDER COORDINATION

### *Policy Direction*

Collaboration and networking among ESPs, clientele and other stakeholders will be established or strengthened at all levels with laid down roles, functions and outputs/outcomes through the development of Agriculture and Livestock Stakeholder Fora (ALSF) at State and County levels. The fora will facilitate joint planning and implementation; participatory monitoring and evaluation; and impact assessment. Furthermore, the fora will contribute to transparency and accountability in resource utilization.

### *Implementing the policy*

#### 9.1 Description of stakeholder fora

Stakeholder fora, comprising all those with an interest in agriculture, livestock and rural development, will be established at GOSS, State, County and Payam levels. These are independent bodies that will serve as a platform for coordination and sharing of information among stakeholders in the agriculture and livestock sectors. Coordination of extension activities will be done by the Extension and Research Coordinating Committee (ERCC) formed under the agriculture and livestock stakeholder fora (see organogram Fig 1.). Similarly to the ERCC, the forum will also have a food security committee coordinating stakeholders' efforts in improving the food security situation

##### 9.1.1 Some major responsibilities by the fora:

- Community mobilization.
- Coordination of planning - aiming at joint planning among stakeholders.
- Prioritisation of projects.
- Resource mobilization (including safe guarding access to farm inputs).
- Coordination of implementation of sector development programmes through sharing of reports and updates on project implementation and progress.
- Monitoring and evaluation for improved transparency and accountability.
- Emergency and disaster management.



### ***9.1.2 Some steps in establishing and running the stakeholder fora:***

1. The key ministry staff will carry out stakeholder analysis for identification of relevant stakeholders to be invited to become members of stakeholder fora. The inventory should include details such as the physical location and contact addresses, the development activities and the resource base of the stakeholder, as well as the geographical operational coverage.
2. Ensure that the forum leaders or executive body be elected from the stakeholder group with the government taking the lead.
3. When a stakeholder forum is well established it should aim at formalizing its institutional status through the drawing up of constitutions, and registration with appropriate body.
4. The forum should aim at having at least quarterly meetings at GOSS and State level and more frequent meetings at Payam and County levels (monthly or bi-monthly).
5. Stakeholder fora to form technical subcommittees including an extension and research coordinating committee.
6. Develop reporting system network and collection of reports for general viewing of all members at any time for transparency.
7. There will be two-way reporting and communication as the fora should advise government on extension, inputs required, research needs, food security situation and best practices.

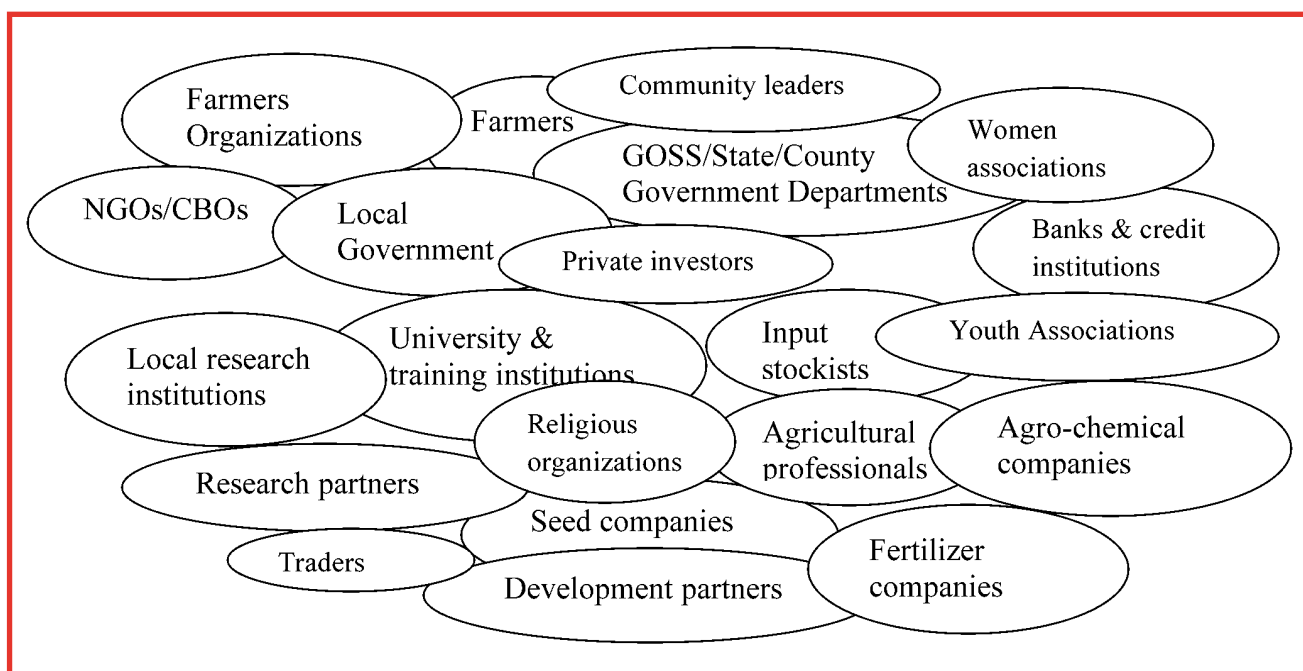
Examples of stakeholders engaged in agriculture and livestock sector development are shown in Figure 2.

### ***9.1.3 Some details of stakeholder fora activities***

ESPs entering a community are expected to carry out participatory planning together with key stakeholders (preferably under the leadership of Department for Community Development and village chiefs). Community action plans will be developed under the leadership of an elected Boma Development Committee or community leaders. Plans are then forwarded to the Payam and County ALSF for consideration for inclusion in stakeholders' development programmes.

The stakeholder fora will oversee programme implementation by setting up a system for implementers' reporting and for participatory monitoring and evaluation of field activities. The forum will take a lead in distribution of responsibilities among stakeholders to avoid duplication of activities. When fora are well established and formalized, stakeholders could agree to pool resources into a development fund (controlled by the fora) which can support local initiatives needed in implementing community action plans (including hiring of ESPs). The forum will support field exchange visits to share experiences among stakeholders and take a lead in holding agricultural shows.

Figure 2. Examples of stakeholders in agriculture and livestock sector



#### 9.1.4 How to make the fora sustainable:

1. The Government should take the lead to form the fora but fora leaders or executive body can be elected from among the members.
2. The members should feel that they are benefiting from the forum and therefore share the costs for its activities.

## 10 HUMAN RESOURCE DEVELOPMENT

### *Policy Direction*

Human resource development is the foundation of an efficient and effective extension service delivery. Training institutions will be supported to respond to the needs of the actors in the system. ESPs will prepare capacity development plans (institutional, human and financial) and propose funding mechanisms for its implementation.

ESPs will ensure that:

1. Extension personnel are adequately trained and facilitated to provide professional services.
2. Staff recruitment process is fair, transparent and is based on the appropriate qualification, experiences and human integrity.
3. Staff recruitment procedure promotes gender balance and fair representation of marginalized groups.

### *Implementing the policy*

#### **10.1 Staffing and staff recruitment**

The number of extension staff in an organization is not a good measure of capacity to deliver extension service. It is quality, knowledge and efficiency of the staff that determine the success or failure of extension service delivery. In this context it is suggested that staffing at the State, County and Payam levels should be provided according to local context, farming practices and system, main sources of livelihood, strategic targets, number of other services providers( NGOs, private sector, CBOs) operating in the area.

Based on above information each State, County and Payam will develop minimum staffing level with minimum qualification and experience required.

Selection of ESP staff to be offered training should be based on gender balance and identified skill requirements with emphasis on performance improvement and training programmes that address national/ State/ County, or organizational and individual goals. Effort should be placed to recruit female staff in extension services/programmes and selection criteria relaxed for their recruitment. Each State, County, and Payam will develop staff appraisal systems and job descriptions through consultative process, clearly indicating performance assessment criteria (something that can also be adopted

by other ESPs). All ESPs are required to prepare human resource development plans for capacity development.

## **10.2 Capacity development (training)**

Training of extension staff should be based on comprehensive TNA to ensure demand-driven and cost effective training. TNA reports will assist in selection of training that responds to service delivery requirements and seeks to facilitate career growth. TNA should be institutionalized and conducted on a regular basis at each level of the organizations to continuously upgrade ESPs' core competencies on extension, knowledge, skills and attitudes including the abilities to assimilate technology. TNA reports should be forwarded to the training institutions/centres to keep them abreast of emerging training needs. As far as practicable and relevant, the training courses should be organized within the country through the existing training centres.

### **10.2.1 Training centres/institutions**

Building capacity of public sector and other service providers is necessary to expand the pool of qualified service providers. This requires links with, and modernization of, the agricultural education system.

*Agriculture and livestock training institutions* should revitalize or review their curricula based on the capacity building requirement at all levels of the extension service delivery. These institutions should also address issues with standardization and certification of various level of training and consider development of extension in-service training and specialized courses for farmers.

Training centres and institutions for learning need to be highly customer responsive. Frequent surveys of potential customers and tailoring the programs or courses and services offered accordingly, will be essential for institutions to be able to keep abreast of demand and to realize their full potential. Linkages should be established between research and training centres, State ministries and other ESPs to set up demonstrations of advances in technology.

At least one third of time in training courses being offered to extension agents should be spent in the field working at the grass root level together with experienced extensionists. This is a practical and innovative process that should improve the quality of extension agents and the relevance of their education.

Training programmes should include a complete module on 'Extension and Farm Management to provide more in-depth knowledge of extension methodology and practices as well as farm management analytical tools. There should also be

considerable focus on the theory and practice of participatory extension approaches including real-life case studies and practical field exercises facilitated by experienced practitioners.

Training institutions need to develop proposals to seek funding for the upgrading of their facilities to enable them offer accredited training. Furthermore, strategies should be developed for sustained funding of their operations. This could include making institutions semi-autonomous to enable them run training on a commercial basis and take on contracts to provide extension services and provide training of ESP's staff.

Apart from formal training (certificate and diploma), the training institutions will provide short courses such as: 1) training of trainers course on various topics; 2) participatory planning, implementation and monitoring; 3) value chain approach to agriculture, livestock and rural development; 4) farming as a business; 5) integrated pest management; 6) fish processing; and 7) extension service delivery.

There is need to upgrade the skills of instructors at the training centres for them to stay abreast with new technologies and approaches to enhance the quality of training they can offer. Training institutions need to offer competitive employment packages to attract and keep good trainers.

### **10.3 Role of NGOs and private sector in support to training institutions**

NGOs and private sector stakeholders will contribute to human resource capacity building by:

- Organizing training courses through the existing training centres.
- Providing opportunities for ESP staff to attend skill development training courses (short- or medium-term) based on emerging needs.
- Assist training institutions develop curricula to reflect emerging needs and issues.
- Assist in develop proposals to diversify and sustain funding base.
- Assist in improving training facilities – halls, equipment, tools etc.

### **10.4 Secondment of staff to NGOs, private organizations and projects**

The following procedure may be applied to second government staff to organizations or projects:

1. The project or NGO writes to respective State ministry indicating the number of staff needed along with desired minimum qualification and experience.
2. A selection committee will be formed in order to identify, select and second staff.
3. The position will be broadly advertised within the State ministries, Counties and Payams to ensure fairness in the selection process.



4. Terms and conditions for secondment will be developed, negotiated and agreed upon between the service provider (ministry) and service seeker (NGO/projects). The terms and conditions should touch upon the following parameters:
  - a. Payment of top ups (basic salary should be paid by the ministry itself).
  - b. Seconded staff are entitled to the same DSA and other benefits (such as medical) as employees of the NGOs/projects.
  - c. As part of capacity building the seconded staff shall be trained in required skills.





## 11 TECHNOLOGY DEVELOPMENT

### *Policy Direction*

The Government will develop a strategy for sustainable funding of a research system that will operate in collaboration with extension and in accordance with farmers' needs. Innovative and sustainable approaches for funding and communication will be fostered.

### *Implementing the policy*

For extension to function well it needs close linkages with research to ensure that technical recommendations are available for the diverse conditions facing ESP staff. Adaptive research both on farm and on station is required to meet the demands for the sector.

Research centres covering the six agro-ecological zones need to establish satellite research stations in different livelihood zones to identify and introduce appropriate technologies relevant not only to the agro-ecological zones but also more specifically to suit the needs of different communities.

In building national research capacity, apart from investing in public research facilities, private entities could be contracted to carry out research in collaboration with other research organizations. Existing training institutions and other educational facilities should also be supported and encouraged to carry out research. Researchers and other professionals should closely monitor and utilize technological solutions developed and applied in neighbouring countries so as to avoid replication of research efforts.

Farmer-extension-research linkages become crucial in a demand-driven extension system as a way of directing research at issues relevant to the farmers needs. Extension and Research Coordinating Committees established under the stakeholder fora at County, State and GOSS levels will have working groups (described under 7.2) tasked with developing extension packages and identifying researchable issues.

### **11.1 Including farmers' agenda in agricultural research**

Following are some examples of activities to enhance farmers' participation in setting the research agenda:

- Researchers to train extension staff and farmers on identification of researchable issues and on planning and implementation of on farm research.
- Undertake and promote value chain analysis for all enterprises and train clientele in appropriate analysis techniques to enhance adoption of, and maximise returns from, new technologies.
- Where ESPs introduce a technology that is new to the area they will initiate on-farm trials with the participation of clientele and researchers, and report the results to the ALSF.
- Extension workers' reports from participatory assessments with farmers on researchable issues to be forwarded through ERCC systems (County-State-GOSS) to research centres for consideration.
- Formation of Common Interest Groups (farmers interested in the same enterprise) to be encouraged and efforts be made to involve them in on farm experimentation.
- Researchers to spend time in the field together with farmers and extension workers and in conducting on farm trials managed by farmers supervised by researchers and extension personnel
- Arrange cross visits among farmers for them to appreciate their role in research.
- Bring results back to farmers as part of the research/extension/training process.
- Use of farmers' fields for research and as demo plots.
- Introduce FFS (learning groups) as an efficient cost effective approach to research.

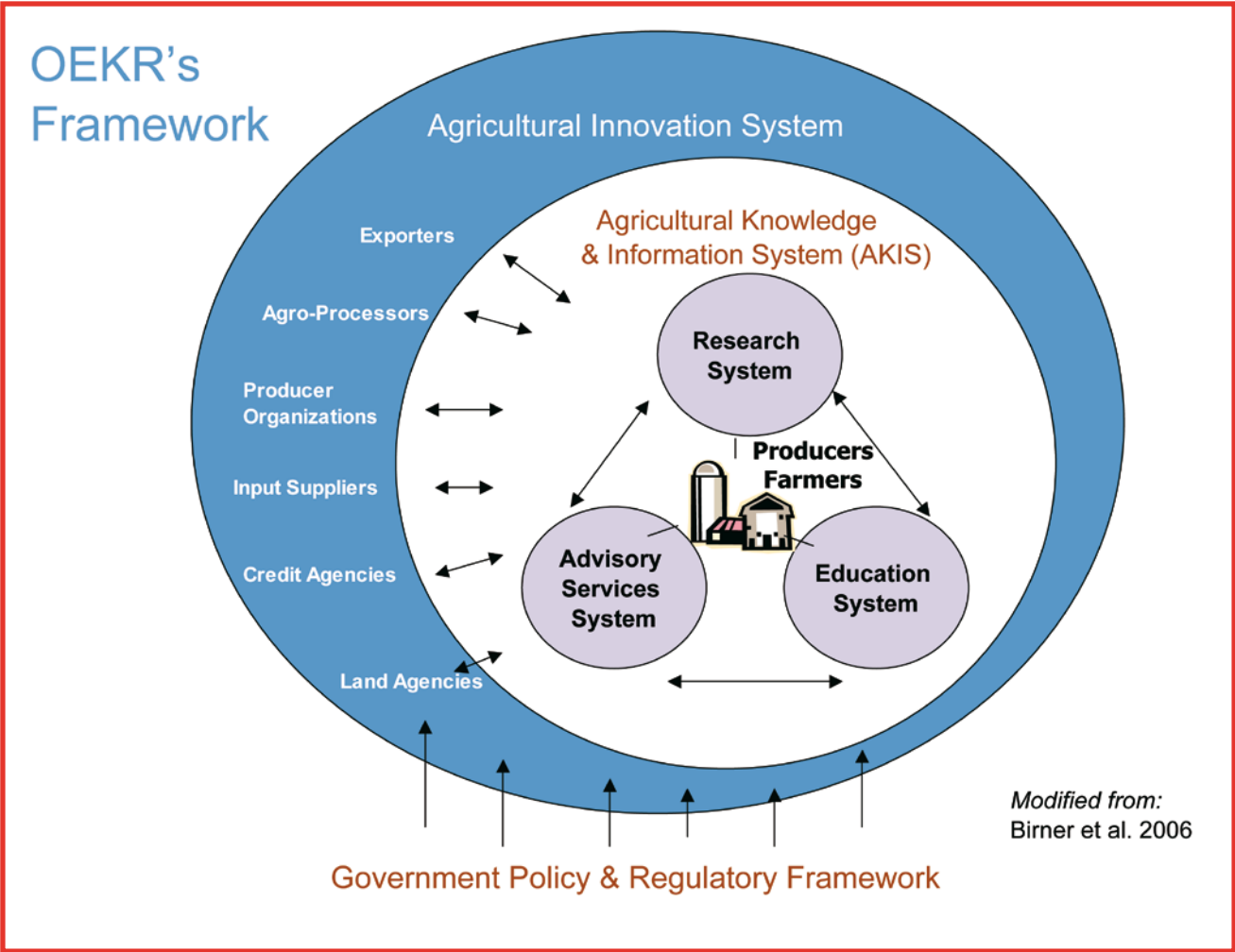
## **11.2 Communication between farmers, research and extension services**

- The ERCCs are established to link researchers, ESPs and farmers.
- Hold annual national conferences for sector stakeholders to share research findings and to discuss problems and raise issues for future research.
- Organize field visits and study tours with farmers, extension workers and researchers participating.
- Avail funds to enable research programs maintain close contact with farmers groups and extension personnel.

## **11.3 Making research findings available to stakeholders**

1. Research institutions including universities, will be encouraged to establish information desks and run extension outreach programmes for dissemination of information and technical recommendations.
2. Establish an efficient AKIS to ensure that all stakeholders are actively involved in the generation, storage, access and exchange of relevant information and knowledge. This will be the responsibility of stakeholders at GOSS level (universities, training institutions, research organizations and extension providers). AKIS is illustrated in Fig 3.

Figure 3. Agricultural Knowledge and Information System (AKIS) as part of an Agricultural Innovation System (AIS)



## 12 EXTENSION FACILITATING FACTORS

### *Policy Direction*

Facilitating factors are those that extension services are dependent upon for successful service delivery and technology adoption such as rural access roads, bridges, micro-irrigation schemes, and minor dams, rural electrification, market centres, and market information, livestock holding grounds, agricultural credit, input supply systems, and regulatory bodies/quality control systems.

ESPs will contribute to improving access to extension facilitating factors by incorporating these factors into their planning and advocacy work in support of agriculture and livestock development.

### *Implementing the policy*

#### 12.1 Some crucial facilitating factors

The following are examples of crucial facilitating factors for agriculture and livestock development identified during consultative workshops in the ten States:

- 1) access to small grants and credits to organized groups and CBOs; 2) access to markets through major roads and rural excess roads; 3) marketing facilities and means of transportation to markets; 4) market information system; 5) irrigation infra structure; 6) timely access to quality inputs (e.g. seeds, vaccines, tools etc.) and at affordable prices; 7) availability of equipment to farmers e.g. tractors, ox ploughs etc.; 8) farm inputs quality control system; 9) agricultural laws and legislation including policies on subsidies to the sector; 10) animal clinics; 11) ICT infrastructure and rural electrification; 11) show grounds; 12) cold chain for handling vaccines; and 13) provision of security.

From participatory planning and day to day interaction between ESPs and their clients they will identify and prioritize issues that limit possibilities to develop their enterprises. Community action plans will be developed where limiting factors that can not directly be addressed through extension are listed together with plans for interventions to address these issues (some activities can be implemented on self help basis but more often than not there are aspects that need support from outside). ESPs will assist in connecting clients with relevant providers of services.

Institutions mandated to provide facilitating factors will be urged to become members of the ALSF to facilitate inter-sectoral planning for provision of demanded facilitating

factors. To enhance access to finance, ALSF will lobby for financial institutions to locate and operate in the area. ESPs will educate clients on farming as a business and on management of loans and link clients who require loans to financial institutions and to traders interested in their produce and assist in the negotiations of services.

ESPs will encourage and guide farmers in formation of farmers' groups and unions/producer associations with bye laws and constitutions in an effort to give farmers a voice and enabling them taking part in planning right from Boma – Payam – County – State to GOSS level. The producers will also be encouraged to initiate construction of physical infrastructure, feeder road network and public stores on participatory basis. It is expected that producers' status in society will rise when they move from subsistence to commercial farming which will put them in a better position when lobbying for needed support.

In summary, GOSS/State levels can encourage the provision of extension facilitating factors through:

- Adopting participatory bottom up planning to meet producers' needs in respect of facilitating factors.
- Implementing joint work planning between relevant line ministries in addressing constraints that go beyond aspects that can be directly addressed by extension.
- Taking a lead in the formation and running of stakeholder fora.
- Encouraging developmental partners to contribute to funding of critical extension facilitating factors as part of support to rural development.
- Develop a clear strategy on subsidy ensuring that subsidy is provided to kick-start development rather than promoting dependency.
- Increasing the budget for roads and encourage trade linkages.
- Link the farmers to the market and input supply channels i.e. from the neighbouring countries or States.

Establishing certification and mechanisms of quality control, to ensure that farmers are supplied with good quality inputs.

## 13 FINANCING OF EXTENSION SERVICES

### *Policy Direction*

The government will ensure that financial allocation is commensurate with requirements to provide effective extension services by providing funding for the required logistical support and institutional capacity of the public extension services providers to enable them play their role in the pluralistic extension system.

### *Implementing the policy*

#### 13.1 Funding of Extension

In South Sudan with a large base of small-scale subsistence farmers, using charges for ‘common goods’ general extension information is not economically feasible and would be difficult to enforce. However, partial cost recovery may be introduced as a means of fostering a more demand-driven system and serving as an important transitional phase towards developing a market for fee-for-service extension.

Poverty reduction should be the focus of public funding whether services are provided by public services or contracted out to non-State organizations. The private sector can be mobilized to provide private extension services to ‘better off’ commercial farmers and farmers with marketable output for whom extension service delivery is profitable.

#### 13.2 Contracting of extension services

Both contracting ‘out’ and ‘in’ can be used as alternative strategies of extension service delivery. For staffing in the livestock and agricultural development projects and within NGOs, a number of public extension workers have been seconded or contracted ‘in’ and provided with operational funds, travel allowances, per diem and in some cases salary supplement to augment low civil servant wages. This is a form of private sector contracting public-sector extension staff. In contracting out extension delivery, public funds are used to contract private service providers (e.g. extension consultants, and non-profit, NGOs). Farmer organizations can also be contracted to work with public sector extension for specialized services. Such arrangements are anticipated to include benefits such as:

- Greater operational efficiency and cost-effectiveness.
- Greater accountability of extension to perform and produce results.
- Greater variety of providers of extension services.



When the publicly financed extension services are contracted out, the role of government changes from that of implementing agency, to that of quality controller, overseer and provider of training and technical information to agencies contracted. It is anticipated that the inclusions of private sector entities in the extension delivery process holds great promise for the advancement of pluralism, democratization and institutional efficiencies.

**Financing mechanisms should:**

- Guarantee effective and demand-oriented services.
- Empower clients and other stakeholders, in particular those whose voices tend to not be heard.
- Invests public funds to secure public interests.
- Promote a market of diverse providers in the extension service delivery landscape.
- Promote environmentally sustainable land use practices.
- Contributes to better livelihood security for the poor and prevents marginalisation of vulnerable groups.

Public interests related to agriculture and livestock extension make public investment (from national sources and donor funds) a necessity. However, useful and effective services should be designed for proper investment of public funds in the most helpful ways, and to mobilise private funds where desirable and justified. Sustainability in extension service delivery can be achieved by combining financial resources and competencies of various players (producers, private enterprises, local and national public bodies, donors and international public bodies).

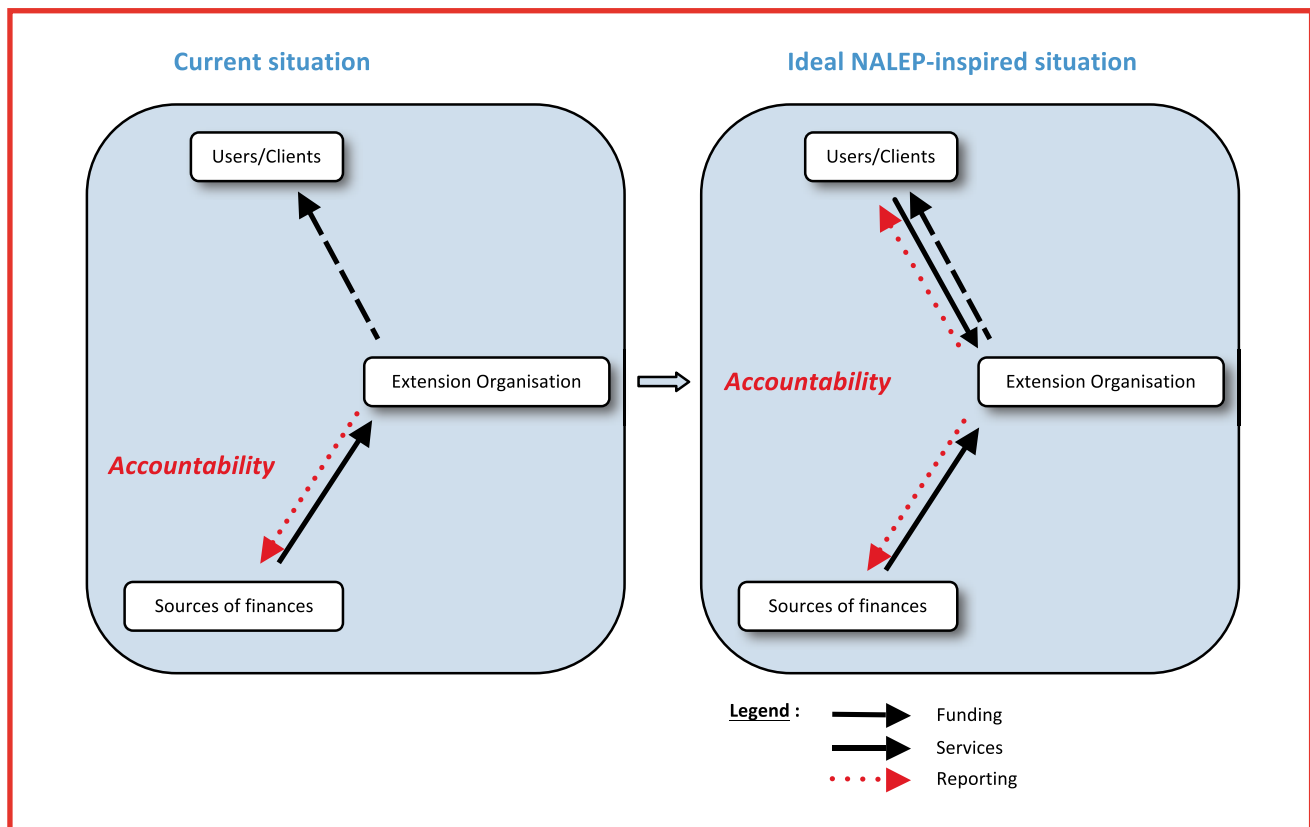
One has to distinguish between who finances a service and who delivers it. It is well possible that public funds are used to finance services provided by private sector extension organizations, and public extension organizations can complement the public funds with private funds by asking for payment from the clients for specific services. In the case of private delivery, particular attention must be paid to the impartiality of the services which should be controlled by independent bodies.

**13.3 Principles for the financing of extension - link between financial participation and empowerment**

Financing mechanisms are powerful tools to promote empowerment of producers, their organizations and rural communities, if they are designed in an appropriate way.

Participation of producers/users in financing extension, even to a modest extent, is essential if they are to be heard when they ask for good quality services responsive to their needs.

**Figure 4. Link between financial participation and accountability to clients**



Any ESPs tends to seek the recognition of the actors by whom he/she gets paid, which is in many cases a donor, an NGO administration or a central government institution. If (part of) the payment comes from the users, the service provider is compelled to seek recognition from that side, in particular if a substantial part of the payment depends on user satisfaction with the services delivered. This means that with financial participation the service providers are not only accountable to their main source of funds but also to their clients. Linkages between financial participation and accountability are shown in Figure 4 below.

### 13.4 Organization of financial participation

Financial participation of users in extension services can be organised in the following different ways:

- Direct payment for services.
- Indirect payment through membership fees of producer organizations.
- Indirect payment via levies on produce processed or marketed e.g. by a subsector organization or a private company.
- Out of tax revenues raised from agriculture and livestock produce, such as export taxes and local taxes on the movement of produce.

In a transitional period the government will apply a number of strategies for funding of extension services such as:

- i) Allocation of a set percentage of the annual agriculture and livestock budget in support of extension services.
- ii) Seeking financial support from development partners, private sector, NGOs and civil society for broad implementation and development of the pluralistic extension system.
- iii) Contract with all stakeholders to assist with the costs related to coordination and evaluation of national extension and agriculture and livestock development goals.
- iv) Taking the lead in donor coordination fora for efficient fund utilisation and priority setting in the development of pluralistic extension services.

## 14 MAINSTREAMING CROSS-CUTTING ISSUES

### *Policy Direction*

ESPs will contribute to improving information about cross-cutting issues by incorporating these factors into their planning, into the development of extension messages, when considering the extension delivery methods, and advocacy work in support of agriculture and livestock development. Gender is of significant importance due to the role of women in agriculture, livestock and food security.

### *Implementing the policy*

#### 14.1 Examples of crosscutting issues in the agriculture and livestock sectors

Consultative workshops organized in the ten States in October 2010 identified the following crosscutting issues of importance in agricultural and livestock extension work: a) boundary conflicts; b) cattle raiding; c) child abuse/rights; d) climatic change; e) cultural values and beliefs affect the work in the way people perceive agricultural and livestock practices; f) diseases (malaria, kalazar); g) domestic violence; h) drug abuse (particularly alcohol abuse as some of the extension workers drink a lot also during working hours which affects their work); i) environmental degradation - natural disasters (droughts/floods); j) gender issues including gender based violence; k) HIV/AIDS; human rights; l) hygiene and sanitation; m) illiteracy/ignorance; n) insecurity/tribal conflicts; o) land dispute; p) malnutrition; q) norms (culture, tradition); r) nutrition; s) oil pollution; t) plastic bags and the effect on the environment; u) polygamy in the context of HIV/AIDS; v) proliferation of arms; and psycho-social problems and youth unemployment

#### 14.2 Recommendation on how to mainstream crosscutting issues

Mainstreaming an issue means a commitment to ensuring that the concerns related to that issue are taken on board at all stages and in all processes. Many of the cross cutting issues will be addressed in collaboration with institutions or individual professionals charged with such issues. Extension workers will also do their part by raising these issues whenever appropriate in the interaction with farmers. For example, advice on production of a particular crop or livestock product will routinely include consideration of sustainability of soil and water resources and the avoidance of conflict with other resource users.

In addressing cross-cutting issues, all ESPs and other stakeholders will:

- Identify specific issues affecting the clients in a particular area.
- Build capacity among the clients and staff to deal with the issues.
- Link the clientele to appropriate collaborating institutions.
- Use participatory methods (especially in handling issues related to security and conflict, and natural resource management).

The stakeholders' fora provide an important opportunity for ESPs and others to share their experiences and learn from one another about how to mainstream these cross-cutting issues effectively into their programmes.

**Some examples on how to go about specific crosscutting issues:**

- Collaborate with adult literacy programmes.
- Sensitize the community of the dangers of alcohol abuse.
- Provide education on behaviour change from negative cultural believes.
- Encourage nutrition education programs in schools and to farmers.
- Ensure that human traditional ideology towards other ethnic groups is addressed in preparing the ground for commercial farming.
- Gender based violence: Creation of awareness through w/shops, drama, radio and TV, Address root cause, Promote awareness of women rights.
- Promote vegetable and poultry production for HIV-positive clients.
- Provide environmental policy documents and guidelines for proper management of natural resources in order to prepare clear and understandable extension messages to farmers.
- Promote sanitation and hygiene in collaboration with Ministry of Health (MOH).
- Support women and youth to take up income generating activities/agricultural and livestock enterprises.
- War traumatized youths and ex-combatants to be offered training on peace building and counselling.

## **GLOSSARY OF TERMINOLOGIES USED**

### **Agriculture and livestock extension service**

It is a two-way communication/training process. It aims at enhancing knowledge; changing attitude/behaviour; and improving skills for both farmers and extension workers, with a view to increasing and improving farmers' incomes and productivity on a sustainable basis.

### **Agricultural knowledge and information systems (AKIS)**

An agricultural knowledge and information system refers to the sources and paths of technical and other knowledge and information that farmers access and use. It includes indigenous technical knowledge, technical knowledge and information generated through formal research work, knowledge and information accessed through training institutions, extension systems, publications and the media.

### **Community Animal Health Workers**

Several definitions exist including barefoot veterinarians, par-veterinarians, village vets, animal health volunteers etc. Most CAWS are people who live and grew up in the community which selected them for training. CAHWs do not receive a salary from the State and are expected to make a living by selling their livestock services.

### **Extension approach**

It is a style of managing an extension system e.g. conventional extension, training and visit, participatory extension, integrated project approach, farming systems approach to research, extension and training, multi-disciplinary pastoralist approach, cost sharing and educational institutional.

### **Extension client**

An extension client is person involved in agriculture and livestock production or agribusiness enterprises and includes fisher folk and agro-processors. Where the term "farmer" appears having the meaning of "extension client", it is used generically to refer to agriculture and livestock producers, cooperators, agro-processors and other extension clients.

### **Extension facilitating factors**

Recognition is made of other services which though are not extension in nature, but are required by farmers to succeed in their agriculture and livestock business. These include physical factors such as rural access roads, micro-irrigation schemes, minor dams and bridges, rural electrification, market centres, livestock holding grounds, etc. in addition to support institutions such as agricultural credit, agricultural laws and legislation, input supply systems and quality control systems.



### **Extension method**

It is a technique of transferring knowledge, technology or communicating information.

### **Extension service**

The making available of information, training and facilitation to enhance knowledge, skills and local organization with a view to improving the productivity and well-being of the clients, in this case within the agriculture and livestock sector.

### **Extension service provider**

Is an agriculture and livestock service provider who specializes in the provision of extension services, i.e. advisory services to farmers' and other extension clients (examples: public ESPs, [e.g. ministries], NGOs and CBO ESPs, Commercial ESPs, Higher Learning ESPs [e.g. universities and institutes]).

### **Extension strategy**

It is the means for achieving set objectives of an extension system.

### **Extension systems**

Refers to extension organizations e.g. agriculture and livestock sector extension systems. It covers the sector ministries, private commodity companies, NGOs, Faith-based groups, universities and colleges among others.

### **Farmer Field School**

“Farmer Field school” is an agriculture and livestock extension methodology which empowers farmers or groups of farmers to understand their environment, identify their production problems and develop or seek solutions internally or from outside. It emphasises joint problem analysis, joint learning and problem solving between extension personnel, researchers and the farmers. All activities are done at farmers' plots and must be very participatory. This methodology aims at making a farmer a trainer and master of his/her destiny in terms of agriculture and livestock knowledge, technology dissemination and technology adoption.

### **Information and Communication Technology (ICT)**

Totality of technologies such as computers, software and connection to the Internet that fulfil the functions of information processing and communications.

### **Pluralistic Extension**

Refers to multiple or many categories of both public and private sector ESPs serving different types of extension clientele.

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