



### **REPUBLIC OF SOUTH SUDAN**

# MINISTRY OF AGRICULTURE, FORESTRY, COOPERATIVES and RURAL DEVELOPMENT

# AGRICULTURE SECTOR POLICY FRAMEWORK (ASPF): 2012-2017

### **JUBA**

### **AUGUST 2012**

### **Forward**

By

Hon Dr Betty Achan Ogwaro
Minister of Agriculture Forestry Cooperatives and Rural Development

The economy of South Sudan is based on agriculture, which consists of a combination of subsistence farming, livestock rearing, fishing and wild food collection. About 85% of the households cultivate land and around 65% own cattle. About 79% of the total household consumption is spent on food (81% in rural and 69% in urban areas). The overall objective of the Republic of South Sudan is to guarantee "food for all" by year 2015. This will require a radical transformation of the management of the agricultural sector so as to enhance farm productivity. Cereal production, for example, will have to more than double from the average level of 700,000 mt to 1,500,000 mt per annum.

The food deficit in South Sudan can generally be resolved by addressing structural weaknesses contributing to low agricultural productivity through improvements in the state of infrastructure; provision of agricultural services; strengthening of institutions and implementing well designed policies and regulations. Other interventions will include having in place adequately skilled human resources; rational use of natural resources; having properly organised rural communities; and improved land use and tenure system.

This agricultural sector policy framework (ASPF) for 2012-2017 is formulated with the goal of increasing production and productivity on a sustainable basis by addressing key constraints in food and agricultural production, marketing, distribution and value addition. This policy framework, was initially prepared by stakeholders in 2011 as Food and Agricultural Policy Framework (FAPF) for 2011-2016, and later modified in 2012 as an overarching Agricultural Sector Policy Framework (ASPF). The framework sets out a broader policy outlook on how the sector should be managed to realise the overall objectives of ensuring food self-sufficiency and agro-industrial development.

According to the Economic Development Pillar of the South Sudan Development Plan, the greatest potential for initial new growth is expected to come from the small scale private, predominantly family-based, agriculture and livestock sectors. This is in line with the Ministry's Vision of Food security for all the people of the Republic of South Sudan, and the Ministry's Mission creating an enabling environment for the transformation of agriculture from a subsistence system into a modern, socially and economically sustainable system through science-based, market-oriented, competitive and profitable farming while maintaining the integrity of the natural resource base for the benefit of future generations of South Sudanese people.

The Agricultural Sector Policy Framework is in line with the objectives of the Interim Constitution of The Republic of South Sudan, 2005, especially article 40, which requires all levels of government to develop policies aimed at increasing production and creating an efficient and self-reliant economy; and, to protect and ensure

sustainable management and utilization of Natural Resources. This will largely contribute to achievement of millennium development goals on eradication of extreme hunger and poverty for the people of the Republic of South Sudan and the achievement of vision 2040 whose objective, among others, is to have a prosperous and a productive nation through investment in Agriculture to achieve food security

In order to achieve the goal of a revitalized agriculture that contributes to shared, inclusive and sustainable economic development, the following key issues and objectives have shaped the Agriculture Sector Policy Framework (ASPF). They include; acceleration of food and agricultural production while ensuring that the growth is pro-poor and sustainable and contribute to food and nutrition security through commercial smallholder and large scale agriculture, using mechanized and irrigation technologies. This will require both local and foreign direct investments in the sector; Improved agricultural markets and trade though investing in market infrastructure and institutions, and developing linked value chains businesses for local, regional and international markets; Develop and enhance human and institutional capacity, using different entry points from central government to community based organizations (CBOs) and business associations in the context of decentralization and empowerment of local communities. The Government will pursue a policy of public-private partnership and promote private sector, while investing in public good such as Research and Development, strategic direction, coordination, oversight, regulation, and monitoring and evaluation; and pursue agricultural growth with social and economic development, whereby the population have access to food and are free from poverty.

Among the guiding principles include, decentralization of services and community empowerment; adoption of pluralistic extension approach supported the private sector and target communities; promotion of Public-Private Partnership in delivering basic social services in the sector; promotion of Cooperatives and Farmer groups; value addition and agro-processing; and strengthening of rural infrastructure for roads, electricity and water as well as creating the right policies and environment for marketing and doing business in general.

MAFC&RD shall make an effort to involve and work with relevant regional organizations and initiatives, such as the Comprehensive Africa Agriculture Development Program (CAADP). There is also an opportunity to take advantage of global funds that encourage forest conservation and minimum emission of carbon dioxide in the production processes as part of climate change mitigation measures and ensuring green economic growth. Locally, the Ministry will continue collaborating with other line ministries at both the national and state levels.

Hon Betty Achan Ogwaro,
Minister of Agriculture, Forestry, Cooperatives and Rural Development

### **Executive Summary**

South Sudan has an immense potential for sustainable agricultural development with abundant land and favourable agro-ecology conditions. More than half of the total land area is prime agricultural land, while the remaining 50 per cent is composed of marginal arable land, forests, mountains, rivers and wetlands. The total land area of South Sudan is about 658,842 sq km while cultivated area is 27,712 sq km. Much of the country receives adequate annual rainfall, favourable to grow a range of crops. The amount and distribution of rainfall varies by region ranging from 500 mm per year in the north, providing a growing season of 100-150 days, to about 2000 mm in the Southwest where the growing season is 150-250 days. The potential for irrigated agriculture is huge thanks to many permanent large and small rivers, seasonal rivers, as well as underground water reservoirs. There are also extensive swamplands that could be developed for large scale rice and sugarcane production schemes.

The diverse soil and climatic conditions provide multiple options to grow different crops. Some of the world's rare and indigenous crop varieties such as finger millet and sorghum are important part of the traditional farming systems. Other crops include cereals such as sorghum, finger millet and maize; root and tubers like cassava, sweet potato and yams; oilseeds like groundnut, sesame, soybean and sunflower; pulses like beans, cowpeas and pigeon pea; fruits such as mangoes, citrus, avocados; and vegetables; and cash crops coffee, tea, cotton and sugarcane. Both the forest and non-timber products are also important in supporting the livelihoods of the rural population.

This Agricultural Sector Policy Framework (ASPF) spells out the Ministry's policy position for improved management of the agriculture sector, which is defined to include food and non-food crops as well as forestry, Cooperatives and Rural Development. This document deals with various services needed for the sector to yield the intended results for ensuring the Republic of South Sudan has enough food for all by year 2015.

This framework summarizes various policies that have so far been developed to guide the revitalization of the Agriculture Sector. They include policies on: Agricultural Production and Support Services like Research, Cooperatives, Rural development, Access to land, Water and irrigation, Agricultural Inputs, Seed multiplication, Plant protection and Mechanization; Support of Agricultural Markets, Value Chain Development and Finance; Food Security and Nutrition; Forestry Development and Management; Role of Agriculture and Forestry to Socio Economic Change; Sustainable Agriculture, Environmental and Climatic Change; Gender Mainstreaming; Coordination, Monitoring and Evaluation.

The Agricultural Sector Policy Framework forms a basis for development of detailed sector policies to guide this sector in the next five years

### Table of Contents

Table of Contents	•
Forward	
LIST OF ACRONYMS	
1. The Agro-ecology of South Sudan	
2. The Agricultural Sector	
2.1 Opportunities	
2.2 Constraints and Challenges to Agricultural Growth and Development1	
2.3 Problem statement	
3. Vision, Mission and Objectives of MAFC&RD	
3.1 Development Pillar1	
3.2 Our Vision	5
3.3 Our Mission	15
3.4 Our Goal1	5
3.5 Key Policy Choices and Objectives	15
4.0 Sub-sector Polices	20
Summary of the Sub-sector Policies2	21
4.1 Policies on Crops Sub-Sector2	21
4.2 Policies on Agricultural Production Support Services	21
4.2.1 Extension Services and Agricultural Education Training	21
4.2.2 Cooperative Development2	22
4.2.3 Rural and Community Development2	
4.2.4 Agricultural Research	
4.2.5 Plant Genetic Resources Conservation	
4.2.6 Access to Land, Tenure Security and Land Use	
4.2.7 Water Resources Development and Irrigation	
4.2.8 Fertilizer Distribution	
4.2.9 Seed Multiplication, Certification and Distribution	
4.2.10 Plant Protection Using Integrated Pest and Disease	
Management	
4.2.11 Agricultural Mechanization	
<del>-</del>	
5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
4.3.1 Agricultural Markets and Agribusiness	
	_
4.3.3 Agricultural Insurance Schemes and Early Warning Systems	
4.4 Policies On Food Security And Nutrition	
4.5 Policies On Forestry Development And Management	26
4.6 Policies On Role Of Agriculture And Forestry To Economic Change And	_
Social Justice	
4.7 Policies On Sustainable Agriculture, Environment And Climate Change2	
4.8 Policy On Coordination And Monitoring And Evaluation (M&E)2	
4.9 Other Key Policies On The Wider Agricultural Sector	
5.0 Policies on Crops Sub-sector	
5.1 Food crops	
5.1.1 Cereals, pulses and oilseeds2	
Establishment of Value Chain Development Programs for Maize and Rice3	30
5.1.2 Roots and tubers3	30
5.1.3 Horticultural crops3	30

5.2	2 Cash Crops		31
6.0	Policies On Agricultural Produc	tion Support Services	32
6.1			
6.2	2 Agricultural education and train	ing	34
6.3	3 Cooperatives and Rural Develop	ment and Cooperatives	35
	6.3.1 Cooperative Development		35
	6.3.2 Rural and Community Deve	lopment	37
6.5	5 Plant genetic resources conserv	ation	40
6.6	6 Access to land, tenure security a	and land use	41
6.7	7 Water resources development a	and irrigation	43
6.8	•		
	6.8.1 Fertilizer importation, man	ufacturing and distribution	44
	6.8.2 Seed multiplication, certific	ation and distribution	45
	6.8.3 Plant Protection Using Integ	grated pest and Disease Management	47
	6.8.4 Agricultural mechanization		48
<b>7.0</b>		ral Markets, Value Chain Developme	
7.1		usinesses	
7.2			
7.3	- 6	and early warning systems	
8.0		Nutrition	
8.1	•		
	•		
9.0	v z	nt And Management	
10.0	e	And Forestry To Socio-Economic Charles formula and male youth	U
_		the female and male youthure, Environment And Climate Chan	
		nate Change	
		nate change	
		iculture	
		lture	
		in Agriculture	
		ring And Evaluation (M&E)	
		elopment with other sectors	
		evelopment between national and state	
lev	_	stry	
	S	·······	
_	<u> </u>	rvice for monitoring and evaluation	
14.0	_	er Agricultural Sector	
15.0		ey	
15	-	Implementing This Policy	
15		plementation Of The Policy	
TH	HE IMPLEMENTATION OF THE POLICY	, ,	71

#### LIST OF ACRONYMS

AET Agricultural and Education Training
AFSTA African Seed Trade Association

APIS Agricultural Policy Implementation Strategy

ASPF Agriculture Sector Policy Framework
BRICS Brazil, Russia, India, China and South Africa

CAADP Comprehensive Africa Agricultural Development Programme

CBOs Community based organizations
CFR Central Government Forest Reserves

CIG Common Interest Group

COMESA Common Market for Eastern and Southern Africa

CPA Comprehensive Peace Agreement

CSOs Civil Society Organizations
CVM Cassava Mosaic Virus
EAC Eastern Africa Community

EIA Environmental Impact Assessment FAO Food and Agricultural Organization

FAPIS Food and Agricultural Policy Implementation Strategy

FAPF Food and Agricultural Policy Framework

FDI Foreign Direct Investment FSC Food Security Council FTC Farmer Training Center

GMOs Genetically Modified Organisms

ICT Information Communication Technology

IPC Integrated Phase Classification

IPDM Integrated Pest and Disease Management IWRM Integrated Water Resource Management

MAFC&RD Ministry of Agriculture, Forestry, Cooperative and Rural

Development

MARF Ministry of Animal Resources and Fisheries

MDG Millennium Development Goal

MWRI Ministry of Water Resources and Irrigation

M&E Monitoring & Evaluation

NAFSAP National Food Security Action Plan NAPA National Adaptation Plan of Action NBHS National baseline Household Survey

NBS National Bureau of Statistics NDOFF National Forest Development Fund NGOs Non-Government Organizations

NPCA New Partnership for African Development

ODA Official Development Assistance

OPEC Organisation of Petroleum Exporting Countries
PFR (State Government) Provincial Forest Reserves

PMSP Planting Material Supply Programme

PPP Public-Private Partnership R&D Research and Development

REDD Reducing Emissions, Degradation and Deforestation

RSS Republic of South Sudan

SSAMC South Sudan Agricultural Mechanization Corporation SSARO South Sudan Agricultural Research organization

SSCRE South Sudan Research Council
SS-BST South Sudan Board for Seed Testing
SSDP South Sudan Development Plan
SSFC South Sudan Forest Corporation

SS-SC South Sudan Seed Council

SSSN South Sudan Seed Network WFP World Food Programme

### 1. The Agro-ecology of South Sudan

South Sudan covers an area of 658,842 Square kilometres within the centre of the Sub-Saharan Africa, and lies within the tropical zone between latitude 3.5° and 12° North and longitude 25° to 36° East. South Sudan borders Ethiopia in the East, Kenya, Uganda and the Democratic Republic of Congo in the South and Central African Republic in the West and North Sudan in the North. Administratively, South Sudan is sub-divided into ten States; namely, Central Equatoria, Eastern Equatoria, Jonglei, Unity, Upper Nile, Western Equatoria, Lakes, Northern Bahr El Ghazal, Warrap and Western Bahr El Ghazal. Ecologically, South Sudan is divided into six agro-ecological zones (MAFC&RD 2007): the Greenbelt, Ironstone Plateau, Hills and Mountains, Flood Plains, the Nile / Sobat Rivers and the arid and pastoral zone. The Nile and its tributaries flow down from the highlands of Ethiopia, Uganda and Central African Republic into the low clay basin to form one of the world's largest wetlands, the Sudd, averaging 30,000 square km but can cover an area of 130,000 square km depending on the discharge from the Albert Nile.

The rainfall pattern varies according to agro-ecological zones. In the Green belt it ranges from 800 mm to 2,000 mm, while in the Arid Zone it may be as low as 300 mm per year. Temperatures range from 25 to 40°C. The growing season is generally between 100 to 250 days depending on the agro-ecological zone. Most parts of the country have two cropping seasons, April-June and July-December, (SSLHP/2006).

Potential arable land in South Sudan covers 30% of the total land surface, while grazing land covers 40 %, forests 23 % and swamps and open water 7% (Wongo, 1984). Natural forests and woodlands cover 23 % of the land surface of South Sudan. They are rich in valuable species such as mahogany, *Acacia senegal*, *Acacia seyal* (*Gum Acacia*) Shear Butternut (*Vitellaria paradoxa*) and *Prunus africana*. There are also plantation forests of Teak and other species. Considerable potential exists for the expansion of forest plantations of both indigenous and exotic species. Currently, less than five % of the total land area is utilized for crop production (FAO, SIFSIA, 2010).

### 2. The Agricultural Sector

The overall objective of the Republic of South Sudan is to guarantee "food for all" by year 2015. This will require a radical transformation of the management of the agricultural sector so as to enhance farm productivity. Cereal production, for

example, will have to more than double from current average of 700,000 mt to 1,5,00,000 mt per annum.

The economy of South Sudan is based on agriculture which consists of a combination of subsistence farming, livestock rearing, fishing, and wild food collection. About 85% of the households cultivate crops and around 65% own cattle. Many of the households who do not currently cultivate are returnees lacking immediate access to land. Non-farming households in urban areas mainly operate shops and restaurants. About 79 percent of the total household consumption is spent on food (81% in rural and 69% in urban areas)<sup>1</sup>.

It will essentially require transformation of farm operations which are mostly undertaken manually, using a small range of rudimentary tools and implements. Despite abundant land resources, manual land preparation has limited cultivated area per household to less than 2 feddans and using traditional low yielding seeds with minimum application of fertilisers. Women provide the bulk of the farm labour. Rain-fed mechanized sector is confined mostly to Upper Nile counties, but also includes some relatively small areas in Unity State. Households engaged in mechanized farming cultivate larger areas and sell their products to markets in North Sudan. Animal traction has been promoted in some states but lack of spare parts and skills to maintain the mould-board ploughs and cultural barriers have hindered progress. Irrigated agriculture accounts for less than 5% of the total cultivated area.

Given the dominance of agriculture in employment, livelihood and household consumption, a broad based economic growth in South Sudan must be based on accelerating food and agricultural productivity and production. Promoting agricultural and rural development is crucial to pro-poor growth, particularly in situations where the bulk of the population is dependent on farming. Learning from China, India and Vietnam, rapid agricultural growth is regarded as the precursor to the rise of industry and services. Agriculture-led growth induces strong growth in service sectors such as transport, processing, finance and trade through multiplier effects. Within the context of South Sudan, agricultural GDP growth is certainly twice or more as effective as in reducing poverty as GDP growth originating from outside agriculture. Agricultural growth based on productivity improvement is also a necessary condition for food security.

### 2.1 Opportunities

The national, regional and international markets provide considerable opportunities for South Sudanese farmers. A large volume of the agricultural produce and products sold in urban areas are currently imported from Uganda, Kenya and Sudan. Given the opportunity to develop and improve productivity, food and agricultural producers and processors of South Sudan can capture not only local markets but also regional markets. With rapidly expanding demand in the Middle East, Asia (e.g.

<sup>&</sup>lt;sup>1</sup>National Baseline Household Survey (NBHS) 2009; and FAO/WFP Crop and Food Security Assessment Mission Jan-2011.

China and India), South Sudan has the natural resource potentials to supply food and agricultural products to international markets as well.

Peaceful transition and favourable macro-economic environments are among the major opportunities for successful agricultural development in South Sudan. Now being an independence country, the macro-economic environment for agricultural development has become favourable. The SPLM, which is the main ruling party in South Sudan, critically reviewed agriculture in 2010 and renewed its commitment to improve the sectors of agriculture, forestry, livestock and fisheries in order to achieve food security through transforming the subsistence agriculture system to a surplus production system well connected to markets and guarantee households access to food. The ruling party has also agreed to immediate allocation of at least 10% of the oil revenue for agriculture, forestry, fisheries and livestock development. In line with the SPLM's vision, the Government of the Republic of South Sudan (RSS) is committed to the "establish an effective, democratic, participatory and accountable government that will empower civil society to become productive and the driving force in development". Following such political will, the Ministry of Agriculture Forestry, Cooperatives and Rural Development (MAFC&RD) shall focus to create an enabling and facilitating environment to rehabilitate, stabilize, and transform South Sudanese agriculture. The global scenario with escalating food prices should be taken as an opportunity to reap the benefits from a "hungry world" given that the country has ample arable land for crop and livestock production.

Goodwill and support of many bilateral and international donors as well as regional and continental cooperation and initiatives have allowed the RSS to consolidate the peace and stabilize the region for sustainable agricultural development and growth. Working in partnership with donors and other development partners, the MAFC&RD has implemented a number of projects aimed at building institutions, developing human capacity, and improving food security. The Republic of South Sudan (RSS) is also consolidating its relationship with neighbouring countries and other African countries.

MAFC&RD shall make an effort to involve and work with relevant regional organizations and initiatives, including the East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA), the Comprehensive Africa Agriculture Development Program (CAADP) of the African Union and the New Partnership for Africa's Development (NEPAD) or the NEPAD Coordinating and Planning Agency (NCPA). In particular, CAADP's goal of eliminating hunger and reducing poverty by improving agriculture across the African continent is consistent with the goals of MAFC&RD. MAFC&RD's agricultural policy and strategy will incorporate the four pillars of CAADP, namely (i) Land and water management; (ii) Market access; (iii) Food supply and hunger; and (iv) Agricultural research) designed to improve agricultural productivity and growth. There is also an opportunity to take advantage of global funds that encourage forest conservation and minimum emission of carbon dioxide in the production processes as part of climate change mitigation measures and ensuring green economic growth. Programmes such as that

on Reducing Emissions, Degradation and Deforestation (REDD) offer some immediate window for rewarding community which opt to conserve forests.

## 2.2 Constraints and Challenges to Agricultural Growth and Development

### a) Main constraints

Agriculture development efforts in South Sudan face major impediments. Among the supply-side major constraints are:

- i. Weak institutions, coupled with poor public investments in the agricultural sector, undermine agricultural development.
- ii. A fragile land tenure system has caused a misuse and erosion of natural resource, and escalation of conflicts. Poor land use planning has also led to wanton destruction of forest cover as population increases
- iii. Poor rural physical infrastructure and rudimentary markets with limited access hinder agricultural growth.
- iv. Unfavourable weather conditions such as persistent drought and annual flooding lead to crop losses and, together with conflicts, communal violence and intra-ethnic clashes, cause loss of rural livelihoods and widespread displacement of people.
- v. Poor soil management practices leading to land degradation and poor fertility levels
- vi. Low usage of fertilizers, improved seeds and other productivity enhancing technologies, combined with poor management and skills
- vii. Poorly organised rural communities, with minimum empowerment in terms of knowledge, skills and financial resources.

On the other hand, there are demand-side constraints, which also frustrate the development of the agricultural sector. These include, but not limited to:

- i. Weak linkage between the rural areas where production takes place, and urban centres where demand for the produced goods exists, occasioned by a combination of factors: poor transport network, rural financing, lack of food preservation, processing and packaging facilities, which results in huge seasonal wastage at harvest time, especially for perishable goods
- ii. Lack of institutional framework for stabilisation of both producer and consumer prices so as to protect producers in years of excessive production and consumers to sustain consumption when retails prices rise beyond their normal purchasing power
- iii. Low income levels of urban dwellers, who constitute the main market for surpluses produced in rural areas
- iv. Tariff and Non-Tariff barriers for exportation of agricultural produce, which includes restrictive entry value-added goods to high paying markets in Europe and America.

### b) Main challenges

Among the principal challenges are:

- i. Increasing productivity and incomes of South Sudan's producers by improving the technology of production, providing support services, improving the policy and institutional environment.
- ii. Enhancing the incomes of urban dwellers so that they can provide a competitive market for the agricultural produce
- iii. Establishing a pluralistic and participatory extension system with the aim of developing demand driven and competitive services.
- iv. Building a pluralistic research and development system with an active involvement of farmers in setting research agenda and monitoring/ evaluation of findings and results.
- v. Fostering market-oriented production by addressing the problems of missing markets, diversifying crop enterprises to include higher value cash crops, and linking farmers to national, regional and international markets.
- vi. Overcoming the 'Dutch' disease effects of oil-exporting, i.e. a higher exchange earnings strengthen the exchange rate to such a degree that traditional exports such as agricultural cash and food crops become less competitive in local, regional and international markets.
- vii. Building institutional and human capacity to provide effective policy and strategic guidance to agricultural development
- viii. Creating an environment conducive to development that recognizes and outlines the roles of the Public and Private sectors in providing agricultural services and input delivery services, in an effective and sustainable manner.
- ix. Creating an enabling environment for the private sector to invest more in agro-processing and value addition
- x. Establishing a viable rural financial services to support agricultural production and productivity enhancement and processing
- xi. Contributing to the attainment of food and nutrition security for all South Sudanese primarily through increasing food availability and reducing the real cost of food for net buyers of food.
- xii. Developing appropriate mechanization policies and programs to overcome labour shortages while ensuring that agricultural development remains pro-poor.

### 2.3 Problem statement

Following the establishment of the Ministry of Agriculture, Forestry, Cooperatives and Rural Development in October 2005, the Food and Agriculture Policy Framework was formulated to guide the development of the sector for the period 2007-11. Among the main goals of the Framework 2007-11 were to achieve food self-

sufficiency by 2011 and reduce the incidence of poverty by 30% in 2011. Achieving these goals entails a sustained increase in production and productivity. Statistical evidences, however, show that the performance of the cereal sector, for instance, has been mixed. Production increased sharply in 2008 but decreased almost by the same rate in 2009 most likely due to bad weather. Cereal yields have declined to less than 0.64 ton/ha in 2009 and 0.75 in 2010 compared to 1.01 and 1.25 ton/ ha in 2007 and 2008, respectively. Most parts of the country were reported to be food insecure in 2011 due to poor rainfall and pest damage (e.g. Central Equatoria and Eastern Equatoria states) and disruptions due to conflicts (e.g. Northern Bahr El Ghazal and Western Bahr El Ghazal and Unity states). According to the FAO/WFP's 2011assessment, the 2010/2011 cereal food balance sheet was positive in only one state (Western Equatoria), with an estimated cereal surplus of 24,179 tons. The combined cereal deficit of the other 9 states was estimated at 315,171 tons. Much of the deficit is covered by food aid, government purchase and commercial import from neighbouring countries such as Uganda. Prices are very high and volatile due to high transport and transaction costs.

The food deficit in South Sudan is generally structural and stems from a conjunction of: (i) low agricultural productivity; (ii) poor state of infrastructure; (iii) the lost productivity ensuing from incessant conflict; (iv) inadequate provision of agricultural services; (v) weak institutions and lack of policies and regulations; (vi) inadequately skilled human resources; (vii) irrational use of natural resources; (viii) poorly organised rural communities; and (ix) absence of an appropriate land tenure system and land law. Grain prices in the first months of 2011 were above their four-year average (2007-2010) and higher than those registered in most markets in 2010. A more concerted effort is required to achieve the goals of food self-sufficiency and reduced poverty levels. This agricultural sector policy framework for 2012-2017 is formulated with the goal of increasing production and productivity on a sustainable basis by addressing key constraints in food and agricultural production, marketing, distribution and value addition. An Agriculture Policy Implementation Strategy (APIS) as well as various development programs, including value chain development programs, and intervention projects will be developed to implement ASPF at national and state levels. This revised policy framework, was initially prepared by FAO in 2010 as Food and Agricultural Policy Framework (FAPF) for 2011-2016, but was later modified in 2012 as an overarching Agricultural Sector Policy Framework (ASPF). The framework sets the general tone on how the sector should be managed to realise the overall objectives of ensuring food self sufficiency and agro-industrial development. It also includes some additional aspects based on emerging issues such as bio-fuels, carbon trade, and green agriculture as a contribution to climate change mitigation measures.

### 3. Vision, Mission and Objectives of MAFC&RD

### 3.1 Development Pillar

According to the Economic Development Pillar of the SSDP, the country has abundant land, relatively reliable rainfall, youthful labour situation but highly constrained skills, productivity and investment levels. With such endowment, the

greatest potential for initial new growth is expected to come from the small scale private, predominantly agriculture and livestock sectors. The Plan further states that the impediments to agricultural growth can be significantly reduced or removed through rapidly boosting human capacity, particularly around economic literacy and numeracy and modern farming and livestock production methods, and improving access to inputs, basic farming tools and markets. The Ministry of Agriculture, Forestry, Cooperatives and Rural Development is given the mandate to develop agriculture by ensuring that an effective organizational structure is put in place and is manned by staff capable of planning, coordinating, implementing, monitoring and evaluating agricultural development programs from time to time. The mandates to promote livestock and fisheries sub-sectors towards food security and income generation to our people is vested in a sister Ministry of Animal Resources and Fisheries, which has also developed respective policies. MAFC&RD will also ensure that its staff and the farmers are trained to make sure that agricultural problems that impede production are properly investigated and lasting solutions found.

### 3.2 Our Vision

Food security for all the people of the Republic of South Sudan, enjoying improved quality of life and environment

### 3.3 Our Mission

To create an enabling environment for the transformation of agriculture from a subsistence system into a modern, socially and economically sustainable system through science-based, market-oriented, competitive and profitable farming while maintaining the integrity of the natural resource base for the benefit of future generations of South Sudanese people.

### 3.4 Our Goal

Increased agricultural productivity to improve food security and contribute to economic growth.

### 3.5 Key Policy Choices and Objectives

By the end of the strategic plan for period (2017), which will be prepared to implement this policy document, the agriculture sector will achieve the following targets:

- Average annual increase of more than 5 percent for roots and tubers, more than 10 percent for cereals and more than 15 percent for horticultural crops.
- Contribute to reduction of rural poverty to 27 percent from the baseline levels of 55.4%<sup>2</sup> in 2010; and reduce the number of people living below poverty line by half come 2017.

<sup>2</sup> According to SSCCSE, 55.4% of the rural population was found to fall below the poverty line in 2010. (SSCCSE, Poverty in South Sudan, March 2010).

Page 15

In order to achieve the above targets and lay the foundation for achieving the goal of a revitalized agriculture that contributes to shared, inclusive and sustainable economic development, the following key issues and objectives will shape the Agriculture Sector Policy Framework (ASPF).

### i. Accelerate food and agricultural production while ensuring that the growth is pro-poor, sustainable and contribute to food and nutrition security

### a. Smallholder and commercial agriculture

The ASPF will support small holders and their organizations in increasing their secure access to land and water, enhancing access to technologies and knowledge to boost both labour and land productivity, and improving their access to markets and finance. Particular attention will be given to gender equality and women's empowerment. While not in favour of a dual agricultural economy with a well-developed agriculture and a predominantly subsistence sector, the policy supports commercial farms that generate foreign exchange, provide decent employment for the rural poor, earn fiscal revenues for the government and operate in partnership with smallholders. Given that both smallholder and commercial farms are currently contributing to national production, the policy would find ways to strengthen the synergy between the two groups through contract farming, out-grower schemes and other arrangements.

### b. Expansion and intensification

Given abundant land resources, the ASPF will support extensive agriculture, i.e. increasing production by extending area under cultivation while maintaining or reducing aggregate input (e.g. commercial fertilizer) levels per unit area, in the short term. However, expansion of agricultural land into hitherto uncultivated land can be the principal cause of deforestation and possibly soil degradation. In the medium and long term, the policy will therefore support agricultural intensification or increasing production per unit area through more intensive production practices. At present, commercial fertilizers are rarely applied in South Sudan and soil fertility is maintained by applying manure or leaving land fallow for several years. Most farmers don't use improved seeds and rarely use integrated approaches to pest control and management, which result in huge onfarm and post-harvest crop losses. MAFC&RD will ensure that these are addressed in an environmentally sound and sustainable ways.

### c. Mechanization and employment generation

Mechanized farming is very limited and it is practiced mainly in the Upper Nile counties of Renk, Melut and Wadakona and to a limited extent in Malakal, and Bentiu in Unity State. Since 2005, the Government of South Sudan (RSS) has distributed to the states over 400 tractors to foster mechanization; however, lack of skills and limited infrastructures on the ground, has hampered the capacity to

maintain and effectively utilize them. Hand tools, the predominant mode of production in South Sudan, have constrained the size of land households can cultivate. Productivity and returns to farming based on hand tools are also low, discouraging returnees and the youth to see farming as source of remunerative employment. This policy will support access to improved mechanized services (including animal traction) in order to encourage individuals to go back to farming, enhance pro-poor agricultural employment and ensure food security of the farming community. Appropriate mechanization would also allow a significant increase in production, which is a major factor in stimulating processing.

### d. Foreign direct investment (FDI) in agriculture

Large-scale acquisitions of farmland by foreign investors have increasingly become a major issue in agriculture. Food security concerns, particularly in investor countries, are key driver of government backed investment. Global demand for bio fuels and other non-food agricultural commodities, expectations of rising rates of return in agriculture and land values, and policy measures in home and host countries are also important considerations. Receiving countries are expected to benefit from increased employment opportunities, improved food availability, and technology transfer. The ASPF will encourage foreign investment that is socially and politically acceptable and economically durable.

### ii. Improve agricultural markets and trade through investing in market infrastructure and institutions, and developing value chains

### a. Local, regional and international markets

Farming households are bound to produce mainly for home consumption when faced with missing or underdeveloped markets and high marketing costs. Private sector investment in agriculture will also be discouraged if market infrastructure and institutions are inadequate. The ASPF will support and promote investment linking farmers to national, regional and international markets and better prices for producers that will eventually increase supply and result in lower prices for consumers. Support to the development and rehabilitation of roads, bridges and railway networks as well as river transportation to improve farmers' connections to markets is also identified as a priority in the South Sudan Development Plan to increase agricultural production and food security.

### b. Agribusinesses and value addition

Farmers cannot be effectively linked to markets without agribusinesses that respond to their demand for inputs and ensure access to domestic and regional markets for produce. The policy will support and promote agribusinesses to supply inputs, and link the sector to consumers through the handling, processing, transportation, marketing, and distribution of food and other agricultural products.

### c. Production, marketing and price risks

The production and marketing of food and agricultural production is faced with high level of risks. In South Sudan, production is riddled with the risks of drought, flood, and pests and diseases that negatively affect production levels and lead to significant losses. In addition, there are marketing and price risks that farmers have to deal with. The ASPF will support different market and government based options, including product diversification, crop insurance, contract farming, price stabilization, and warehouse receipt systems.

### iii. Develop and enhance human and institutional capacity

### a. Human and institutional capacity of all stakeholders

Strong and efficient human and institutional capacities of the public sector, civil society organizations (CSOs) and the private sector will be built to carry out effective planning, service delivery, coordination and monitoring activities of the sector. Particular attention will be given to building the capacity of CSOs, community based organizations (CBOs) and business associations in the context of decentralization and empowerment of local communities. The government will undertake dialogues and consultations with all stakeholders in formulating regulatory policies, tax policies, investment incentives and labor laws.

### b. The role of government versus private sector

Agricultural markets and support services are not expected to perform efficiently in South Sudan as physical infrastructure and institutional arrangements are inadequate, resulting in serious coordination and market failures. High risks of coordination failure, coupled with high transport and transaction costs, do not encourage complementary and simultaneous investment by input suppliers, production service providers, transporters, traders, financiers and farmers. The Government will pursue a policy of public-private partnership and promote private sector, while investing in public good such as R&D, strategic direction, coordination, oversight, regulation, and monitoring and evaluation.

### iv. Pursue agricultural growth with social development

The enjoyment of the right to food, poverty alleviation and equitable growth are among the major objectives of agricultural growth and development. Farming activities are expected to be the main sources of employment for disadvantaged groups. The ASPF will ensure that agricultural growth meets food and nutrition security needs, and generates remunerative employment for women, youth and

returnees. Furthermore, the realization of the MDG1 goal of eradicating extreme poverty and hunger is heavily dependent upon the growth of the agricultural sector, given its dominant share in providing employment and the overall economy. Reducing the proportion of population earning below \$1 per person per day and the proportion of people who suffer from hunger by half in 2015 (compared to 1990) is thus taken into account when setting sectoral and subsectoral targets. Agriculture will also contribute to MDG7 of ensuring environmental sustainability.

### 3.2 Guiding principles

The implementation of the ASPF will be guided by the following principles:

### 3.2.1 Decentralization and empowerment:

A top-down approach or imposition of policies and programs by higher authorities is not favourable as a strategy of fostering sustainable development. The government is therefore committed to a decentralized service delivery and participatory development in which all stakeholders are involved in decisions affecting rural and agricultural development. The primary responsibility of implementing the ASPF will lie with the states and counties while institutions at national level handle largely regulatory activities and overall policy directions.

### 3.2.2 Pluralistic Extension Approach driven by communities

Rural communities will be given a voice in the planning and implementation of research, extension, training and other schemes meant to help them. A pluralistic approach, in which agricultural innovations and extension services are derived from several sources, will be promoted.

### 3.2.3 Promotion of Public-Private Partnership

Government will encourage and motivate the private sector to complement its efforts in offering critical services to the agriculture such as extension services, construction of warehouses, and access roads surrounding commercial farms.

### 3.2.4 Government as a Facilitator to Stimulating Rural Development

The government will actively be involved as development facilitator and will engage in the establishment of projects for demonstration and learning purposes as well as creating platforms for effective public-private partnership.

### 3.2.5 Cooperatives and Farmer groups

One of the cost effective ways of reaching and interacting with people in the sparsely populated areas include mobilization through farmer groups with common interest, associations and cooperatives. Through such grassroots institutional arrangements it can be easy to provide extension services (e.g. farmer field schools) and mobilize savings and provide credit (e.g. savings and credit cooperative societies (SACCOS).

### 3.2.6 Promoting value addition and agro-processing

Concerted multi-stakeholder efforts will be directed in promoting value addition and the establishment of agro-processing industries as a means of generating jobs in addition to offering better quality and prices to consumers and primary producers.

### 3.2.7 Strengthening of rural infrastructure for roads, electricity and water

This will be key to ensuring that there is least hindrance to market operations for input distribution and purchases of farm products; as well as processing within or near villages as a result of availability of electricity.

### 3.2.8 Macro-economic stability:

A policy of low inflation, stable exchange rates and favorable trade and market environment will be pursued to ensure that investment in agriculture is profitable and attractive. Good governance, peace and security and fair distribution of income are also important in anchoring stable expectations and attract inflows of foreign direct investment in agribusinesses. These are the RSS areas of emphasis and will be adhered to judiciously.

### 3.2.9 Conducive Marketing Policies:

Policies conducive enough for the operations of the private sector to invest in the sector are essential in attracting and rewarding efforts by producers, processors, transporters, traders and exporters. The policy embraces active participation of the private sector in the development of agriculture in the County.

### 3.2.10 Sustainable development management:

Sustainable farming practices will be supported and encouraged while forest areas are protected. Water resources of the country will be developed and utilized in an efficient and sustainable manner. Ensuring food security and improving livelihoods and income generation through sustainable use of natural resources and land management is also the sector objective of natural resources in the South Sudan Development Plan (Economic Development Pillar Chapter).

### 4.0 Sub-sector Polices

### **Summary of the Sub-sector Policies**

### 4.1 Policies on Crops Sub-Sector

Food crops double as nutritional sources for households but also as sources of cash crops when sold. Despite the enormous production potentials, South Sudan cannot feed itself. In 2011, the overall cereal deficit was estimated at 291,000 tons, nearly 30% of the total consumption. The estimated cereal deficit was estimated to increase to 339,000 tons with the return of 400,000 people following the referendum. The Ministry undertakes to "enhance farm productivity and postharvest management of cereals to satisfy domestic demand and export requirements". The implementation framework will entail the design of value chain development programmes for major cereals (sorghum, maize, and rice), pulses and oilseeds. There will also be Cassava Value Chain Development Program as among the flagship projects. In order to improve horticulture production and export, there will be a special development programme for Fruits and Vegetables under the National Horticultural Development Authority. In order to promote production of cash crops such as cotton, coffee, tea, sugar and palm oil, irrigated farming will be encouraged and improved seeds introduced through the Cash Crop Development Program, which will also invest in Research and Development (R&D) and improvement in the overall infrastructure supporting the sector.

### 4.2 Policies on Agricultural Production Support Services

### 4.2.1 Extension Services and Agricultural Education Training

One of the major focal areas of ASPF is improvement of the efficiency and quality of supporting services to smallholders, commercial farmers, processors, and agribusiness operators. A well functioning extension system is necessary in order to have effective transfer of technology and know-how for the adoption of farmers. The Ministry therefore undertakes to "promote an effective extension services system as provided by multiple providers at the State, County, Payam and Boma levels by ensuring extension agents are well trained and capacitated to undertake their responsibilities of technology transfer for adoption by extension clientele". This will be implemented through the implementation of Agricultural Extension Improvement Program, to be designed, which will also involve the establishment of Agricultural Service Centres and promotion of a multi-stakeholder approach, otherwise known as pluralistic agricultural advisory service provision, to be jointly delivered by government, private investors, CSOs and NGOs.

Agricultural education and training will also be needed to bridge the gaps in knowledge and skills in the sector so as to produce a critical mass of educated, well-trained men and women working in the sector. The Ministry will therefore expand and strengthen the country's extension training facilities to ensure highly quality extension personnel are trained in adequate numbers and deployed to different

parts and levels of the country. Sectoral Capacity Building and Training Policy will be adopted, which will focus, among other initiatives, on the re-establishment of Farmer Training Centres (FTCs), rehabilitation of government training institutes, and linking with local, regional and international universities to offer practical and relevant post-graduate training in agricultural disciplines.

### 4.2.2 Cooperative Development

Cooperatives have historically been part of economic organizational framework among workers and rural dwellers. In mid 2011, there were about 241 registered cooperative societies, indicating that there is still a huge scope to expand the movement. The government will therefore strive to "Promote a vibrant and well coordinated and capacitated cooperative sector as a critical catalyst of economic activities by the communities". The operationalisation of the already approved Cooperative Development Strategy will be, among other things, to focus on the establishment of umbrella organizations for cooperative societies, community-based organizations (CBOs) and common interest groups (CIGs), introduction of a school curriculum on cooperatives in schools; adoption of regulations for financial cooperatives; establishment of a Cooperative College on its own premises; and strengthened coordination capability of the Directorates of Cooperatives and Rural Development. The strategy will also focus on the promotion of urban and rural financial services; promotion of warehouse receipt system; and adaptation of the existing public-private partnership (PPP) framework for encouraging cooperatives and private sector investors to engage in value addition of farm outputs.

### 4.2.3 Rural and Community Development

As at February 2012, there were 34 registered Community-Based Organisations (CBOs) in 5 out of the 10 states. If well organized, they are a formidable force to complement development resources provided by central, state or country governments. The government undertakes to "empower communities and their leaders to effectively participate in undertaking sustainable development initiatives with the support of government" as part of the strategy to implement Community Development Policy prepared in 2011. This will involve the revival of Amadi Rural Development Institute and updating training existing curriculum to cover some emerging social and economic challenges facing the youth in rural and urban areas. A special fund for rural community active engagement in economic development projects will also be established. There will also be a capacity development programmes for government officers and community leaders.

### 4.2.4 Agricultural Research

In order to address the lack of a comprehensive and coordinated crop breeding program for generating improved seed varieties and tree species, the government commits to "establish a well coordinated and functioning national agricultural research system backed by a well funded institutional framework and effective capacity building and legal systems for its efficient operation". This will entail

establishment of the South Sudan Agriculture Research Organization (SSARO) through the stewardship of the South Sudan Research Council (SSRC) and the creation of a National Agricultural Research System (NARS) under the coordination of SSARO. An Agricultural Research Rehabilitation and Support Program will address major weaknesses in national research capacities, improving applied research and linkage with extension, as well as building germplasm databank for the Country.

### 4.2.5 Plant Genetic Resources Conservation

The Ministry will also prepare a policy on genetically modified organisms (GMOs), which include genetically modified seeds and other planting material, including animal species with the twin purpose of taking advantage of the positive aspects of the technology and protecting the country's landraces as well as ensuring bio-safety. A special unit will be created to pioneer, among other things, the establishment of a "Plant Genetic Resource Centre" and introduction of laws and protocols for the importation and use of GMOs in the country. The unit will create awareness on plant genetic resources and also promote "in-situ" and community conservation and management of plant genetic resources.

### 4.2.6 Access to Land, Tenure Security and Land Use

Land is a core natural resource essential for the development of South Sudan. The need to ensure that land is surveyed and titled to individuals is seen as an important component of taking land as an asset for attracting investments through the banking system. The Ministry will work closely with the South Sudan Land Commission to prepare a comprehensive land classification and land use map as a tool for strengthening land sector administration and enforcement of land use plans according to the land policy and Land Act of 2009. It will strengthen land administration system in both statutory and customary land and discourage land grabbing and illegal occupation of land reserved for public facilities..

### 4.2.7 Water Resources Development and Irrigation

Much of the vulnerability to food insecurity in South Sudan can be attributed to rainfall variability, with irrigation agriculture accounting for less than 5% of the total cultivated area. MAFC&RDC&RD will collaborate with the Ministry for Water Resources and Irrigation to "promote sustainable irrigation infrastructure and flood management system to contribute to improved agricultural productivity and food security enhancement". This will entail developing small-scale water control system, rehabilitating large-scale irrigation systems, developing large-scale schemes under the National Irrigation, Drainage Policy and Strategy (NIDPS). The strategy will support, among other interventions, establishment of water users association where women are actively engaged, promotion of water harvesting technique in arid and semi-arid areas for boosting irrigation agriculture; and the formation of River Basin Management Comittees and Authorities.

### 4.2.8 Fertilizer Distribution

The low rate of fertilizer use in South Sudan, currently estimated at only 4 kg per hectare (2%), compared to FAO recommended rate of 200 kg, has contributed to low crop productivity. The government will undertake to "establish a well functioning fertilizer importation, storage and distribution system for enhancing agricultural productivity" as part of the South Sudan Fertilizer Policy. This will entail establishment of South Sudan Fertilizer Commission, which will oversee the establishment of soil fertility testing laboratories in strategic locations; offer advice on the operation of a targeted fertiliser subsidy program without undermining private sector initiatives; as well as assist larger private companies to import and distribute fertilizer and other chemicals according to market demands. The formation of a Fertilizer Development Consultative Forum will help to promote, among others, the establishment of a vibrant fertilizer trade in the country.

### 4.2.9 Seed Multiplication, Certification and Distribution

The government undertakes to reverse the current situation where the majority of farmers solely use indigenous seed stock, whose yield levels, even under best husbandry practices, are low compared to hybrid and other improved seeds. The Government will implement the South Sudan Seed Policy, which seeks to "ensure an established and well functioning formal support system for the production, certification, storage and distribution of improved seeds and planting material, with the support of communities for multiplication and building of the same so that most farmers use improved and/or certified seed stocks". This will entail, among other things, establishment of the South Sudan Seed Council (SS-SC) and the South Sudan Board for Seed Testing (SS-BST); as well as implementing "Planting Materials Supply Program" to support farmer organizations, private sector and NGOs to produce and distribute improved seeds of staple food crops.

## **4.2.10** Plant Protection Using Integrated Pest and Disease Management

Proper control and management of diseases and pests on farm and post-harvest can save more than 35 percent of the potential crop loss. As part of the Plant Protection Policy, the Ministry will establish an institutional framework for promotion of sustainable crop pest and disease management and ensuring accessibility of organic and inorganic pesticides by farmers. This will entail, among other initiatives, the formation of South Sudan Plant Protection Authority and facilitate the formation of a forum for plant protection agro-chemical dealers as well as encourage the adoption of organic farming and integrated pest management practices.

### 4.2.11 Agricultural Mechanization

Agricultural mechanization is needed to improve efficiency and effectiveness of farm operations, more now as the youth, who are the most energetic segment of the

population, are migrating away from rural areas. The Ministry will implement a Mechanisation Policy, which seeks to "enhance farm mechanization using appropriate technologies and backup services to support farmers adopting farm mechanization". Implementation of the policy will include the creation of South Sudan Agricultural Mechanization Corporation, facilitation of the private sector, cooperatives and other farmer organizations to provide mechanization services; establishment of work-oxen training and extension program; and supporting training centres for farm machinery operators and mechanics to ensure sustained functioning and maintenance of farm machineries.

# 4.3 Policies In Support Of Agricultural Markets, Value Chain Development And Finance

### 4.3.1 Agricultural Markets and Agribusiness

Properly functioning agricultural markets for both inputs and produce is key to the success of commercial farming and development of agri-business. The government will therefore "support the establishment of a well functioning sector and output marketing system driven by commercial interests by cooperatives and private sector operators to ensure that producers have reliable supplies for their inputs and competitive markets for their produce both domestically and internationally". This will involve the implementation of South Sudan Agricultural Market ,Agribusinessand External Trade Development Programmes, which will address, among others, capacity building of stakeholders, support rehabilitation of infrastructure for markets, transport and storage; and development of quality products for domestic and export markets. A marketing information system (MIS) will be established as well as promoting partnership between agribusiness and smallholder organizations, both of whom will be encouraged to join East African Community-based and other international networks with a view to encourage formal cross-border trade.

### 4.3.2 Rural Financial Services

Access to finance has been a major bottleneck for smallholders as well as diverse operators in the value chain, including, input dealers/suppliers, processors, transporters, storage/inventory warehousing operators and distributors. The government will undertake to "enhanced facilitation to the growth of banking and non-banking financial services, including rural finance, for expanded financing of agricultural and rural sector development in production, processing, storage and marketing". Among the required interventions will be strengthening of the Agricultural Development Bank, Cooperative Bank, review of banking regulations and related legislations to encourage the growth of commercial banking in enhancing agricultural development and establishment of credit guaranteed funds for rural credit as an inducement to increase lending to agriculture. Moreover, the formation and expansion of membership-based financial organizations, microfinance institutions and rural banks will be deliberately promoted.

### 4.3.3 Agricultural Insurance Schemes and Early Warning Systems

Experiencing total crop or livestock loss is a common phenomenon among farmers, usually adding to occasional losses from inter-ethnic conflicts and cattle rustling. In order to address natural disasters, the government will institute policies that promote the establishment of weather-based crop insurance system and operation of an early warning system on possible flood occurence, droughts and pests outbreaks. It will also seek to establish a "Calamities Fund" with the objective of compensating families affected by natural and man-made disasters.

### 4.4 Policies On Food Security And Nutrition

Food insecurity has been endemic, mainly caused by the low levels of farm productivity and lack of alternative viable income earning opportunities. The government will "implement strategies meant to increase farm productivity, conserve post-harvested stocks, diversify household income and permit access to marketed stocks so as to ensure food security for all households all year round". The already existing National Food Security Action Plan, NAFSAP (2008 – 2011), will be updated, together with preparing a Safety Net Strategy. Other initiatives will include the establishment of a National Food Strategic Reserve Fund and a system for food price stabilisation. Since international relief agencies are actively involved in food security initiatives, an agreement will be reached to ensure that their operations don't destabilise long term plans for food self sufficiency. In order to ensure food nutritional security, the government will put in place policies that facilitate the use of acceptable methods in food handling and diet planning to enhance the nutritional value and balanced food intake by the population.

### 4.5 Policies On Forestry Development And Management

Forests conservation plays a crucial role in watershed stability, livelihood support, sustainable agricultural production and mitigation of climate change. However, there is still low level of knowledge and skills in forestry, management, conservation and utilization compromise forestry development initiatives by Government and other partners. There are also opportunities to facilitate forest sector and industrial development based on the abundant forest resources. The Ministry will implement a Forestry Policy that will seek to establish a comprehensive institutional and legal framework for sustainable forestry management; involving multiple stakeholders under the facilitation of government and states under the auspices of the South Sudan Forest Corporation (SSFC). The National Forest Development Fund (NDF) will be used as an instrument for mobilization and enhancement of resources for sustainable forest development. A Forestry Development Consultative Forum will also be established as part of participatory institutional arrangement for involvement of local communities and other stakeholders in the protection and management of forests.

### 4.6 Policies On Role Of Agriculture And Forestry To Economic Change And Social Justice

The youth, who constitutes about two-thirds of the population, represent a huge reserve of untapped labour resource needed to boost agriculture production, enhance food security and create massive wealth. The government will implement strategies with instruments to attract and empower youth to remain in the rural areas and engage in production and value addition. This will entail enhanced access to credit, land, and technology and market information for the youth and the establishment of a special fund to provide start-up capital and incubator projects for youth interested in agriculture, value addition and marketing. In order to ensure that women benefit from the benefits of agricultural growth, the government will implement gender empowerment programmes in agricultural sector and influence the same in other spheres of the society, which include providing support to the implementation of Rural Women Empowerment Program to enhance women's ability to create wealth, access to resources and information.

Given the historical circumstance of the country there are some internally displaced people that require special attention as vulnerable groups. The government will establish a social welfare safety net for vulnerable groups in rural areas through an Agricultural Support Program to resettle and reintegrate exiled returnees, excombatants and the elderly above 60 years of age in rural areas. There will also be targeted input subsidy and other production-based entitlement programs for the poorest and most vulnerable. Equally important there will be programmes to promote holistic interventions at the household and farming systems through technological innovations and livelihoods support interventions designed to benefit people living with HIV/AIDS.

## 4.7 Policies On Sustainable Agriculture, Environment And Climate Change

South Sudan is heavily dependent on rain-fed agriculture and has limited institutional and infrastructural capacities to cope with natural climate variability, recently amplified by the effects of climate change. The Ministry of Agriculture, Forestry, Cooperatives and Rural Development will therefore support policy measures meant to mitigate the adverse effects and impacts from climate change in the medium and long-term through National Adaptation Program of Action (NAPA) in collaboration with the Ministry of Environment. This will involve MAFC&RD's researchers developing diversified crops adapted to extreme climate conditions.

In appreciation of the role South Sudan has to the global community to safeguard the environment and reduce harmful gaseous emissions, the Ministry will design policies and strategies to tap on global initiatives that promote green growth using, for example, organic farming. This will include financial support from the Climate Investment Funds, among others.

### 4.8 Policy On Coordination And Monitoring And Evaluation (M&E)

A broad-based and inclusive agricultural development heavily depends on sectors that are outside the mandates of MAFC&RD such as those related to animal resources and fisheries, irrigation and water resources, environment, as well as commerce and industry, roads and transport who will contribute in setting verifiable and monitorable progress indicators based on a comprehensive Monitoring and Evaluation Framework and System established and implemented under the coordination of MAFC&RD. The Ministry will therefore use existing and newly initiated mechanisms for coordinating and ensuring that the needs of the agricultural sector are given priority by these other related sectors. An Inter- Ministerial Committee will therefore oversee the implementation of Agricultural Sector Policy Framework.

### 4.9 Other Key Policies On The Wider Agricultural Sector

MAFC&RD appreciates that there are several other key policies that must be developed and implemented as part of a sector wide and holistic approach to the development of the agriculture sector such as fisheries and livestock development policies and strategies. Additional policy documents to be developed by MAFC&RD include those on rural finance and agricultural marketing.

### **DETAILED POLICY RECOMMENDATION**

### 5.0 Policies on Crops Sub-sector

Crops are sub-divided into two main groups: traditionally termed as food crops, which consist of cereals and tubers, although they are also increasingly becoming sources of cash incomes; and traditional cash crops, most of which are non-food crops, such as coffee.

### 5.1 Food crops

Food crops double as nutritional sources for households but also as cash crops by selling surpluses. In some places, these crops offer the only source of cash income in the absence of traditional non-food cash crops. Food crops can be categorised into three groups: (a) cereals, pulses and oilseeds, (b) tubers, and (c) horticultural crops.

### 5.1.1 Cereals, pulses and oilseeds

### Context

Sorghum is the main crop cultivated in South Sudan and it is the main staple food in all States, except for the three Equatoria states where local diet is also based on maize flour (largely imported from Uganda) and cassava (mainly in the Green Belt). Sorghum is often intercropped with sesame, pigeon pea and millet in many areas. It is one of the most preferred crops particularly in drought prone areas. Sorghum

accounts for 26% of total Dietary Energy Supply (DES) (FAO 2005-2007), and as of 2004-2008, on average consumption per capita was 88 kg/yr. Rice has the potential to become one of the major production crops as the country has a lot of swampy areas. Maize is cultivated in the Equatoria states as a strategic food security crop. It is also grown in many areas, close to homesteads and often used for green consumption. Minor cereal crops such as bulrush millet, finger millet and upland rice are also cultivated in certain locations. Groundnut makes an important contribution to household diet and is a main cash crop in some areas. Beans and cowpeas are also intercropped with cereals and other crops in different parts of South Sudan.

Despite the enormous production potentials, South Sudan cannot feed itself. In 2011, the overall cereal deficit was estimated at 291,000 tons, nearly 30% of the total consumption.

#### **Problem Statement**

South Sudan has experienced perennial cereals deficit due to poor productivity occasioned by lack of production support services and inadequate markets

### **Policy Statement**

Enhance farm productivity and post harvest management of cereals to satisfy domestic demand and export requirements

### **Policy Objectives**

- i. Increase the level of cereal production to ensure self-sufficiency.
- ii. Ensure households have access to food through own production or effectively functioning markets.
- iii. Promote the production of sorghum and maize as important food security crops.
- iv. Achieve surplus production of sorghum and maize in the immediate future
- v. Ensure that pulses and oilseeds serve as important food and cash crops, in addition to their critical importance in the diversification and biodiversity agricultural production in South Sudan
- vi. Promote rice production as food and cash crop in most suitable areas of the country.

Promote processing and value addition

### **Implementation Framework**

- i. Given the dominant role of sorghum in the overall consumption and the rural economy, it will be necessary to design and implement Sorghum Value Chain Development Program with the objective of developing the production, marketing and processing of the crop in an integrated manner.
- ii. Since maize is an important food security crop, there will be need to design and implement a Maize Value Chain Development Program.

- iii. Designing and implementing Rice Value Chain Development Program in lowland areas (Warrap, Unity, Western Equatoria, Upper Nile) and upland rice in Western Equatoria.
- iv. Promotion of an integrated and comprehensive programs to increase the production of all other cereals as well as pulses and oilseeds

### **Area of Emphasis**

Establishment of Value Chain Development Programs for Maize and Rice

### 5.1.2 Roots and tubers

### Context

Cassava represents an important food safety net throughout South Sudan. Cassava is also traded in local markets in the form of tubers, dried cassava chips and cassava flour. Sweet potato and yam are also grown widely around homesteads. Roots and tubers have an important role to play as alternative sources of starch to the majority of population in South Sudan.

### **Problem Statement**

Pests and diseases such as cassava mosaic, brown cassava streak virus, inadequate production services and poor markets have constrained the production of roots and tubers.

### **Policy Statement**

Improve the productivity of tubers and root crops through improved disease and pest control services, extension services and marketing

### **Policy Objectives**

- i. Ensure that households have access to roots and tubers through own-production or effectively functioning markets
- ii. Because of its critical role as an important food security root crop, design and implement Cassava Value Chain Development Program.
- iii. Promote the production of roots and tubers as important food security crops

### **Implementation Framework**

- i. Designing and implementation of Cassava Value Chain Development Program
- ii. Promotion of an integrated program to increase the production of other root and tubers

### **Area of Emphasis**

Cassava Value Chain Development Program

### 5.1.3 Horticultural crops

**Context** 

Fruits and vegetables are grown under nearly all farming systems. The potential for growing bananas, mangoes, papayas, oranges, lemons, pineapples, onions, okra, tomatoes, eggplants, potatoes and cabbages is very high. Cultivation of fruits and vegetables allows for productive employment and pro-poor growth, especially for women, youth and vulnerable groups. Urban and peri-urban vegetable production is practiced on a limited scale, few taking advantage of the ready market in the urban centres.

### **Problem Statement**

Low production and poor marketing support has hindered horticulture development in South Sudan.

### **Policy Statement**

Improve the economic role of horticultural crops to people's livelihoods and export earnings through productivity and marketing improvements in all suitable parts of S. Sudan

### **Policy objectives**

- i. Achieve a sustainable increase in the production of fruits and vegetables for both domestic and export markets.
- ii. Ensure that households have access to fruits and vegetables through ownproduction or effectively functioning markets.
- iii. Ensure that consumption of fruits and vegetables increases thus contributing to balanced diets
- iv. Strengthen the Department of Horticulture

### **Implementation Framework**

- i. Designing and implementing a Fruits and Vegetables Development Program according to each agro-ecological zone.
- ii. Initiate the formation of a National Horticultural Development Authority
- iii. Establishing horticultural demonstration and multiplication centres in all states
- iv. Encouraging and promoting private investment in horticulture.
- v. Facilitate the formation of the a forum for marketing and trading of horticultural products for domestic and international markets
- vi. Establishing a system for improved infrastructure for storage and movement of horticultural crops

### **Areas of Emphasis**

- Fruits and Vegetables Development Program
- Establishment of South Sudan National Horticultural Authority (SSNHA)

### 5.2 Cash Crops

### Context

The major non-food cash crops, which are produced primarily for the domestic and export market share cotton, coffee, tea, sugar cane and palm oil. The

potential for growing long, medium and short-stable cotton under irrigation as well as rain-fed conditions is very high. Sesame production is believed to have increased rapidly in recent years. Coffee, tea and sugar cane are also produced, though only in small quantities.

### **Problem Statement**

Increased production of the traditional cash crops is hampered by limited Research and Development (R&D) support, inadequate production services, pests and diseases, poor marketing infrastructure, and lack of finance

### **Policy Statement**

Enhance the economic contribution from traditional cash crops through improved R&D support, extension services, finance and marketing infrastructure

### **Policy objectives**

- i. Promote production of cash crops
- ii. Increase the share of export crops in the total foreign exchange earnings from the current level of 0% to more than 10% by 2017
- iii. Employment creation
- iv. Contribute to the diversification of export earnings

### **Implementation Framework**

- i. Designing and implementing a Cash Crop Development Program
- ii. Implementing an integrated program to increase the production of other export crops like sunflower, jute, alfalfa, hibiscus, shea nut (lulu) and Gum Africa.

### **Area of Emphasis**

Designing and implementing a Cash Crop Development Program

### 6.0 Policies On Agricultural Production Support Services

### Focus of the policy

One of the major focal areas of ASPF is improvement of the efficiency and quality of supporting services to smallholders, commercial farmers, processors, and agribusiness operators. The current low level of productivity is caused by, among other factors, inadequate R&D services, lack of improved seeds, limited mechanization series, tenure insecurity, limited use of fertilizers, and limited use of

irrigation. Accelerating production and improving livelihood entail a wide range of policy initiatives and re-organization of agricultural support services.

### 6.1 Extension and advisory services

### **Context**

A well functioning extension system is necessary in order to have effective transfer of technology and know-how for the adoption of farmers. Extension agents provide a necessary linkage between research and farmers and also between the market and farmers and processors. Extension services are usually provided as a public good by government, although the private sector and NGOs have also been encouraged to invest in the system as part of a pluralistic extension system, using different approaches for message delivery. Although government has an established system for training extension agents, the number trained so far is too little to meet the demand such that the ratio of extension workers to farmers is far from adequate.

### **Problem Statement**

There is inadequate provision of quality extension and advisory services by government, private sector and non-governmental organisations (NGOs), whose approaches and choice of messages are also not well harmonised. The extension agents are not properly linked to research and lack essential facilities to interact with extension service clientele.

### **Policy Statement**

Promote an effective extension services system as provided by multiple providers at the *State, County, Payam* and *Boma* levels by ensuring extension agents are well trained and capacitated to undertake their responsibilities of technology transfer from research for adoption by extension clientele.

### **Policy objectives**

- Ensure that extension is demand-driven, client-oriented, participatory and decentralized
- ii. Ensure that extension workers are brokers of information and facilitators aiming at empowering individual and communities to be able to articulate their priorities toward a sustainable and productive livelihood.
- iii. Ensure extension system is based on a continuous flow of appropriate innovations from a variety of sources, local and foreign
- iv. Promote and strengthen appropriate agricultural extension approaches, including farmer field schools

### **Implementation Framework**

- i. Implement the Agricultural Extension Policy developed jointly by the two sister ministries, Agriculture and Forestry and Animal Resources and Fisheries
- ii. Establish Directorate of Agricultural Extension and Advisory Services
- iii. Design and implement Agricultural Extension Improvement Program with concrete measures to develop human and institutional capacity

- iv. Establish Agricultural Service Centres in all the states in South Sudan
- v. Promote and support the functioning of a pluralistic agricultural advisory service provision by government, private investors, CSOs and NGOs
- vi. Promote and support community based extension approaches such as farmer to extension and creation of common interest groups (CIGs)
- vii. Support use of ICT for rural and agricultural development

### **Areas of Emphasis**

- Agricultural Extension Improvement Programme
- Establishment of Agricultural Service Centres

### 6.2 Agricultural education and training

#### Context

Agricultural education and training (AET) is needed to bridge the major knowledge and skill gaps in the sector and prepare a critical mass of educated, well-trained men and women working in the sector. AET systems in Sub-Saharan Africa commonly consist of at least four different components: universities, colleges, technical/vocational schools and non-formal educational organizations and activities. In South Sudan, there are only five functioning public universities and only one of them (University of Juba) have graduate training programs in agricultural disciplines. There is also need to rehabilitate and strengthen the existing training capacities of the five agricultural training institutes belonging to MAFC&RDC&RD and MARF, which currently offer short courses (1-3 months), certificate courses (9 months), and on-demand training as well as community outreach activities.

### **Problem Statement**

The country lacks adequate facilities and resources for designing and training adequate numbers of high quality trained extension personnel at certificate, diploma and graduate levels

### **Policy Statement**

Expand and strengthen the country's extension training facilities to ensure high quality extension personnel are trained in adequate numbers and deployed to different parts and levels of the country

### **Policy objectives**

- Educate and produce technically and professionally qualified human resources in agriculture to support extension, research and training needs of the country and spur the agribusiness sector
- ii. Enhance the capacity of rural people to operate their farm enterprises efficiently and competitively

### Implementation Framework

i. Implement the Capacity Building and Training Policy

- ii. Support the upgrading, strengthening and rehabilitation of government training institutes offering short courses (1-3 months), certificate courses (9 months), and training on demand and community outreach activities.
- iii. Encourage and support universities to offer practical and relevant postgraduate training in agricultural disciplines.
- iv. Design and implement a Special Awareness Program to create awareness about business opportunities and promote agriculture as a career to college/university students, school drop-outs and the general public.
- v. Encourage and promote the establishment of school and community libraries throughout the country to facilitate continuous learning and keeping abreast with current relevant issues relating to the sector
- vi. Foster cooperation with regional and international agricultural training institutions
- vii. Collaborate with Ministry of Education to promote agricultural education in schools
- viii. Strengthened linkage with Agricultural Research Institutions

### **Area of Emphasis**

Re-established Farmer Training Centres (FTCs) at different strategic locations in the country

### 6.3 Cooperatives and Rural Development and Cooperatives

### 6.3.1 Cooperative Development

### Context

Cooperatives have historically been part of economic organizational framework among workers and rural dwellers. In mid 2011 there were 241 registered cooperative societies. Given the right institutional frameworks and leadership the people of South Sudan can be easily mobilized to pool their resources through cooperative societies, community groups and smaller common interest groups. It is the only social arrangement that can be easily linked by government and the business sector to support resource poor citizens. It is for that reason that the government will promote the establishment of cooperatives; and their strengthening where they already exist.

#### **Problem Statement**

The cooperative sector in South Sudan is still at its infancy stages, with very few cooperatives which lack an effective coordination and capacity building framework for their sustainable development

### **Policy Statement**

Promotion of a vibrant and well coordinated and capacitated cooperative sector as a critical catalyst of economic activities by the communities

### **Policy Objectives**

- Promotion of a cooperative development policy and strategy with some propoor elements of interventions
- ii. Expansion of the membership base to cooperatives based on egalitarian principles and other economic associations to enhance market linkages and formal support by government and the commercial private sector. This should encourage the organic growth of CIGs into CBOs and then to cooperative unions, bring in traditional and formal groupings.
- iii. Ensure sustainability of the cooperatives through proper governance systems
- iv. Empower producers and rural operators to access rural finance and strategically sell their produce at competitive prices
- v. Ensure value addition in rural areas to optimize rural jobs and farm incomes

### **Implementation Framework**

- i. Operationalise the Cooperative Development Strategy<sup>3</sup>
- ii. Prepare a Policy on Cooperative Development based on the experience of the existing strategy
- iii. Established umbrella organizations for cooperative societies, community-based organizations (CBOs) and common interest groups (CIGs), which should engage, among other things, in capacity building and training of leaders and members.
- iv. Introduction of a school curriculum on cooperatives in schools, in collaboration with Ministry of Education.
- v. Implementation of policy and regulations for financial cooperatives in collaboration with the Central Bank.
- vi. Establish a Cooperative College for training of cooperative officers and cooperators
- vii. Establish institutional framework for supervision, inspection and audit of cooperative bodies under the auspices of the Registrar of Cooperatives and Directorates of Cooperatives at national, state and county levels.
- viii. Strengthened coordination capability of the Directorates of Cooperatives and Rural Development
- ix. Collaborate with the Banking Sector to promote urban and rural financial services
- x. To strengthen the Marketing Department to promote warehouse receipt system as a mechanism of enhancing farmers' income through better pricing
- xi. Adaptation of the existing public-private partnership (PPP) framework for encouraging cooperatives and private sector investors to engage in value addition of farm outputs as a means to optimize their earnings.
- xii. Establish a monitoring and evaluation system.

<sup>&</sup>lt;sup>3</sup>A final draft strategy for cooperative development was prepared by MAFC&RD in May 2012 but it lacks an implementation strategy.

- Establish a Cooperative College for training of cooperative officers and cooperators
- Collaborate with the Banking Sector to promote urban and rural financial services and warehouse receipt system for commodity management

# 6.3.2 Rural and Community Development

#### Context

Most of the communities in South Sudan have drawn their strength of social belonging and common purpose through communal organizations and social networks. The rural communities are organized through nucleus families, followed by clans and villages. The success of many rural development interventions is interlinked to the community organization, be it in addressing social injustices, security, public health or building and maintenance of rural infrastructural systems such as rural roads, wells, health centers and schools. As at February 2012, there were 34 registered CBOs in 5 out of 10 states. If well organized, they are a formidable force to complement development resources provided by central, state or county governments.

#### **Problem Statement**

Weak organization of the rural communities, served with poorly established social amenities and economic infrastructure under weak local leadership for effective community mobilization for development initiatives in South Sudan.

## **Policy Statement**

Empower communities and their leaders to effectively participate in undertaking sustainable development initiatives with the support of government and development partners.

## **Policy Objectives**

- i. Implement the policy on Community Development prepared in 2011
- Prepare a Rural Development Policy to address, among others, community development, rural infrastructure development and the involvement of communities in collaboration with central and national governments
- iii. Establish an institutional legal framework for managing development funds
- iv. Ensure respective roles of communities and government in rural development.
- v. Enhance coordination and cooperation among and between different government departments and between government and communities; and among communities
- vi. Enhance capacity for understanding and advancing community development principles among government officials and community leaders and their members
- vii. Develop an accountability framework based on transparent principles

## **Implementation Framework**

- i. A strategy for Community Development put in place.
- ii. A strategic implementation framework for the Rural Development Policy in place
- iii. Strengthen training institutions starting with Amadi Rural Development Institute
- iv. Updated curriculum to cover some emerging social and economic challenges facing the youth in rural and urban areas
- v. Allocate special fund for rural community projects
- vi. Strengthened role of community development officers to continuously offer trainings on respective roles of communities and government in rural development
- vii. Training programme prepared for enhancing the capacity of government officials, community leaders and their members on community development principles
- viii. An operational supervision and accountability framework in place under the supervision of community development officers
  - ix. Strengthened coordination capability of the Directorates of Rural and Community Development
  - x. A Monitoring and Evaluation Framework put in place

Revival of training institutions starting with Amadi Rural Development Institute

## 6.4 Agricultural Research

### **Context**

Given a lack of a comprehensive and coordinated crop and forestry tree breeding program for generating improved varieties/ species, farmers in South Sudan still depend on low yielding seeds and local landraces. Research support to deal with rampant pests and diseases, unimproved traditional agronomic practices, primitive farm and processing tools, and declining soil fertility is also lacking. The new nation is thus grappling with the challenges of setting up an effective agricultural research system. Currently, the agricultural and livestock research system is embedded within the two Ministries: Agriculture and Forestry (MAFC&RD) and Animal Resources and Fisheries (MARF), which has created problems of planning, implementation, administration, coordination and financing. With no autonomous or semiautonomous research institutions, there is a problem of organizational structure to effectively plan, implement and manage agricultural research programmes in the country. Ensuring that agricultural research is demand-driven and farmers are actively involved in the research process to take into account their indigenous traditional knowledge remains a major challenge.

## **Problem Statement**

The Country's research system is weakly coordinated and poorly funded; with inadequate capacities to effectively plan, implement and manage agricultural research programmes with useful outcomes for promoting technological uptake by clientele.

# **Policy Statement**

Establishment of a well coordinated and functioning national agricultural research system backed by a well funded institutional framework and effective capacity building and legal systems for its efficient operation

# **Policy objectives**

- i. Improve agricultural productivity and food security in South Sudan by generating and promoting knowledge and technology in agricultural sciences and fostering the acquisition and adaptation of improved technologies.
- ii. Put in place a revitalized and participatory research system that recognizes the need for the integration of research with extension, education, farmers and non-governmental organizations to make visible and measurable contribution to the transformation of the agricultural sector;
- iii. Ensure that research programs are innovative, creative and solve real problems of agricultural production and contribute to food security and sustainable use of natural resources

## **Implementation Framework**

- i. Establishment and operation of the South Sudan Agriculture Research Organization (SSARO) through the stewardship of the South Sudan Research Council (SSRC) to provide overall guidance and oversee research activities within the country
- ii. Design and implement an Agricultural Research Rehabilitation and Support Program in order to:
  - a. Build/ rehabilitate national research capacities (human, infrastructural and institutional) and make them more responsive to farmers' most critical needs
  - b. Concentrate on 'quick wins' measures that seek to re-initiate adaptive and applied research capacity building activities
  - Guide research and development efforts towards pluralism, decentralization and partnership with the private sector, training institutions and non-governmental organizations
  - d. Contribute to the provision of improved planting materials and promote indigenous crop varieties/species
  - e. Foster a mechanism for strong extension-research linkage through appropriate institutional setup and joint planning, implementation, monitoring and evaluation of programs and projects.
  - f. Ensure linkages and networking with local, regional, international universities and research centres
  - g. Ensure restoration and characterization of germplasm as part of the effort to save landraces/species and establish a national gene bank

# **Area of Emphasis**

# 6.5 Plant genetic resources conservation

#### Context

Genetically modified organisms (GMOs), which include genetically modified seeds and other planting material, including animal species, are globally promoted by Multinational Corporations with promises of enhancing productivity and therefore solving food insecurity and also increasing the competitiveness of some cash crops and forestry products. The biggest fear, however, is the introduction of terminator seeds, which compels the user of such improved seeds to perpetually depend on the company holding the licence for seed production. It will therefore be important to constantly weigh carefully the merits and demerits of crop, animal or forest product adoption of this genetically modified material. South Sudan has a wealth of ddiverse genetic resources that are important for maintaining an efficient and sustainable farming industry, as these allow development of varieties and breeds to cope with new demand and climate changes. This genetic diversity has been maintained in South Sudan thanks to the long tradition of conserving seeds. Any hasty move towards modernization could result in genetic erosion. Local landraces/species can be replaced by new varieties/species and lost through environmental degradation and desertification.

# **Policy Statement**

A well managed policy on GMOs to ensure stability and diversity of South Sudan's diversity of its indigenous genetic resources for enhancing agricultural development

# **Policy objectives**

- i. Prepare a policy on GMOs
- ii. Develop and execute a well-coordinated and sustainable program for the conservation and judicious utilization of plant genetic resources to enhance agricultural development
- iii. Ensure bio-safety of the GMOs and their environmental appropriateness where proven to contribute to food security enhance or commercial interests of the country
- Monitor the developments in GMOs releases globally and the movement or spread of the same among trading partner countries

# Implementation framework

- i. Establish a special unit in the Ministry to monitor the developments in the GMOs sector and assess the cost-benefits to the country's agricultural sector
- ii. Promote and support research in/and germplasm utilization, and enhance information exchange
- iii. Promote in-situ and community conservation and management of plant genetic resources and create awareness on plant genetic resources

- iv. Support the establishment of a plant genetic resource centre for better utilization by the public and research scientists
- v. Regulate the introduction of GMO products through appropriate legislation and enhancement of necessary handling and application.

- Plant genetic resource centre for indigenous plant material
- Laws and protocols for the importation and use of GMOs in South Sudan prepared

# 6.6 Access to land, tenure security and land use

#### **Context**

Land is a core natural resource essential for the development of South Sudan. The current laws allows for a combination of customary and formal or statutory land ownership. Ensuring that land is surveyed and titled to individuals is seen as an important component of taking land as an asset for attracting investments through the banking system. However, only a small fraction has been surveyed and classified. The absence of a comprehensive land classification map and enforcement of land use plans according to the existing Land Law has weakened land administration system in both statutory and customary land. Moreover, the absence of a significant part of legitimate landowners in rural areas of South Sudan has created the wrong impression that land is free for occupation by outsiders and the state, contributing sometimes involuntary or deliberately to the process of land grabbing, ranging from illegal occupation of land reserved for public facilities to international investors taking huge tracks of land for future development. Several institutions, including Ministries of Housing and Physical infrastructure, the Land Commission, Ministry of Agriculture, Forestry, Cooperatives and Rural Development, and the Ministry of Local Government are concerned with land matters.

The RSS has shown its support for security of land rights through the adoption of the Land Act of 2009 and through the wide public consultation that has characterized the development of the draft Land Policy. The Land Act and the draft Land Policy accord all three systems of tenure<sup>4</sup>, that is community land, public land and private land, equal status before the law. The Land Policy has recommended a thorough rationalization and reform of central government agencies responsible for land rights administration. Specifically, the policy calls for the establishment of a central government Ministry with overall responsibility for land sector administration in South Sudan.

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<sup>&</sup>lt;sup>4</sup>(i) Community tenure will be the principal form of tenure in areas that are predominantly rural; (ii) Public and freehold tenure will be the principal forms of tenure in areas that are gazetted officially as urban areas, under the Town and Country Planning Act; and (iii) Public land also includes land over which no private ownership including customary ownership is established; roads and other public transportation thoroughfares; water courses over which community ownership cannot be established; and forest and wildlife areas formally gazetted as national reserves or parks;

#### **Problem Statement**

The lack of a strong institutional and legal framework for land classification, land uses and ownership has led to unsustainable uses and equitable distribution of land resources.

# **Policy Statement**

Contribute to effective implementation of the Land Policy to strengthening agricultural and other types of land administration in the country

#### **Policy objectives**

- i. Implementation of the Land Policy for the Republic of South Sudan
- ii. Ensure development of a comprehensive land classification map
- iii. Put in place a land tenure and land use system that ensures access and extends security of property rights, and reduce land-based conflicts.
- iv. Promote and support the efficient and transparent operation of land markets, subject to appropriate forms of public oversight and regulation
- v. Promote and support the efficient and transparent operation of land markets, subject to appropriate forms of public oversight and regulation
- vi. Ensure that poor citizens of South Sudan, including women, youth, returnees and IDPs, gain security of property rights as essential to food security and poverty reduction
- vii. Make sure that the land use and land tenure system ensures sustainable use of natural resources
- viii. Ensure the establishment of a land use planning unit.

## **Implementation Framework**

- Collaborate with South Sudan Land Commission on implementation of South Sudan Land Policy, which will focus on strengthening land sector administration. One of the tasks of the administration will be to establish a land bank for investors.
- ii. Prepare a comprehensive land classification map for the whole of South Sudan
- iii. Support poor farmers, especially women, to claim and defend land right through legal empowerment and accountable institutions
- iv. Promote land use plans for demarcating land for national reserve, agriculture, forestry, industry and wetland
- v. Promulgate soil conservation law that will enhance sustainable land use;
- vi. Advocate for mitigation of land based conflicts through institutional arrangements at county levels (e.g. establishment of Land Tribunals with legal mandates).

# 6.7 Water resources development and irrigation

Much of the vulnerability to food insecurity in South Sudan can be attributed to rainfall variability. In several areas of South Sudan, drought is often accompanied by loss of agricultural production and income, poor food supply and collapse of traditional coping mechanisms. Irrigated agriculture accounts for less than 5% of the total cultivated area.

The RSS is committed to developing water resources of the country in order to reduce vulnerability of production to rainfall variability. The Ministries of Agriculture, Forestry, Cooperatives and Rural Development and Water Resources and Irrigation are expected to work together and expand land under irrigation and meet the NEPAD/CAADP target of developing small-scale water control system, rehabilitating large-scale irrigation systems and developing large-scale schemes.

## **Problem Statement**

A poorly developed irrigation and water management system in the country thus contributing to low agricultural productivity despite the presence of many rivers, streams, swamps and probably underground water reservoirs.

#### **Policy Statement**

Promote sustainable irrigation infrastructure and flood management system to contribute to improved agricultural productivity and food security enhancement

## **Policy objectives**

- i. Expand irrigated agriculture with the objective of contributing to food security, job creation and income generation.
- ii. Boost domestic agricultural production using irrigation where rain-fed alone cannot meet demand
- **iii.** Ensure that utilization of water resources of South Sudan is consistent with the principle that water is a fundamental human right;
- iv. Ensure that South Sudan water resources, including river basins, are appropriately utilized in line with regional and international agreements, including the Nile Basin Initiative.

## **Implementation Framework**

i. Collaborate with the Ministry of Water Resources and Irrigation (MoWRI) in developing a National Irrigation and Drainage Policy and Strategy (NIDPS) to ensure integrated water resources management (IWRM) and meet national, regional and continental targets in the water resources sector. The NIDPS should be able to:

- a. Develop proper land and water resources planning and management and ensure the protection of watersheds and wetlands
- b. Ensure smallholders and private sector investment in cost-effective irrigation schemes and networks
- c. Support full participation of women in irrigation and promote their meaningful roles in decision-making processes
- d. Mobilize resources and implement Irrigation and Drainage Development Program
- e. Support the establishment of water user association of small farmers and pastoralists and network of such associations to avoid conflict over water
- f. Ensure networking and linkages with regional and water forums.
- Build institutional and human capacity in irrigation and drainage development
- iii. Support and promote private sector participation in capacity building, feasibility study, scheme design & construction of irrigation, livestock water supplies and aquaculture development
- iv. Support and collaborate with the MWRI in implementing the Water Policy and implementing various water resource development activities
- v. Promote water harvesting technique in arid and semi-arid areas for boosting irrigation agriculture

- Irrigation and Drainage Development Program
- Water/River Basin Committees and Authorities

## 6.8 Agricultural production services

## 6.8.1 Fertilizer importation, manufacturing and distribution

#### Context

Among the leading factors contributing to low productivity is lack of application of fertilisers to improve soil fertility. Some estimates indicate that the average amount of fertiliser applied per hectare is 4 kg/ha against an average of 10kg/ha in Sub-Saharan Africa against FAO's recommended rate of 200 kg per hectare. Apart from extension and credit services, a well-functioning input market is critical in expanding the use of fertilizer. In South Sudan, there are very few private/ public firms engaged in fertilizer importation and distribution. This needs to be changed if fertilizer use is to increase.

## **Problem Statement**

There is a very low application of fertilizers on the farms in the country despite evidence of poor fertility levels, which has not helped to improve crop productivity and enhance farm income and food security.

# **Policy Statement**

A well functioning fertilizer importation, storage and distribution system for enhancing agricultural productivity

# **Policy objectives**

- i. Smallholders and commercial farmers have adequate access to affordable and high quality improved seeds and fertilizer
- ii. A competitive and well regulated, dynamic and efficient seed and fertilizer distribution network is established

## **Implementation Framework**

- i. Implement the South Sudan Fertilizer Policy
- ii. Established Soil Department at the MAFC&RD
- iii. Strengthen soil fertility testing laboratories in strategic locations
- iv. Assist larger private companies with experience to import and distribute fertilizer and other chemicals when necessary
- v. Introduce targeted subsidy program to promote the use of fertilizer and implement the program without undermining private sector activities.
- vi. Support duty free import of fertilizers as incentive to boost agricultural investment

## **Areas of Emphasis**

- Establishment of South Sudan Fertilizer Commission
- Establishment of Fertilizer (inorganic and organic) Development Consultative Forum

# 6.8.2 Seed multiplication, certification and distribution

The majority of farmers use indigenous seed stock, whose yield levels, even under best husbandry practices, are low compared to hybrid and other improved seeds. In most of the years farmers had to rely on imported seed relief supplies as local stocks are depleted due to poor production. In recent years the government in collaboration with partners such as FAO have introduced "seed re-collection programmes" from identified local seed producers using some tested stocks provided in earlier seasons. Most of the imported improved seed is from Kenya and Uganda, but there are still challenges of quality control and distribution due to poor logistics. Apart from extension and credit services, a well-functioning input market is critical in expanding the use of improved seeds in the country. There is an urgent

need to fill the vacuum in the provision of improved seeds through properly coordinated seed certification process and a well functioning private and public seed producing and distributing system.

#### **Problem Statement**

Lack of a formal support system for the production, certification, storage and distribution of improved seeds and planting material has perpetuated the use of uncertified locally produced stocks by most farmers.

# **Policy Statement**

Ensure an established and well functioning formal support system for the production, certification, storage and distribution of improved seeds and planting materials, with the support of communities for multiplication and building of the same so that most farmers used improved and/or certified seed stocks.

# **Policy objectives**

- i. Adopt the South Sudan Seed Policy
- ii. Adopt EAC and internationally accepted protocols for seed testing, multiplication and distribution
- iii. Smallholders and commercial farmers have adequate access to affordable and high quality improved seeds and planting materials
- iv. A competitive and well regulated, dynamic and efficient seed distribution network is established

## Implementation Framework

- i. Implement the South Sudan Seed Policy
- ii. Establish a South Sudan Seed Council (SS-SC)
- iii. Establish a South Sudan Board for Seed Testing (SS-BST)
- iv. Design and implement Planting Materials Supply Program (PMSP) to support farmer organizations, private sector and NGOs to produce and distribute improved seeds of staple food crops such as sorghum, maize, rice (e.g. the new rice for Africa, NERICA) and cassava as a matter of immediate priority
- v. Support and promote farmer-to-farmer seed multiplication and seed delivery system (community based seed production and distribution)
- vi. Strengthen seed testing laboratories and introduce seed certification system
- vii. Harmonise a seed certification system with that in the East African Community
- viii. Assist larger private companies with experience to import and distribute seeds and other planting material when necessary
- ix. Introduce targeted subsidy program to promote the use of improved seeds and fertilizer and implement the program without undermining private sector activities.
- x. Support duty free import of seeds as incentive to boost agricultural investments

- South Sudan Seed Council
- Planting Materials Supply Program (PMSP)
- South Sudan Board for Seed Testing
- South Sudan Seed Network (SSSN) establishment and joining the African Seed Trade Association (AFSTA)

# 6.8.3 Plant Protection Using Integrated pest and Disease Management

## **Context**

Proper control and management of diseases and pests on farm and post-harvest can save more than 35 percent of the potential loss. In some of the crops such as vegetables, tubers and fruits losses of more than 90 percent can be incurred as a result of poor pest and disease management. The Department of Plant Protection is ill-equipped to prevent and control plant pests and diseases due to low staffing levels needed to effectively handle, regulate, monitor, and advise on the use and application of pesticides. The Department has no database on injurious insect pests and control measures on non-chemical pest management for effective support to farmers. The country does not have state of the art laboratories and equipment for testing of diseases and pests. There is also lack of a comprehensive policy on integrated pest management, which has resulted to unsustainable use of industrial pesticides and management of pests and diseases by farmers.

#### **Problem Statement**

Low utilization of pesticides and low adoption of integrated approaches to pests and diseases has led to huge economic losses for most crops

## **Policy Statement**

Enhanced institutional framework for promotion of sustainable crop pest and disease management and ensuring accessibility of organic and inorganic pesticides by farmers

# **Policy objectives**

- i. Formulate and adopt a Policy on Plant Protection
- ii. Coordinate private sector stakeholders to adopt sustainable approaches to management of pests and diseases
- iii. Ensure that the principles of integrated pest and disease management (IPDM) are applied as the best option in all farming
- iv. Ensure that pest control methods are used in an integrated manner and pesticides are used on an as needed basis only, and as a last resort component of an IPDM strategy.
- v. Prevent the health and environmental problems arising from chemical use.

## **Implementation Framework**

- i. Implement the Plant Protection Policy
- ii. Establish South Sudan Plant Protection Authority
- iii. Establish a forum for plant protection agro-chemical dealers
- iv. Strengthen/upgrade the Department of Plant Protection and Agro-chemicals
- v. Collaborate with local and regional research institutions to identify and introduce pest and disease resistant crop varieties which are adaptable to South Sudan condition
- vi. Develop IPDM strategies for each of the major farming enterprises and use farmer field schools, or an equivalent approach, in applying IPDM to small-scale farming activities
- vii. Ensure adherence of safety standards when handling chemicals

# **Areas of Emphasis**

- South Sudan Plant Protection Authority
- Plant Protection Business Association

# 6.8.4 Agricultural mechanization

#### Context

The main power source for agricultural operations comes from human muscle using simple hand tools. Agricultural mechanization is needed to improve efficiency and effectiveness of farm operations, more now as the youth, who are the most energetic segment of the population, are migrating away from rural areas. Since 2007, the government, through MAFC&RD, has purchased over 400 various model of tractors and distributed to the ten states with the objective of encouraging mechanization in land preparation and other field operations. The tractors are in principle availed for hire by farmer and farmers groups, and cooperatives. However, lack of tractors spare parts, fuel and lubricants and skills to maintain tractors and oxplough and adaptability of plough model to soil conditions has constrained effective use of the tractors.

#### **Problem Statement**

The bulk of land is still cultivated using rudimental and inefficient hand-held farm implements and tools, thus contributing to low farm productivity levels. Farmers willing to mechanize using tractors have faced challenges related to high costs of purchase and unreliable after-sales services.

## **Policy Statement**

Enhance farm mechanization using appropriate technologies and backup services to support farmers adopting farm mechanization

## **Objectives**

- Enhance the use of mechanized technology to lessen drudgery and increase labour productivity
- ii. Ensure widespread use of appropriate technology throughout the value chain
- iii. Ensure support system for widespread mechanisation

# **Implementation Framework**

- i. Implement the Mechanization Policy
- ii. Facilitate the establishment of the South Sudan Agricultural Mechanization Corporation (SSAMC) whose responsibility will be to oversee the validation and implementation of the policy. The Unit will:
  - a. Ensure that imported equipment and machines are suitable for the intended agro-ecologies
  - b. Encourage the standardization of machines imported, thereby making the stocking of spare parts easier
  - c. Encourage and support the private sector, cooperatives and other farmer organizations to provide mechanization services
  - d. Promote and facilitate the establishment of work-oxen training and extension program
  - e. Encourage and support local fabrication of suitable tools and equipment
  - f. Support and facilitate duty free importation of spare parts
  - g. Promote/support training centres for farm machinery operators and mechanics to ensure sustained functioning and maintenance of farm machineries

# **Areas of Emphasis**

South Sudan Agricultural Mechanization Corporation (SSAMC)

# 7.0 Policies In Support Of Agricultural Markets, Value Chain Development and finance

# 7.1 Agricultural Markets and Mgribusinesses

# **Context**

Properly functioning agricultural markets for both inputs and produce is key to the success of commercial farming. Efficient movements of goods and people require a well established network of transport infrastructure. Unfortunately, most villages in South Sudan are not accessible by vehicles and most parts of the country become inaccessible during the rainy season. Because of inadequate storage facilities, coupled with poor handling and post-harvest transportation, post-harvest losses

(excluding pre-harvest losses) are exceptionally high in the country. Insecurity and multiple taxes have discouraged grain trade between surplus and deficit areas. Most urban markets get their food supplies from neighboring countries. There are no large- or medium-scale traders with sufficient capacity to handle larger quantities.

## **Problem Statement**

The country suffers from an under-developed and low performing agricultural markets, agribusiness, microfinance and trade as a result of infrastructural and institutional constraints. Consequently most farmers have no access to organized markets thus suffering from high transaction costs for buying inputs and selling their produce.

# **Policy Statement**

Support the establishment of a well functioning output marketing system driven by commercial interests by cooperatives and private sector operators to ensure producers have reliable supplies of inputs and competitive domestic and international markets for their produce.

# **Policy objectives**

- Guarantee that producers have access to market and face minimum markets' risks
- ii. Ensure that multiple and excessive taxes are reduced
- iii. Ensure the emergence and growth of agribusiness sector with the aim of increasing farm income and creating jobs for rural populations through adding value to produce, reducing post-harvest losses and saving on transport costs
- iv. Ensure improved and legal access to regional and international markets

## (a) Implementation Framework: Markets Development

- i. Establish a Department of Agricultural Markets and Agribusinesses
- ii. Design and implement a South Sudan Agricultural Market Development Program to:
  - a. Build the capacity of traders, transporters and millers through promoting and supporting associations (of traders, millers, and transporters), improving access to finance, and building businesses and entrepreneurial skills.
  - b. Support the rehabilitation of market places and construction of commercially based storage such as warehouse receipt systems.
  - c. Support the development of infrastructure such as roads, bridges, railway networks and river transportation.
  - d. Assist small producers to link with established markets through the involvement of agricultural extension services, NGOs and farmer associations
  - e. Support the establishment of cooperatives
  - f. Support the introduction of standards for quantifying and grading products, and gearing these standards to the needs of small farmers.
  - g. Develop capacity to handle food safety and quality issues

- iii. Support and promote the establishment of Agricultural Market Information Service that uses local radio stations, mobile phones and the Internet, and links the national system with sub-regional market information systems
- iv. Facilitate larger experienced private companies to import and distribute fertilizer and other chemicals

# (b) Implementation Framework: Agribusiness Development

- i. Undertake a study to inform the Government on appropriate incentives to promote the establishment of agro-industries, and based on the results, design and implement a program to promote agribusinesses.
- ii. Support and ensure that high priority and tax incentives are given to agroindustrial investment in the country's Investment Code
- iii. Promote partnership between agribusiness and smallholder farmers and their organizations, and assist larger experienced processing firms to engage in contract farming.
- iv. Encourage universities to initiate training and specialization in agribusiness

# (c) Implementation Framework: External Trade Development

- Undertake a study to inform the Government on appropriate incentives and policy support for companies engaged in exporting traditional and nontraditional agricultural and forestry products.
- ii. Advocate and support South Sudan's membership in various regional and international trade arrangements, including East African Community (EAC) and COMESA
- iii. Take steps to regulate and formalize cross-border trade

## **Areas of Emphasis**

- South Sudan Agricultural Market Development Program
- Agricultural Market Information Service

## 7.2 Rural financial services

## Context:

Providing broader access to financial services improves the productivity, profitability and sustainability of smallholders. However, access to finance has been a major bottleneck for smallholders as well as diverse operators in the value chain, including, input dealers/suppliers, processors, transporters, storage/inventory warehousing operators and distributors. According to the South Sudan Development Plan, alternative financial services that are less dependent on property title as a means of securing loan capital should be explored, given the low penetration of the banking sector in South Sudan where less than one percent of the households possess a bank account.

#### **Problem Statement**

The poor capacity of local commercial banks, the lack of collateral due to the frail structures for land registry, and a nascent legal, regulatory, and enforcement framework have severely constrained financial service development in the country such that only one percent of the population have bank accounts

# **Policy Statement**

Enhanced facilitation to the growth of banking and non-banking financial services, including rural finance, for expanded financing of agricultural and rural sector development in production, processing, storage and marketing.

# **Policy objectives**

- i. Ensure that smallholder farmers have access to credit/loans
- **ii.** Ensure producers have access to affordable long-term loans for investment in major land improvement structures, irrigation infrastructure and tools, tree crops, etc.
- **iii.** Ensure that agribusiness operators, including input dealers/suppliers, processors, transporters, and storage/inventory warehousing operators, can access credit to meet their working and investment capital needs

# Implementation framework

- i. Actively support the establishment of Agricultural Development Bank
- ii. Support the review of banking regulations and related legislations to allow some level of liberalization that will encourage commercial banking institutions to play greater role in enhancing agricultural development
- iii. Support the provision of incentives to banks providing loans to agriculture and agribusiness sectors, using instruments such as reduction in secondary reserve requirements and tax rebates
- iv. Support and promote credit guaranteed funds for rural credit as an inducement to increase lending to agriculture, reduce collateral requirements, and reduce interest rates
- v. Support the formation and expansion of membership-based financial organizations, microfinance institutions and rural banks to ensure that smallholders (with no collateral asset) have access to credit
- vi. Promote linkages between formal banking sector and rural financial institutions

## **Areas Emphasis**

• Agricultural Development Bank establishment

# 7.3 Agricultural Insurance schemes and early warning systems

Vagaries of weather, coming as drought or floods, have cost farmers huge losses of farm production. Moreover, intra-ethnic conflict, cattle rearing and protracted conflicts displaced large number of farmers and/or pastoralists from their land. In the event of these natural and human made disasters, the policy should envisage an

emergency preparedness and response plan. The provision of early warning information such as timely crop forecasting, facilitating humanitarian assistance and assisting reintegration after the conflict are some of the policy directions in response to emergency preparedness and response.

## **Problem Statement**

Lack of mitigation measures against unforeseen crop failures such as drought and disease outbreak has been a major setback for ensuring sustainable farming business ventures

# **Policy Statement**

Facilitation of establishment of weather-based crop insurance system and operation of an early warning system on possible droughts and pests outbreaks

# **Policy Objectives**

- i. Ensure that farmers are protected from disasters and have the resources to continue producing food and agricultural products
- ii. Ensure that farmers adopt farming practices (smart agriculture) that are resilient to changes in weather conditions

# Implementation framework

- i. Undertake a feasibility study to develop crop insurance scheme and financial support to farmers in the event of crop failure
- ii. Establish Calamities Fund with the objective of compensating families affected by natural and man-made disasters
- iii. Develop early warning systems to guide production, marketing, valueadditions, emergency response decisions based on pre and post-harvest losses (link with agricultural statistics).

# **Area of Emphasis**

• "Calamity Fund" establishment

# 8.0 Policies On Food Security And Nutrition

## **Context**

The world food summit, 1996, defined food security as existing when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. The ASPF will contribute directly to achieving food and nutrition security and safeguarding the welfare of low income households, including some marginalised groups through access to affordable food stuffs and also promoting the nutritional status of children, women and the youth. Since food contributes a proportionately high share to the cost of basic needs of low income households, affordable prices

will also help to tame down inflationary pressures and prevent the occurrence of "Dutch disease" in the economy as a result of income from the oil sector. Food insecurity in is endemic in South Sudan. It is mainly caused by low level of farm productivity, lack of viable income earning opportunities and inability of government or private sector to provide adequate amount of resources on time to fill the food demand gaps. The RSS has developed the National Food Security Action Plan, NAFSAP (2008 – 20011), which needs to be updated. There is also an ongoing effort by WFP to develop a Safety Net Strategy.

# 8.1 Food security

#### **Problem Statement**

Low levels of farm productivity, poor-post harvest management of stocks and lack of viable alternative income earning opportunities to buy food by vulnerable households has resulted to an endemic problem of famine and food insecurity in most parts of the country

## **Policy Statement**

Enhance the adoption of policies that increase farm productivity, conserve postharvested stocks, diversify household income and permit access to marketed stocks so as to ensure food security for all households all year round

# **Policy objectives**

- i. Contribute to food security through improving food availability, enhancing food access throughout the year, and promoting better food utilization
- ii. Ensure that farming households are able to achieve adequate level of productivity and income to meet their food and nutrition needs
- iii. Establish infrastructural network sufficient to motivate market forces to optimise business opportunities by taking food stocks from surplus areas to food deficit areas without hindrance
- iv. Ensure that food is accessed by low income households at affordable prices throughout the year
- v. Ensure policies are in place that motivate producers and industrial operators to produce surplus food stocks and process/package for the domestic and export markets

## Implementation framework

- i. Contribute to the revision of the National Food Security Action Plan (NAFSAP)
- ii. Establish guidelines to ensure that all investment in agriculture and agribusinesses generate sufficient employment for the local community
- iii. Support and promote employment in value addition and non-farm activities by facilitating access to rural labour market information systems, skill development centres and enterprise development services.

- iv. Contribute to school feeding programs as a means to create markets for local produce
- v. Enter into an Memorandum of Understanding with International Food Relief Agencies to ensure that their operations promote long term goals for national food self sufficiency
- vi. Establish a rural infrastructure fund for investment in high potential agricultural zones of each state to encourage investments in production and agroprocessing
- vii. Establish a National Food Strategic Reserve Fund and system for price stabilisation and food security

National Food Strategic Reserve Fund

# 8.2 Nutritional security

#### **Problem Statement**

Lack of adequate knowledge and facilities for post-harvest handling of food stocks, in storage, processing and cooking; contribute to nutritional losses, thus leading to preventable malnutrition, especially among children and infants

# **Policy Statement**

Promote policies that facilitate the use of acceptable methods in food handling and diet planning to enhance the nutritional value and balanced food intake by the population

# **Policy objectives**

- Contribute to food and nutrition security through promoting better storage, processing methods, handling, preparation and utilization so as to improve nutritional status of the population
- ii. Contribute to public knowledge on balanced diet planning through well informed and healthy food consumption patterns and practices
- iii. Ensure that all animal feeds produced, are nutritionally wholesome, and are safely handled, stored and distributed for animal consumption

## Implementation framework

- i. Contribute to the revision of the National Food Security Action Plan (NAFSAP)
- ii. Develop a strategy to ensure that foods and feeds produced, handled, stored, processed and distributed are safe, wholesome and fit for consumption
- iii. Establish a specialised agency to monitor the adherence to acceptable standards on safety of foods and feeds for human beings and livestock and poultry

- iv. Develop programmes for fortification with essential minerals and vitamins processed staple foods consumed by low income groups who cannot afford regular balanced diets
- v. Contribute to school feeding programs as a means to ensure school age children get balanced diets needed for their early body and brain development
- vi. Strengthen partnership with the Ministry of Health and other stakeholders to reduce high rates of malnutrition among children and vulnerable groups
- vii. Enhance informed food consumption patterns and practices, improve access to safe drinking water, and promote the use of safe latrines to minimise food contamination and poisoning.
- viii. Promote small and large scale food processing industries

National Food Security Investment Plan (NAFSAP)

#### 8.3 Bio-Fuels

The fluctuations of international prices for fossil fuel coupled with social unrest in some of the major oil producers in and outside the OPEC have led to speculative investment in bio-fuel production, with anticipation that demand for oil in the long run is set to outpace supply. The fast growing economics of the BRICS, which have defied the odds of the global financial crisis, is driven by the rapid expansion of the industrial sector in these countries and the growing middle income class, with high propensity to consume energy loaded products and services. The rush to invest in bio-fuel production has inevitably led to a "land grabbing" phenomenon in least developed countries by multi-national corporations. There is therefore a genuine fear that if not well handled, a landless class would emerge sooner or later in these poor countries. Now that RSS is a free country, there is no reason to believe that it will be spared from this global phenomenon of land rush by multinationals and even nation states facing scarcity of arable land to feed their people. It is therefore pertinent that RSS puts in a place a legal and institutional framework to proactively address the issue. Since there is a global phenomenon of competing demands on land uses, especially between food and bio-fuel production, the government's policy will be to "strengthen land management system through proper land use plans, including land classification and reservation for different type of agricultural uses". This will simplify the implementation of a policy on bio-fuel to prevent depletion of land for food crops.

#### **Problem Statement**

The country lacks well articulated policies to handle the ongoing scramble for arable land for food crops and bio-fuel production to meet a food-hungry and fuel thirsty growing global population, which see some of the prime land taken by multi-national corporations and nation-states

# **Policy Statement**

Strengthened land management system through proper land use plans, including land classification and reservation for different type of agricultural uses. Implement a policy on bio-fuel policy to prevent depletion of land for food crops

# **Policy objectives**

- Ensure that bio-fuel cultivation don't lead to land scarcity for traditional crop and livestock enterprises with risks for food shortage or supply of raw materials for established industries with a better economic multiplier effects
- ii. Put into economic use for bio-fuel production any marginal land not fully utilised

# Implementation framework

- i. Prepare a national policy on bio-fuels development
- ii. Develop a strategy to ensure that bio-fuel production don't lead to competition of prime land for agriculture, livestock and established forestry development in the country

# **Area of Emphasis**

Policy on Bio-Fuels Development

# 9.0 Policies On Forestry Development And Management

# **Role of Forestry**

## Context

The Ministry of Agriculture, Forestry, Cooperatives and Rural Development (MAFC&RD) recognizes the great importance of forests conservation since it plays a crucial role in watershed stability, livelihood support, sustainable agricultural production and mitigation of climate change. However, the Ministry is aware of the major problems contributing to forest degradation which is leading to environmental degradation. There is also still low level of knowledge and skills in forestry, management, conservation and utilization compromise forestry development initiatives by Government and other partners. There are opportunities to facilitate forest sector and industrial development given the abundance of forest resources, (e.g., fruits, fibres, grasses, honey, oils, resins, gums, sand, gravel and forest soils). The main constraints limiting restoration and sustainable development of forests in this country include: lack of a comprehensive institutional arrangements and agreement on ownership of forest reserves; forest fires and illegal resource exploitation; uncontrolled commercial lumber extraction and non-commercial over harvesting for wood products; extraction of fuel-wood and charcoal; low investment in forestry industry; shifting cultivation and overgrazing; and climate change induced droughts.

## **Problem Statement**

Sustainable forestry development is faced with challenges, which include low capacity in conserving nature and biodiversity, slow pace of effecting plans under the established South Sudan Forest Corporation (SSFC)

# **Policy Statement**

Ensure a comprehensive institutional and legal framework for sustainable forestry management; involving multiple stakeholders under the facilitation of government and states under the auspices of the South Sudan Forest Corporation (SSFC)

# **Policy Objectives**

- i. Develop a forestry policy and an implementation strategy for the sector
- ii. Ensure that increased forest income is committed directly to sustain and improve forest resource base for the present and the long-term future.
- iii. Enhance and empower communities in forestry management, decision making and accrual of tangible benefits.
- iv. Develop fire management system to control and manage forest fires.
- v. Delineate and ensure protection and management of various types of natural woody vegetation as required for conservation of biodiversity.
- vi. Develop and acquire appropriate industrial technologies for production and processing of forest products.
- vii. The private sector should be encouraged to invest in forest management in the central government forest reserves (CFR), state government provincial forest reserves (PFR), county and community lands, under public-private-community partnerships.
- viii. Put measures in place to develop human resources needed to implement this policy in collaboration with NGOs and CBOs
- ix. Strengthen working linkages and coordination with foreign national, subregional, regional and international organizations including RSS line Ministries and State Governments to effectively manage and harmonise Forestry policy implementation

## **Implementation Framework**

- Establishment of the South Sudan Forest Corporation (SSFC) and the National Forest Development Fund (NFDF). The NFDF will be the instrument for mobilizing and enhancement of resources for sustainable forest development.
- Develop a participatory institutional arrangement for involvement of local communities and other stakeholders in the protection and management of forests
- iii. Review forest management legislation and regulations to strengthen protection efforts by different stakeholders
- iv. Design a system for revenue sharing among stakeholders engaged in the protection and management of forests

## **Areas of Emphasis**

South Sudan Forest Corporation (SSFC) (strengthening)

- National Forest Development Fund (NFDF) (perfecting its operations)
- Forestry Development Consultative Forum (for key stakeholders)

# **10.0** Policies On Role Of Agriculture And Forestry To Socio-Economic Change

# 10.1 Agricultural employment for the female and male youth

Youth constitutes about two-thirds of the population and a significant proportion of the nation's poor and unemployed. They also represent a huge reserve of untapped labour resource needed to boost agriculture production, enhance food security and create massive wealth. Unfortunately, many youth shy away from agriculture or are reluctant to engage in farming.

#### **Problem Statement**

There is lack of a comprehensive strategy to attract the youth to engage and remain in the agriculture sector, which is usually avoided by the youth who prefer migrating to urban centres in search of blue and white collar jobs

# **Policy Statement**

Institute and facilitate strategies that will attract and empower youth to remain in the rural areas and engage in production, value addition and trade.

# **Policy objective**

- Minimize youth migration to urban areas by making rural areas more attractive for lifetime livelihoods
- ii. Ensure that the youth working in agriculture have access to basic social services
- iii. Empower the youth (young men and women) to proactively engage in commercial agricultural production, value addition and marketing

## Implementation framework

- Contribute and support the design and implementation of a Special Awareness Program to create awareness about business opportunities and promote agriculture as a career for the youth
- ii. Enhance youth interest and participation in agriculture through provision of adequate training in modern farming methods and other support services to increase productivity and value addition.
- iii. Support enhanced access to credit, land, and technology and market information for the youth
- iv. Establish a special fund for providing started capital and incubator projects for your interested in agriculture, value addition and marketing
- v. Collaborate with the ministry of Culture, Youth and Sport

# **Area of Emphasis**

• Special Youth Fund for providing started capital and incubator projects

# 11.0 Policies On Sustainable Agriculture, Environment And Climate Change

# 11.1 Sustainable Environment and Climate Change

#### **Context**

South Sudan is heavily dependent on rain-fed agriculture and has limited institutional and infrastructural capacities to cope with natural climate variability. Climate change will increase the frequency and intensity of extreme weather events such as droughts, floods and heat waves. Although there are no vulnerability and adaptation studies, prolonged and severe drought are known to have caused severe water shortage and crop failure. Climate change can also lead to outbreaks of human diseases as well as outbreaks of pests and emergence of new crop pests and diseases.

#### **Problem Statement**

It is obvious that climate change is already and will continue to affect agriculture production, productivity, diversity of crops suitable for different agro-ecological zones. So far there is no comprehensive policy guide on the mitigation measures needed to safeguard the sector so that livelihoods of rural dwellers and national food security is not adversely affected

## **Policy Statement**

Enhance policy measures meant to mitigate the adverse effects and impacts from climate change in the medium and long-term

## **Policy objectives**

- Understand the likely impacts of climate changes on the resilience of key crops, agro-forestry tree species and livestock in the different agro-ecological zones
- ii. Enhance adaptive capacity of communities in drought and flood prone areas
- iii. Support measures aimed at protecting vulnerable communities against climate change related diseases and pests outbreaks

## Implementation framework

- i. Collaborate with the Ministry of Environment in developing a National Adaptation Program of Action (NAPA) to identify priority activities that respond to their immediate needs to adapt to climate change.
- ii. Support and promote the development of intensive and diversified crops adapted to extreme climate risks
- iii. Map and Intensify research on crops and livestock most adapted to changing climatic conditions in different agro-ecological zones
- iv. Advocate for strengthening of agro-meteorological services

 National Adaptation Program of Action (NAPA) in collaboration with Ministry of Environment

#### 11.2 Green Economic Growth

The World Bank in its 2011 publication on "New Strategy- Inclusive Green Growth: The Pathway to Sustainable Development" defines Green Growth "that is efficient in its use of natural resources, clean in that it minimizes pollution and environmental impacts, and resilient in that it accounts for natural hazards and the role of environmental management and natural capital in preventing physical disasters". Pursuing a green growth path in essence chooses to operationalise sustainable development by reconciling the country's urgent need for rapid growth and poverty alleviation; with the need to avoid irreversible and costly environmental pollution. This means, for example, when opening new farms maximum care is taken to minimise loss of established vegetation, especially trees and to conserve wetlands. It may also require the adoption of minimum tillage practices, and use biological pest controls. South Sudan stands to benefit from global Climate Investment Funds, which other countries such as Ghana, Ethiopia and Nigeria have already benefited as a reward and compensation for pursuing environmental friendly production approaches.

## **Problem Statement**

The country lacks a coherent strategy to tap on international funds on climate change, which are supposed to reward and compensate countries and communities with innovative environmental management initiatives

## **Policy Statement**

A Climate Change Country strategy developed in line with major international protocols on environmental sustainability

## **Policy objectives**

- i. Adoption of agricultural practices that minimise environmental pollution
- ii. Promotion of agro-forestry husbandry practices
- Adoption of technologies with minimum contribution to harmful gas emissions

## Implementation framework

- i. Prepare a national policy and strategy for the promotion of green agriculture and green economic growth
- RSS to join international frameworks with funds and technologies for convention towards green agricultural practices

Green Growth Project proposal for submission to Climate Investment Funds

## 12.0 Policies On Social Justice

## 12.1 Gender mainstreaming in agriculture

The civil war has accentuated the role of women in South Sudan. The number of female-headed households has increased, as have the burdens of child and family care. But women are often highly marginalized. Gender disparities in access and ownership of asset are considerable. Social customs hinder women's mobility, constrain their participation in decision making and limit their involvement in productive activities.

#### **Problem Statement**

There are still strongly embedded cultural beliefs and practices which discriminate against women's right to equitable access to productive assets such as land and distribution of returns from incurred labour

## **Policy Statement**

Facilitate the implementation gender empowerment programmes in agricultural sector and influence the same in other spheres of the society

## **Policy objectives**

- i. Contribute to eradication of gender-based differences in social and economic activities, access to resources and decision-making process
- ii. Empower women with enhanced access to credit, land, and technology and market information

## **Implementation Framework**

- i. Support the development of the Rural Women Empowerment Program to enhance women's access to resources and information.
- ii. Strengthening the institutional framework to address gender issues in rural policies and programs through participatory approaches
- iii. Train women leaders in the communities to complement extension staff in service delivery
- iv. Support the formation of women's group to improve their access to extension services

- v. Support women's participation in the creation of rural value chains by encouraging and promoting female participation in agribusiness training and services
- vi. Encourage cultural, tradition norms and social customs that enable women's participation in decision making process and their ability to engage in productive and social activities in rural areas

• Rural Women Empowerment Program

# 12.2 Vulnerable groups and agriculture

The vast majority of the internally displaced persons (IDPs), returnees and excombatants need to be absorbed in agriculture. The peace and stability of the country cannot be sustained unless such vulnerable groups are provided with effective support to lead a decent livelihood. There are also the elderly (above 60 years of age) and those affected by chronic illness or disabilities whose livelihood is based on agriculture.

### **Problem Statement**

There is lack of coherent policy and strategy by government to address the needs of special groups such as war returnees and the aged who reside in the rural areas to engage in agriculture

## **Policy Statement**

Enhanced implementation of an established social welfare safety net for vulnerable groups in rural areas

## **Policy Objectives**

- i. Enhance food and nutrition security of vulnerable groups
- ii. Address current vulnerability situations in a holistic manner while at the same time reducing factors creating future vulnerabilities
- iii. Contribute to the resettlement and reintegration program

## Implementation framework

- Design an Agricultural Support Program to resettle and reintegrate exiled returnees and ex-combatants in rural areas together with relevant line ministries and partners
- ii. Support the designing of safety net or support program to meet the immediate food and nutrition needs of the vulnerable groups until their farm and non-farm operations start to generate adequate income
- iii. Support targeted input subsidy and other production-based entitlement programs for the poorest and most vulnerable

iv. Ensure that the land tenure and land use adequately addresses the needs of vulnerable groups

# **Area of Emphasis**

Rural Social Safety Net Support program

# 12.2 Mainstreaming HIV and AIDS in Agriculture

Incidences of HIV/AIDS, malaria and waterborne diseases and the corresponding deaths have made many families vulnerable and resulted in loss of productive family members. Traditional coping mechanisms have been weakened by the civil war and extreme poverty.

#### **Problem Statement**

There is lack of a formal support system for families whose livelihoods are affected by family members suffering from HIV/AIDS, which leads to income loss.

# **Policy Statement**

Promote holistic interventions at the household and farming systems through technological innovations and livelihoods support interventions

# **Policy Objectives**

- i. Promote access to special varieties of seeds with enhanced nutritional value compared to the traditional seed types
- ii. Enhance food and nutrition security of people living with HIV/AIDS
- iii. Address current vulnerability situations in a holistic manner while at the same time reducing factors creating future vulnerabilities

## Implementation framework

- i. Support the designing of safety net or support program to meet the immediate food and nutrition needs of people living with HIV/AIDS
- ii. Support targeted input subsidy and other production-based entitlement programs for the poorest including those living with orphaned children
- iii. Ensure that the land tenure and land use adequately addresses the needs of people living with HIV/AIDS

## **Area of Emphasis**

Gender and HIV Mainstreaming Policies and Strategies at MAFC&RD

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# 13.0 Policy Coordination and Monitoring And Evaluation (M&E)

## 13.1 Coordinating agricultural development with other sectors

A broad-based and inclusive agricultural development heavily depends on sectors that are outside the mandates of the Ministry of Agriculture, Forestry, Cooperatives and Rural Development. Nearly all line ministries, including Finance and Economic Planning, Commerce and Industry, Roads, Transport, Animal Resources and Fisheries, Irrigation and Water Resources, Environment, Internal Affairs, Energy and Mining, Health and Education among others, contribute directly or indirectly to agricultural growth and development. Hence, the MAFC&RD will use existing and newly initiated mechanisms for coordinating and ensuring that the needs of the agricultural sector are given priority by these other related sectors.

#### **Problem Statement**

Most of the policy statements developed by MAFC&RD will require a sector-wide approach to successfully implement their corresponding strategy.

# **Policy Statement**

Forged working linkage with other line ministries who serve the agricultural sector

# Policy objectives for consideration by partners

Among the specific policy objectives to be attained through collaboration include:

- i. Macro level (collaboration with Ministry of Finance and Economic Planning)
  - a. Government expenditure in agriculture increased to at least 10% of the budget
  - Import duties especially on agricultural inputs such as fertilizer, seeds, farm tools and equipment, and processing and value addition technologies are reduced
- ii. Sectoral level (with concerned ministries)
  - Ensure that trade/ market centres are established in strategic locations of the country, thereby reducing unnecessary transport and transaction costs
  - b. Advocate for construction of feeder roads to link producers to markets
  - c. Advocate for special incentives to expand information and telecommunication technologies in rural areas are provided
  - d. Cooperative societies and community-based organizations are established as vehicles of community empowerment, input distribution, output marketing, extension services, etc.
  - e. Domestic and border security is ensured to facilitate agricultural investment and trade

- f. Environmental Impact Assessment (EIA) guidelines and legislations for investment in agricultural production are developed
- g. Transmission and distribution of electricity to rural areas is expanded
- h. Health facilities in rural areas are expanded
- i. Eating nutritious, locally and sustainably-grown whole foods are supported and promoted
- j. Educational policy that addresses basic and functional literacy and ensures equity and quality in the delivery of education is promoted
- k. School gardening and backyard gardening are introduced and strengthened at primary and secondary level
- School feeding program to improve learning abilities and reduce dropout rates are promoted
- m. Gender equality and women's empowerment is ensured

#### Main approaches to coordination and collaboration

- At national level, the Food Security Council (FSC) will provide overall coordination guidance
- ii. FSC secretariat will give greater attention to long-term food availability issues and conduct policy analysis, on a periodic basis, to determine impact on production, marketing, value-addition and the likes
- iii. FSC secretariat will develop monitoring framework that includes annual specific data generation activities towards updating existing data as well as annual crops, livestock and fisheries surveys to update existing database

#### **Areas of Emphasis**

An Inter-Ministerial Committee to oversee the implementation of Agricultural Sector Policy Framework

# 13.2 Coordination of agricultural development between national and state level ministries of agriculture and forestry

The new ASPF (2012-2017) will lay the foundation for sustained improvement in agricultural productivity and output. Apart from creating a more conducive macroenvironment to stimulate greater private sector (includes small, medium and large farmers) investment in agriculture, the new policy framework will rationalize the roles of the different tiers of government in their promotional and supportive efforts to stimulate agricultural growth. Accordingly, the national government shall be responsible for the provision of a general policy framework and maintenance of a reasonable flow of resources into agriculture and rural development, while state governments will be primarily responsible for implementation of national policies in accordance with the specific conditions and needs of the state. Local or county

administrations will be expected to take over progressively the responsibilities of state governments.

# **Policy objectives**

- i. Ensure coherence and consistency of policies and their implementation across different tiers of government national, state and county level
- ii. Ensure that differences between states in commodity production, costs of production, access to market, poverty and food insecurity levels, etc. are taken into account in national resource allocations

# Implementation framework

- Ensure that the National Food and Agriculture Policy Framework guides the state food and agriculture strategy and crop value chain development programme
- Ensure that states actively participate in planning, M&E, resource/ budget allocation, human resource development and capacity development efforts of the national MAFC&RD
- iii. Support regular meeting and information sharing between national and state ministries of agriculture

# 13.3 Monitoring and evaluation

## **Problem Statement**

Lack of a comprehensive monitoring and evaluation can result to loss of tracking ability by the Ministry on the pace reached to attain the stipulated goals in the strategic plan which will be prepared to implement this policy document

### **Policy Statement**

Established and successfully operated Comprehensive Monitoring and Evaluation Framework by MAFC&RD

## **Objectives**

The goal of the M&E framework is to regularly assess the extent of public and private investments made, and the impact achieved in accelerating growth and development and on reducing poverty and food insecurity. Specifically, the M&E system should establish indicators to assess progress in:

- i. Policy implementation process and institutional capacity
  - Implementation of policies and programs
    - Number of bills and legislations approved
    - Number of projects and programs implemented by year
  - Building intuitional and human capacity
    - Number of R&D professional per 1000 persons

- Level of training of MAFC&RD at national, state and county levels (PhD, MSc, BSc, Diploma, etc.
- Gender proportion of MAFC&RD staff at all levels
- ii. Establishing an enabling policy environment
  - Macroeconomic stability
    - Inflation rates
    - Exchange rate movements (overvaluation rate)
  - Investment incentive
    - Incentives for investment in agriculture and agribusiness
    - Land tenure security
    - Access to finance
- iii. Responses to ASPF and support to agriculture
  - Proportion of farming households accessing
    - Improved seeds
    - Fertilizers (organic and inorganic)
    - Integrated pest management
    - Irrigation
    - Mechanization technology
  - o Investment in agriculture
    - Government spending as percent of agricultural budget
    - Government spending by function (Research, Extension. Irrigation, farm support, etc.)
    - Government spending by sub-sector (cereals, pulses and oilseeds, cash crops, horticulture, etc)
    - Private investment as percent of Agricultural GDP
    - Official Development Assistance as a share of total government spending
- iv. Impact on growth and performance
  - o Agricultural growth
    - Agricultural growth rate in relation to the GDP
      - Growth rate of yield versus inputs
      - Growth rate of area under cultivation
    - Growth rate of food and cash crops
  - Agricultural markets and value addition
    - Percent of population with access to markets with all weather roads
    - Percent of production lost due to post-harvest problems
    - Crops with established standards and grades
    - Demand outlook and long-term price projections for major commodities

- Agricultural trade
  - Growth rate of agricultural exports and imports
  - Food trade balance
  - Domestic and export and import parity prices
- Food security
  - Proportion of the population below minimum dietary energy consumption
  - Prevalence of underweight children under five years of age
  - Change in Integrated Food Security Phase Classification food severity scale

# Main purposes of the M&E system

- i. Provide constant feedback on the extent to which the ASPF is achieving its goals and objectives.
- ii. Identify potential problems at an early stage and propose possible solutions.
- iii. Monitor the efficiency with which the different components of the policy are being implemented and suggest improvements.
- iv. Effectiveness and food security
- v. Incorporate views of stakeholders participation brings greater ownership and accountability.

# Main approaches to M&E

- i. The Planning and Programming Directorate will develop sub-sector specific policies and strategies, and Food and Agriculture Policy Implementation Strategy (FAPIS) with investment program and/or plan of action (with short medium and long term perspective) in accordance with the Food and Agricultural Policy and Strategy in collaboration with state ministries of agriculture and through involvement and wider participation of stakeholders
- ii. The Directorate of Agriculture within state ministries of agriculture will identify specific goals and outcomes (bench marks) of sub-sector policies and define related indicators of M&E and identify sources of information for each indicator (sample surveys, secondary data, etc.)
- iii. At the county level, the County Department of Agriculture will be responsible for monitoring and evaluation
- iv. The MAFC&RD will assist communities to organize participatory monitoring and evaluation forums

# 13.4 Food and agricultural statistics service for monitoring and evaluation

Agricultural statistical service collects, summarizes, analyzes, and publishes

agricultural production and marketing data on a wide range of items including number of farms by size (e.g. small, medium and large), acreage, yield, production, and stocks of cereals, roots and tubers, oilseeds, cotton, fruits, selected vegetables, prices received by farmers, volume and value of inputs distributed, etc. Trade and consumption data in the form of food, feed, fibre and bio-fuel by different years, regions, etc. are also important components of agricultural statistics. Forecasts of supply, demand and prices have increasingly become critical as tools of early warning and disaster management. Food and agricultural data are crucial for monitoring and analysis, but analysts/assessors are faced with a number of serious constraints, including unreliable production data, limited capacity to analyze data and low frequency of agricultural censuses and surveys.

The National Bureau of Statistics (NBS) is the official statistical agency of the Republic of South Sudan. It is mandated to collect, analyze and disseminate all official economic, social and demographic statistics. There is also the Statistical unit under the Director General- Planning and programming. However, both have limited capacity and need to be strengthened.

## Main purposes

- i. Develop a sustainable, up-to-date and reliable food and agricultural statistical system
- ii. Ensure that data collection and analysis as well as report writing meets acceptable standards

# Main approaches

- i. Contribute to building food and agriculture statistics databank
- ii. Support and contribute to the regularization of agricultural census and national agricultural sample surveys
- iii. Support measures aimed at building the human and institutional capacity of NBS and the Statistical unit
- iv. Foster a stronger partnership and collaboration between NBS and the Statistical unit of the MAFC&RD

## **Area of Emphasis**

A comprehensive Monitoring and Evaluation Framework and System established and implemented under the coordination of MAFC&RD

## 14.0 Other Key Policies On The Wider Agricultural Sector

There are several other key policies that must be developed and implemented as part of a sector wide and holistic approach to the development of the agriculture sector such as rural finance and market development. Some of them, such as rural finance, livestock and fisheries, are under the auspices of separate ministries, which MAFC&RD will offer collaborative support to their preparation.

# **Area of Emphasis**

 Detailed Policy and Strategy Documents for Rural Finance and Agricultural Marketing prepared under the coordination of MAFC&RD

# 15.0 The Implementation of The Policy

# 15.1 Institutional Arrangement For Implementing This Policy

For this policy to be implemented, a set of institutional and legal arrangements will have to be established by the respective institutions under the coordination of MAFC&RD. An Agriculture Policy Implementation Strategy (APIS) will be prepared, whereby the funding requirements will also be identified.

# 15.2 Financing Of The Strategic Implementation Of The Policy

The government will commit financial resources to meet the goals of the ASPF. The Ministry, in collaboration with sectoral line ministries and the supporting institutional structures, will ensure that priority areas as identified in the APIS are allocated sufficient funding. Budgetary allocations will give particular attention to monitoring and evaluation mechanisms to ensure the efficient and effective implementation of this policy.

Effective implementation of the APIS will depend on the active involvement of the private sector in food marketing, commercial farming, food imports, and food processing. Reduction of poverty also depends on the expansion of employment in the private sector. The private sector will be encouraged to enhance investment in agriculture. In addition, the government will seek assistance from national and international partners interested in supporting the country's effort to develop agriculture and alleviate food and nutrition insecurity.

## THE IMPLEMENTATION OF THE POLICY

For this policy to be implemented, a set of institutional and legal arrangements will have to be established by the respective institutions under the coordination of MAFC&RD. There will also be an Agriculture Policy Implementation Strategy (APIS), whereby the funding requirements will also be identified. The strategy will guide funding priorities by the government, which commit adequate financial resources to meet the goals of the ASPF. The Ministry, in collaboration with sectoral line ministries and the supporting institutional structures, will ensure that priority areas as identified in the APIS are allocated sufficient funding. Budgetary allocations will

give particular attention to monitoring and evaluation mechanisms to ensure the efficient and effective implementation of this policy.

# Follow-up to this Policy Framework

A Framework for the Implementation of this Policy Framework and Funding Mechanism will have to be prepared.