Preparation of a Fisheries Policy for South Sudan Guide to Fisheries Policy







Republic of South Sudan Ministry of Animal Resources and Fisheries Juba

Directorate of Fisheries and Aquaculture Development



Healthy Livestock - Healthy People Sustainable Development

# Fisheries Policy for South Sudan 2012 - 2016

# February 2012

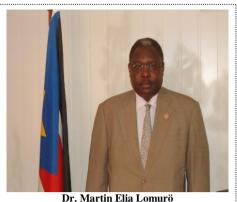




## A message from the Minister

South Sudan is a new country with abundant natural resources, among them fisheries. The fisheries sector is expected to grow in importance over the coming years and make a significant contribution to our future prosperity.

A comprehensive Fisheries Policy is a cornerstone in the development of a strong and vibrant capture fisheries and aquaculture industry, contributing to the economy of the country, food security, and the alleviation of poverty particularly in rural areas.



Minister of Animal Resources and Fisheries

This Fisheries Policy is the outcome of a long consultative process between a technical team at the Directorate of Fisheries Development and stakeholders in the fishing and aquaculture industries, Government bodies, NGOs and Development Partners. Strenuous efforts have been made to make a policy that is both realistic and inclusive, covering both the technical side of the Fisheries and Aquaculture, and the support functions necessary to administer and manage the sector. We have received assistance from the European Union ACP Fish II project in the preparation of this strategy, for which we are very grateful.

The policy document is also a response to the realisation that fisheries is a generally underutilised resource in South Sudan, in great need of clear and sensible guidance for its growth and management. For many years development efforts have overlooked fisheries, tending to concentrate on other natural resources. Aquaculture has received even less attention, despite the country having vast areas suitable for its development and there has been little emphasis on post-harvest issues or increasing the value of the catch. At the same time the capacity of the Government and the States is acknowledged to be weak, and it is a priority to strengthen their ability to administer and manage the sector.

The policy acknowledges that the existing data on which to base management decisions in fisheries is very weak. Catch statistics for capture fisheries are uncertain, and biological data on many species has never been collected. With this background of uncertainty this policy is formulated to be consistent with the FAO Code of Conduct for Responsible Fisheries which establishes principles and standards applicable to the conservation, management and development of all fisheries and also introduces precautionary, participatory and ecosystem based management systems for fisheries and aquaculture.

The responsibility for managing the fisheries of South Sudan will be a shared task. The principle of co-management of fisheries and aquaculture is enshrined in this policy. The indigenous community, the commercial and subsistence fishing and aquaculture industries, development partners, government and states all have their parts to play to maximise the value of the sector. For sector growth the National and States' Governments will create the enabling environment and the private sector will be the engine for growth. The Policy has identified partnerships, relationships, knowledge requirements and human resource needs in the sector, and indicates the path forward. We recognise the scale of the challenges ahead. It is now the responsibility of our Ministry and its Directorate of Fisheries and Aquaculture Development to put this Fisheries Policy into practice and work with all stakeholders to make it a success.

Hon. Dr. Martin Elia Lomurö (DVM;Mphil;MSc.Industrial Pharm;Cbiol/MIbiol;MBARQA) Minister of Animal Resources and Fisheries, Republic of South Sudan February 2012

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### **Preface by the Director General of Fisheries and Aquaculture Development**

South Sudan has a significant capture fishery in its major rivers and wetlands. This fishery is largely undocumented, due to a lack of catch statistics, resultant from a long period of instability before the Comprehensive Peace Agreement in January 2005, and subsequently from then until Independence in 2011. Despite the uncertainty about catch figures, by using data from comparable wetlands and rivers in East Africa where there is data available, it is possible to conclude that the capture fisheries of the South Sudan are almost certainly underexploited. Unfortunately no two wetlands or rivers are the same, and it impossible to accurately predict the Maximum Sustainable Yield that might be possible from these fisheries, merely that the current estimates of catches are significantly under those that would be expected from such a great area of wetland, lakes and rivers. That is not to say that there are not isolated areas of the country where overfishing has not already occurred, such as near urban centres and in some small lakes, and we must be careful to expand fishing activity without negative effects on these and other vulnerable areas.

Similarly with aquaculture there is great potential, but currently there is little aquaculture being undertaken in the country. Areas for aquaculture, significant in size, are available, but they have not been accurately mapped out and assessed, and neither have the suitability of native species and varieties of fish or other aquatic products for fish farming been ascertained. Other problems remain, such as feed supplies and manufacture for aquaculture, the protection of biodiversity and the environment for aquaculture and the lack of trained operatives available.

Even in post harvest there is much to be done, not only for bringing the quality of fish available for local sale up to a satisfactory level and to regional standards, but also for export to neighbouring countries. With increasing production from capture fisheries and aquaculture, post harvest issues will become more important and increasing the value of the catch will contribute greatly to improving livelihoods and income for those involved in the sector, and bring great benefits to the nation.

One of the reasons that there is so little data on the fisheries and aquaculture of South Sudan is that there has never been any significant research done on the sector. There are no dedicated research units or centres for fisheries or aquaculture and collection of statistics has been very random at the best of times. It is therefore a priority for the sector that these shortcomings are resolved, by establishing an Aquaculture Centre and a Fisheries Research Unit which will undertake basic statistics collection and research.

Because of the great uncertainty and lack of historical data on the capture fisheries and aquaculture of the South Sudan the development of the capture fisheries and aquaculture of South Sudan will have to be undertaken with the greatest caution, so as not to cause overfishing, either locally or nationally, nor to created environmental damage. It is the responsibility of the Government to manage the exploitation of renewable natural resources properly, so that future generations will be able to enjoy their benefits as do those now charged with their husbandry. For this reason the Directorate of Fisheries and Aquaculture Development will diligently apply the FAO Code of Conductfor Responsible Fisheries in which is contained the "Precautionary Approach" to the development of the capture fisheries. This principle is enshrined throughout this Policy Document. The Directorate will thus strive to establish effective mechanisms with the states for management of the resources of the country through involving those that use the resources in a participatory manner (comanagement) and for monitoring and enforcing regulations and ensure compliance with conservation and management measures agreed with the resource users. At the same time the Directorate will also apply the "Ecosystems Approach" to Fisheries Management, another important principle contained in the Code of Conduct for Responsible Fisheries.

Similarly the development of Aquaculture is also covered by the FAO Code of Conduct for Responsible Fisheries, as are Post Harvest Practices and Trade, and again the Directorate of Fisheries and Aquaculture Development will follow the FAO Codes of Practice for Aquaculture and other guidelines laid down, until its own Codes of Practice and guidelines can be prepared.

The South Sudan is gradually signing up to international treaties and protocols and it is possible that in the future the South Sudan will join the East African Community Apart from anything else the EAC treaty holds each member state (EAC). responsible for managing their own and shared aquatic resources in a sustainable manner. Other major treaties that are relevant to fisheries in South Sudan are the Abuja Declaration on Responsible Fisheries in Africa, the Convention on Biodiversity, the RAMSAR Convention (Wetlands), the Beijing Declaration (Gender), the United Nations Framework Convention on Climate Change (UNFCC) & Kyoto Protocol (2006) and various World Trade Organisation protocols and agreements on trade. Notably for fisheries the FAO Code of Conduct for Responsible Fisheries is derived from a series of international agreements and declarations leading to its adoption in 1995 by the FAO Conference. These and other various other treaties confer great responsibilities on the Republic of South Sudan, and through it onto the Directorate of Fisheries and Aquaculture Development, covering, inter alia, fisheries, aguaculture, trade, HIV/AIDS, the environment, climate change, wetlands management, gender issues, disposal of hazardous wastes, desertification, biosafety, transfers and introductions of species.

Locally the Directorate of Fisheries and Aquaculture Development is bound by the constitution to manage the fisheries resources of the country in a participatory and sustainable manner and the RSS MARF itself has declared policies covering the wise use of the fisheries resources of the South Sudan.

This 2012 revision of the 2006 policy was undertaken by a technical team from the Directorate of Fisheries and Aquaculture Development assisted by two experts provided by the ACP Fish II project of the EU. The 2012 policy review took a sector wide approach following the Logical Framework approach, looking at the present situation and the possible future development of fisheries and aquaculture in the light of the probable trends in fisheries development worldwide and regionally. Following a SWOT analysis in 2011 a thorough literature review was undertaken, coupled with wide consultation with ministries and departments in Government in Juba. Field visits away from Juba were made to confer with the administrations and other stakeholders there. Also covered were urban landing sites and markets and a large spectrum of peripheral stakeholders were also interviewed.

Two consultative workshops were arranged in January 2012, one for "Fisheries" and one for "States and fishing communities", so that formal consultations with large numbers of people could be undertaken by the Technical Team. More than 70 people attended the consultative workshops. A Validation workshop in Juba in February 2012 was attended by 40 high level technical people from Government and the States which produced recommendations on the draft fisheries policy document.

One of the major findings of the consultative process was that whilst there is perceived to be a great potential generally in the sector, the capacity, both human and institutional, of the Directorate of Fisheries and Aquaculture Development in RSS MARF and the Fisheries Administrations at all levels in the States continues to be very weak. Development efforts in the short term will have to concentrate on building capacity and strengthening institutions throughout the sector, in National Government, the States and the private sector. Only once the skills necessary have been acquired, the institutions created or strengthened, the staff recruited and the necessary recurrent and development budgets allocated, will it be possible to fully realise the potential of the sector. This may take some considerable time.

Overall this policy has been designed to be realistic, in the light of the constraints apparent, and also implementable, in that nothing that cannot be done is included as a priority. There are many activities that it would be desirable to do, but which realistically cannot be done. They remain in this policy as long term objectives and strategies, but are not prioritised in the implementation plan. Sustainability is also a problem where future funding is an issue; and the inclusion of activities, particularly those provided by our development partners, that cannot be locally funded once implementation is completed are not prioritised. This has resulted in a realistic if short policy, based on what can be done, rather than a wish list of unattainable objectives and unaffordable strategies.

Sarafino Aloma Francis. Acting Director General. Directorate of Fisheries and Aquaculture Development, RSS MARF

February 2012

# List of acronyms, abbreviations and technical terms

ACP	African, Caribbean and Pacific Group of States
Boma	A village, the smallest unit of local government
CBO	Community Based Organisation
CES	Central Equatoria State
CFO	Community Fisheries Organisation
COP	Code of Practice
County	Large administrative district in a state.
Dermestes sp	A type of beetle that feeds on, among other things, dried fish.
,	The larvae are more destructive than the adults
DG	Director General
DGIST	Dr John Garang Institute of Science and Technology
DOF	Directorate of Fisheries and Aquaculture Development
EAC	East African Community
EES	Eastern Equatoria State
ESIAs	Environmental and Social Impact Assessments
EU	European Union
FAO	Food and Agriculture Organisation (of the United Nations)
FP	Fisheries Policy
FTC	Fisheries Training Centre (at Padak)
GMP	Good Management Practice
GOSS	Government of South Sudan (now superseded by RSS)
HACCP	Hazard Analysis and Critical Control Point
HIV and AIDS	Human immunodeficiency virus and acquired immune deficiency
	syndrome
inter alia	among others
IT	Information Technology
IUU	Illegal, Unreported and Unregulated [fishing]
KE1	Key Expert 1
KE2	Key Expert 2
RSS MARF	Republic of South Sudan Ministry of Animal Resources and
	Fisheries (National)
Maws	Fish Stomachs (usually dried)
MCS	Monitoring, Control & Surveillance
MSY	Maximum Sustainable Yield
NGO	Non Governmental Organisation
Payam	A subdivision of a county of South Sudan
PLHIV	People Living with HIV and AIDS
QC	Quality Control
RAMSAR site	A protected wetland (From Ramsar in Iran, where the original
	treaty was signed)
RSS	Republic of South Sudan
SMARF	State Ministry of Animal Resources and Fisheries
SMART	Specific, Measurable, Attainable, Relevant and Time bound
SME	Small and Medium Enterprises
States	Refers to the 10 States of South Sudan under a federalised
	system of Government.

Sudd	The Sudd swamps (between Malakal and Bor) are a wetland area with a maximum water surface area in excess of 30 000 km <sup>2</sup> during the rainy season. A RAMSAR site.
SWOT	Strengths, Weaknesses, Opportunities, Threats
ТА	Technical Assistance
TAC	Total Allowable Catch
ToR	Terms of Reference
TT	Technical Team
TVET	Technical and Vocational Education and Training
UN	United Nations
UNFCC	United Nations Framework Convention on Climate Change
UNS	Upper Nile State
US	Under Secretary
WBGS	Western Bahr-el-Ghazal State
WES	Western Equatoria State

### A note on currency

In February 2012 1US\$ was worth 3.5 South Sudanese Pounds (SSP) in the market in Juba

## **1** Summary Table. South Sudan Fisheries Policy

Mission (RSS MARF)		ernational market	s for food securit	y, poverty alleviatio		access to credit and nomic development, the
Overall Objective for DOF	The best possible long term economic benefit to the South Sudan though effective management and sustainable exploitation of fisheries resources and aquaculture, whilst ensuring healthy ecosystems and the protection of species diversity and habitat.					
Policy Themes	Governance	Human Resources	Research	Capture Fisheries	Aquaculture	Fish Quality Control and Post Harvest
Goal	Effective and efficient delivery of policy objectives in an accountable and transparent manner for the benefit of all stakeholders in the fisheries sector	A well trained and competent workforce with the appropriate knowledge and skills for development of fisheries and aquaculture.	Research, collection, analysis and dissemination of good quality and up to date knowledge on Fisheries and Aquaculture in South Sudan	Sustainable fisheries production and development contributing to Economic Growth, Poverty Alleviation and Food Security	Sustainable aquaculture development and production contributing to Economic Growth, Poverty Alleviation and Food Security	An effective fish quality control and assurance system that meets international standards and raises the value of the products of fisheries and aquaculture
Specific Objectives	1. To produce a modern and robust legal framework for fisheries and aquaculture in South Sudan	1. To ensure that DOF and States' Fisheries Departments are fully staffed and funded	1. To improve quality and relevance of research in fisheries and aquaculture	1. To manage the fisheries resources of the South Sudan so as to maximise production and avoid overfishing	1. To attract private Investment to Aquaculture by creating an enabling environment	1. To reduce post harvest losses
	2. To improve the climate for internal and Foreign Direct Investment to fisheries and aquaculture	2. To strengthen extension services in the 10 states	2. To collect, collate and disseminate data on all aspects of fisheries and aquaculture throughout the country	2. To control overexploitation of fish stocks and eradicate IUU fishing	2. To attract funding for development of integrated Agriculture/ Aquaculture in rural areas	2. To ensure safety of fisheries products
	3. To improve cooperation between Government Departments and Institutions on crosscutting issues	3. To develop the skills and qualifications of the staff in DOF, in the 10 States and the private sector	3. To preserve indigenous knowledge, on fisheries	3. To increase production from under-exploited stocks and areas	3. To regulate the production of feed for aquaculture	3. To increase in per capita fish consumption from current low levels
Specific Objectives						

4.To enhance communications, data flow and coordination within Directorates of RSS MARF and between DOF and the 10 states	4. To monitor environmental changes affecting fisheries including climate change	4. To increase production from under-exploited stocks and areas	4. To control diseases in aquaculture & improve reporting	4. To develop appreciation of the role of capture fisheries and aquaculture in food security
5. To maintain a healthy environment and ecosystems	5. To improve information distribution, communication and technology systems	5. To develop a sport fishing industry	5. To control species introductions and transfers in Aquaculture	5. To increase the value of fisheries and aquatic products
6. To ensure sustained and profitable use of shared resources		6. To develop the aquarium trade	6. To enhance aquaculture in areas where irrigation schemes & dams are created	
7. To raise the profile of fisheries as a sector so as to obtain extra resources for the DOF and for States fisheries departments			7. To address environmental concerns regarding Aquaculture	
8. To combat HIV and AIDS in the workplace and in the industry				
9. To act on Gender Issues and the Rights of the Child				
10. To respond appropriately to climate change and natural disasters				
11. To improve occupational safety for fisherfolk				

### 2 Introduction

1. This Draft 2012 - 2017 Fisheries Policy is the result of an initiative of the Directorate of Fisheries and Aquaculture Development assisted by Technical Assistance from the ACP Fish II Programme, whose aim is to improve fisheries management in ACP countries so as to ensure that fisheries resources under the jurisdiction of these countries are exploited in a sustainable and equitable manner.

2. The Republic of South Sudan (RSS) is a new country with a new constitution and all government sectors are undergoing a transition, including the fisheries sector. There is need for a new and very different Fisheries Policy. The new fisheries laws are also in the process of being developed and this should lead to a solid legal foundation for the future.

3. The Directorate of Fisheries and Aquaculture Development (DOF) has a Southern Sudan Fisheries Policy produced in 2006. This policy was never comprehensively implemented for a variety of reasons, including a lack of capacity in DOF, the overtly ambitious nature of the document, and insufficient financial and institutional resources being placed at the disposal of DOF.

4. After 5 years it became apparent that the 2006-2011 policy needed updating, and modifying to take into account political and institutional changes in South Sudan. The major change politically has been independence in 2011, whereby South Sudan became an independent country with its own self funded institutions and constitution. The new constitution emphasises decentralisation of power and decision making to the states and down to the lowest levels of the administration and to the people, and the management of natural resources by the people. The principles of decentralisation of powers is not sufficiently incorporated in the 2006-11 Fisheries Policy and this affects the ways the strategies contained within it would be implemented.

5. The 2006-2011 Fisheries Policy also placed inadequate emphasis on comanagement as the key to management of capture fisheries and aquaculture, and failed to place the private sector squarely as the main engine for growth in the sector.

6. A new Fisheries Policy is required with a different emphasis. This new policy:-

- a) is consistent with the aims and ideals of the transitional constitution, including decentralisation of powers and co-management as a guiding theme through the whole sector
- b) embeds the principles contained in the FAO Code of Conduct for Responsible Fisheries in all activities and sub-sectors
- c) places the private sector as the engine for growth in the sector
- d) provides a coherent and participatory roadmap to the sector objectives, which can be seen and understood by all stakeholders from all sectors
- e) provides a sound basis for integration into sector wide and national planning
- f) facilitates the capture of funds to address the priority policy areas
- g) facilitates monitoring of progress towards achieving the stated objectives
- h) is realistic and implementable

7. The policy was developed from a process of data and opinion collection in a series of activities, including a literature review, consultations with stakeholders of all levels, visits to States, two consultative workshops (in Juba and Terekeka) and a validation workshop held in Juba in February 2012, to consider the First Draft of the Fisheries Policy.

8. During the consultative phase of the preparation of this policy it became apparent that the capacity of the DOF, the states and the other institutions involved with the management and the development of fisheries and aquaculture in South Sudan was substantially below that which was required to undertake the tasks required to achieve many of the objectives that are envisaged in this policy document. Furthermore there are some institutional pre-requisites to addressing long term objectives that simply do not exist at the moment, such as research centres for Fisheries and Aquaculture, laboratories for support to Fish Quality Control efforts, suitable training institutions and even adequate communications between states and national government. As time goes on these shortcomings will be overcome but it is optimistic to expect great advances in the short term.

### **3** Overview of fisheries and aquaculture in South Sudan

### 3.1 Capture Fisheries

9. Capture fisheries in South Sudan has been a neglected natural resource sector for many years. There has been no government organised management of the resources, statistics on the makeup of the catch have not been regularly collected and those published are known to be inaccurate. There has been very little research done, partly because there is no research unit or station for fisheries in the country.

10. FAO, an organization to whom statistics have been supplied in the past by the Sudanese Government, have published data, the latest for 2006, but in this data South Sudan is still included with the Sudan and the basis for the data provided to them is unknown, for no comprehensive statistics were regularly collected at that time of great instability. Recently some ongoing frame surveys in parts of the country have been undertaken under the Sudan Productive Capacity Recovery Programme (2008-2012)and the initial (unpublished) results of this have provided an idea of the concentrations of fishing activity in the areas where they have been done. Unfortunately much of the more productive areas in the country are yet to be surveyed.

11. The DOF does not collect its own fisheries statistics, and the states have no mechanism for data collection and collation, beyond a rudimentary licensing system that is far from comprehensive.

12. The FAO fisheries internet based database (<u>www.fao.org</u>)gives fisheries production in the Sudan for 2006 and from that the portion relevant to the South Sudan is

Location	Surface area (km2)	Fish potential (t/yr)	Fish landings (t/yr)	Percent Exploitation
Sudd Region & adjacent	30 000 (max)	75 000 (min.) 140 000	32,000	42%

areas	(max.)	

13. The Sudd swamps (between Malakal and Bor) constitute a unique wetland phenomenon. They lie between 6° and 9°30'N, and from 30° to 32°E, with a maximum water surface area in excess of 30 000 km<sup>2</sup>during the rainy season. This environment has high biodiversity, with floating, submerged and emergent macrophytes, and fisheries resources. Over 100 species of fish have been reported from this area, of which Distichodus spp., Gymnachus spp., Heterotis spp., Citharinus spp., Clarias spp., *Lates niloticus*, tilapias and other catfishes form the bulk of the catches.

14. Only the Sudd area is covered by the FAO data given above, (and its area seems to be underestimated, since it is probably more than 40,000km<sup>2</sup> at peak flood), lakes, the river Nile, and other tributaries and floodplains are not included. These additional areas may be as much as another 40,000 km<sup>2</sup>total area. Thus the total area available for capture fisheries is probably nearer 80,000km<sup>2</sup> for the whole country; however fishing is very seasonal with two thirds of the catch being caught during the rainy season from May to September (which also coincides with the worst time for drying fish).

15. The DOF, in its newsletters (assisted by the GIZ Fisheries Production and Marketing Project) haspublished other figures for fisheries production. These, whilst acknowledging the paucity of data suggest that the catch for the whole of South Sudan is some 30,000 to 40,000 tonnes<sup>1</sup>, with one third of this, mostly exportable species, going to Khartoum2, leaving 20- 30,000 tonnes for the South Sudan. GIZ also estimates that 2,500 tonnes of fish in imported from Uganda every year, with some imports from Kenya. This gives a per capita consumption of somewhere between 3 and 3.5kg/year. Where fishing occurs fish is a much more important part of the diet than in those areas away from water

16. With a production rate of probably at least 40kg/ha/yr from the Sudd, other wetlands, rivers and lakes, the Maximum Sustainable Yield (MSY) of the fisheries of the South Sudan, should be at least 180,000 tonnes (and have a value approaching 300 million US\$)3. Hence even very conservatively the current catch is significantly less than the likely MSY, and there are potentially huge economic benefits to be obtained by sustainably improving fisheries production from capture fisheries, but there remains much uncertainty due to the lack of data.

17. The number of fishers in the country is unknown, and there are, in addition, very large numbers of temporary or seasonal fishers, which makes estimating numbers difficult. Moreover a licensing system implemented in some states, seen by fisherfolk merely as a revenue collection scheme, encourages evasion. Figures available in the DOFDevelopment estimate between 10,000 and 15,000 fishers in the country.

18. Some of the States produce annual reports with catch statistics and other data. Not all of these are made available to DOF. Those States with easier communications to Juba, where the headquarters of DOF is situated tend to provide

<sup>&</sup>lt;sup>1</sup> Other estimates of production exist, some optimistic, of up to 300,000 tonnes (Water Department Strategic Plan 2006).

 $<sup>^2</sup>$  This trade has reduced considerably in 2011/2012 due to border tensions.

 $<sup>^3</sup>$  Based on an average production rate of 40kg/ha/yrand allowing for reductions of ~50% due to seasonal fluctuations in water cover.

more data than those further away. What reports are received at DOF are not collated into an annual report by DOF on the nation's fisheries.

19. Given the paucity of data on the entire fisheries sector, the DOF and the States will have to apply the precautionary approach to any developments whereby if there is a threat of environmental damage a lack of scientific certainty should not be used as a reason to postpone measures to prevent environmental degradation, or possible environmental degradation.

20. Management of the fishery in the States is delegated to the States whose capacity is low. Controls on fishing effort cover mesh sizes, sizes of twines, the forbidding of explosives and poisons and there is a licensing system. Enforcement is very patchy.

21. For all intents and purposes the fishery in South Sudan is an open access one, with no controls on numbers of fishers or entry. Open entry is an undesirable management regime, and always leads eventually to overfishing and the collapse of fish stocks.

### 3.2 Aquaculture

22. Aquaculture has not received the attention that could be expected from a countryso well endowed with areas suitable for the industry. Indeed no significant aquaculture initiatives have ever been undertaken anywhere in the country, and again there has been no applied research done in the country. There is in essence no commercial aquaculture industry in South Sudan in 2012 though some subsistence fishponds exist in the Southern States of the country. These are severely hampered by a lack of fingerlings, skills and feed availability.

23. There is no research station dedicated to aquaculture development, no hatcheries and very few trained individuals available to kick start the industry.

24. The only aquaculture research previously undertaken was in what is now in Sudan, to the North. There is one Experimental Fish Farm in the Sudan established in 1953 and totalling 60 ha of freshwater ponds. Research concentrates on Tilapia farming, and fingerling production of various carps. This station is of course now in a separate country.

25. With the large amount of low-lying wetland, the permanent year round water supply in most of the country and a booming population with a low per capita consumption of fish but increasingly better off financially the future for aquaculture is undoubtedly rosy. There is large potential for aquaculture development in Central Equatoria, Eastern Equatoria, Western Equatoria, Northern Bahar el Ghazal, Western Bahar el Ghazal and Warrap States, but the Departments' ability to assist the States and private sector in development is lacking.

26. Technology and skills transfer from neighbouring countries such as Uganda and Kenya is probably the best way to advance the sector in the short term, whilst the Department establishes research facilities under the RSS MARF umbrella and the staff compliment is made up with suitably qualified and trained personnel, both at HQ and in the States.

### 3.3 Fish Processing

27. The majority of the fish catch is smoke dried or sun dried. Where there is firewood the fish tends to be smoked, and where there is no firewood then the fish is sun dried, particularly in the Sudd, with the addition of salt in the wet season to reduce losses. This dried and smoked fish is transported to markets in Juba and the large towns where it is wholesaled to retailers who sell on in local markets. Fresh fish (~10,000 tonnes)<sup>4</sup> wasexported to the North by large scale fish traders using ice, and some considerable amount of fresh fish finds its way to large towns for sale retail and in the case of Juba to hotels and restaurants.

28. There are no accurate figures on the fish trade available. Observation in Juba Fishport would indicate that the trade is very significant and far larger than generally acknowledged.

29. There are no reliable estimates for post production losses in South Sudan. Subjective observation would indicate that most of the dried and smoked fish sold in Juba is relatively newly dried or smoked, and losses to insect pests are not significant, probably due to rapid turnover of stock. In rural areas some dried fish offered for sale is very poor quality and greatly deteriorated due to insect infestation and loss from breakages, with losses of probably 60-75%. Overall losses are probably comparable with countries elsewhere in East Africa.

30. Fresh fish losses are reported to be up to 50% in times of glut due to poor storage, lack of availability of ice and poor transport links.

31. FAO has produced estimates that up to 20% of the total catch may be lost.

### 3.4 Research & Training

32. With no dedicated research centres or units it is not surprising that no research is being carried out on Fisheries or Aquaculture, nor has been for many years. Until this is rectified the DOF has no capacity at all to undertake this kind of work.

33. Under the current structure of RSS MARF any research units established would be attached to the RSS MARF Directorate of Training, Research and Extension, rather than be part of DOF. This is not ideal, and would lead to division of responsibilities between Directorates, so should be avoided. Any Fisheries Research units either in aquaculture or capture fisheries should be under the direct control and management of DOF. This is what happens elsewhere in the world and there is no reason that South Sudan should be different. It is patently clear that the present structure is unworkable.

34. Dedicated training facilities for fisheries are limited to Padak Fisheries Training Centre (FTC), nominally under the RSS MARF Directorate of Training, Research and Extension. Padak FTC is soon to be transferred to the Dr John Garang Institute of Science and Technology in the in the Ministry of Education Science and Technology. No direct or indirect control over Padak FTC will then be maintained by RSS MARF.

35. In the past Padak FTC was used for a variety of training purposes in fisheries, but now that it is to be transferred away from RSS MARF its future role is uncertain.

<sup>&</sup>lt;sup>4</sup> This trade has declined in 2011 and 2012 due to border closures and other disputes

36. There are several universities in South Sudan and various courses in fisheries are offered, up to BSc level. Until recently these universities produced few graduates that went on to enter fisheries in the DOF or the States' administrations, but the situation is likely to improve with time. The courses offered do not include much practical work and are mostly theoretical. The universities do not send their students to work or research with either the RSS MARF or the SMARFs and this is a great opportunity missed to widen the scope of the curricula presently offered.

37. What is also needed is vocational training to provide the skills needed for the private sector in fisheries and aquaculture. Without this basic level of skills being available in the country it will be difficult to attract investment from the private sector and create employment. There are numerous vocational training establishments in the South Sudan and once a training masterplan has been prepared and implemented then it should be possible to develop appropriate skills based courses for the sector. The Ministry of Education heads the academic Technical and Vocational Education and Training while the Ministry of Labour leads the non-academic vocational training programmes and, in RSS MARF, the Directorate of Training, Research and Extension. Better communications between all these bodies and DOF is obviously necessary in the future.

38. There is no staff development plan for DOF or the States, nor any overall human resources masterplan for fisheries and aquaculture.

### 3.5 Current Legislation

39. The current legislation dates from the 1950sbefore the creation of the Republic of South Sudan and there is some doubt as to its legitimacy. It is contained in the Freshwater Fisheries Act 1954 which applies to all freshwater rivers and lakes in such parts of Sudan as the Minister of Animal Resources may, from time to time, notify in the Official Gazette (sect. 2). It includes various clauses including that no

The draft 2012 Fisheries Bill	inc
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person shall introduce nonindigenous species without a permit (sect. 4). Other provisions relate to use of gear (sects. 5-7), licences for boats (sect. 8) fishing licences (sect. 9), regulation making powers of the Minister (sect. 10) and offences (sect. 11).

40. There are also a set of regulations which have been promulgated under this act, but these are very out of date, and the fines for infringements are, for example, set a very low levels that prove no deterrent.

41. A draft Fisheries Bill was prepared in 2006 and has now been re-edited as the draft Fisheries Bill 2012. The bill is based on a template from elsewhere, and has been adapted to the South Sudan, including some references to marine organisms of which there are none in South Sudan.

It also includes large sections on licensing and control of Foreign Fishing Vessels, which is not relevant to the likely future situation in the South Sudan. Trawling is permitted under the draft legislation in some lakes, under rules about how close to the shore the vessels may operate.

42. Generally the Bill is all encompassing on controlling capture fisheries in a very top down manner, is very short on aquaculture and post harvest and does not directly mention either co-management, or the precautionary and ecosystems approaches to fisheries management as overarching principles.

43. The draft legislation does not acknowledge the constitutional obligations to decentralisation and devolving use and decision making to the users of the resources. This is necessary for implementation of co-management.

44. It will be necessary to ensure that these shortcomings are fully addressed before the bill is re-presented to Parliament for consideration.

### **3.6 Directorate of Fisheries and Aquaculture Development**

45. The Directorate of Fisheries and Aquaculture Development (DOF) is based in the Ministry of Animal Resources and Fisheries (RSS MARF) located on the outskirts of the capital Juba in a suburb called Gudele.

46. The Ministry is one of twenty-nine ministries in the government and the Minister is appointed by the President as are all senior civil servants.

47. In the Fisheries sector the Ministry performs the following functions and duties:

- Formulate legislation, regulations, policies and standards for the development of fisheries resources of South Sudan;
- Provide policy guidance and monitor performance of fisheries activities undertaken in South Sudan;
- Identify and promote investment opportunities in fisheries in South Sudan;
- Human resource training in the field of fisheries;
- Promote the improvement of fishing and fish processing technologies to improve the quality and quantity of fish catches in South Sudan;
- Ensure the sustainability of the fisheries sector through the development and enforcement of policies and regulations governing the exploitations of fish stocks;
- Promote and develop aquaculture fish production;
- Promote effective community-based extension programmes in fisheries production;
- Provide technical assistance and training to state governments and other local governments to build their capacity to assume their responsibilities for fisheries matters as defined in the Constitution and RSS policy.
- 48. The ministry is composed of the following directorates:
  - Directorate of Planning, Investment and Marketing
  - Directorate of Veterinary Services
  - Directorate of Animal Production and range Management
  - Directorate of Training, Research and Extension
  - Directorate of Fisheries and Aquaculture Development (DOF)
  - Directorate of Administration & Finance
  - Directorates of Special Projects

49. Of note is that the DOF does not have its own Training, Research and Extension section, this is being covered by the Directorate for Training, Research and Extension. The Fisheries Training Centre at Padak, established under the Southern Sudan Agriculture Revitalization Project (SSARP) is also part of the Directorate of Training, Research and Extension, and is in any case planned to be moved to the Dr John Garang Institute of Science and Technologyin the Ministry of Education Science and Technology. This is not a desirable outcome since this is the only centre providing the necessary types of training for fisheries in the country.

Control of the centre should remain with RSS MARF and it should be funded by National Government or Development Partners. The University could use it for attachments for research and training as required.

50. Neither does the DOF have a dedicated Planning Section, planning being part of by the RSS MARF Directorate of Planning, Investment and Marketing. Similarly legal matters are covered by the RSS MARF Legal officer and his team is responsible for all legal matters in the Ministry.

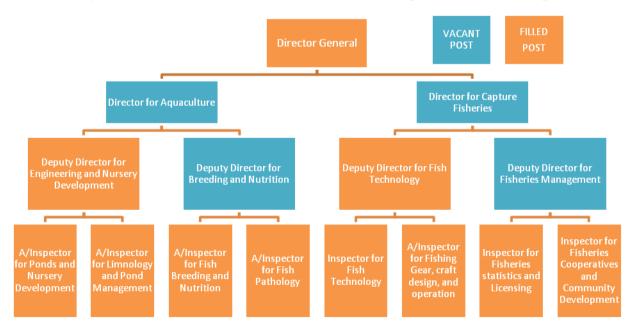
51. There is no doubt that the supporting Directorates in RSS MARF do not interact nor communicate sufficiently with the DOF, even though they share the same physical location in Gudele HQ. That the DOF does not have direct control and management of several important sections which have a fundamental influence on the way that fisheries and aquaculture are to develop is detrimental to activities in the sector. The current system does not work well. There is considerable room for improved cross Directorate cooperation in RSS MARF relating to fisheries.

52. Overall policy development and oversight is the primary responsibility of the office of the RSS minister responsible for the fisheries sector through the RSS MARF Directorate of Planning, Investment and Marketing. This function should not be mixed up with fisheries policy implementation which should be discharged from DOF.

53. The structure of the DOF in February 2012 is given below. It is headed by a Director General, with two Directors, one responsible for Capture Fisheries and one for Aquaculture reporting to him. Under these Directors are four Deputy Directors who are supported by Fisheries Inspectors and other technical staff. Of the 15 posts in the Directorate 4 are currently vacant, including the Director of Aquaculture Development and Director of Capture Fisheries, and two Deputy Directors. One staff member is on long term training

54. The staff organogram is given below.

Organogram of the Directorate of Fisheries and Aquaculture Development



55. Four of the seven senior posts are vacant, including two directors and two deputy directors.

56. The DG is Grade 2, Directors Grade 3, Deputy Directors Grade 4, and the Inspectors Grade 8. Assistant Inspectors are Grade 9. Of note is that 8 of the staff establishment, more than half, are ofsignificantly lower grades, Grade 8 and 9.

57. Given the responsibilities placed upon the DOF listed above, and particularly under the proposed Fisheries Bill 2012, it can be seen that the staff numbers are patently inadequate for the Directorate to carry out its existing mandate, nor extra development work.

### 3.7 States

58. The Republic of South Sudan operates a federal system with the ten constituent states. The State Governments are semi autonomous with their own Executive, Legislature and Judiciary. The Interim Constitution of South Sudan stipulates that the States' constitutions should be in conformity to that of RSS.

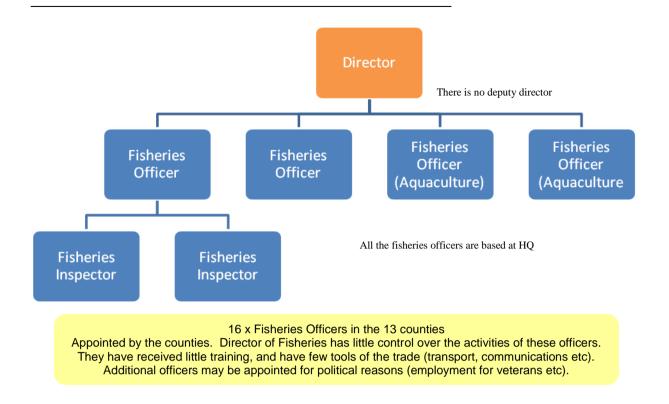
59. According to the human resources survey (April 2006)<sup>5</sup> there were 127 fisheries officers in Southern Sudan. Most however worked in garrison towns and were not directly involved with fisheries on the ground. Staffing data in fisheries in the States is not centrally collected at DOF.

60. Most Directorates of Fisheries in the States are in the State Ministry of Animal Resources and Fisheries (SMARF). Again like in the RSS MARF the Fisheries Directorates in the States are generally neglected and very mucha poor relation to the dominant Animal Resources related Directorates in the State Ministries. Director Generals in the SMARFS are without fail from an Animal Resources background. This has led to a lack of emphasis on fisheries and aquaculture in the states and the neglect of the sector is keenly felt by the fisheries staff in the States. The lack of a DG specifically for fisheries in the SMARFs is inimical to efficient implementation of fisheries projects and programmes. So that the fisheries sector is adequately represented, a DG for Fisheries would be advantageous in most SMARFs.

61. As an example of the staffing structure in States the Upper Nile State Fisheries Department organogram is given below (the Fisheries Department is in the SMARF, and the DG does not have a fisheries background or training in the sector).

Organogram of the Fisheries Department Upper Nile State

<sup>&</sup>lt;sup>5</sup>The survey was carried out by Computer Feeds Limited and Ecotech consultants for GOSS in April 2006.



62. There is poor cooperation and a lack of harmonisation of activities between RSS National and State governments, and this filters down to the Fisheries Departments in the States. Communications are extremely poor between the DOF and some of the States, and in some cases it is difficult even to contact the relevant officials in the states from Juba. (Note that there is no postal system, nor comprehensive telephone system in South Sudan in 2012, and mobile phones, across several sometimes incompatible service providers are the only reliable means of long distance communication. Internet is often unreliable and in the States many officers do not own personal computers).

63. There is also a common perception that the National Government acts as a "big brother" to the States' governments. The State governments on the other hand feel they are autonomous and act accordingly. Thus when it comes to the coordination of activities in fisheries, there have developed some misunderstandings on who owns what or who has a right to do what in certain areas. Such misunderstandings exist for fisheries and also apply for nearly all other sectors. In essence responsibilities are not clearly defined nor understood.

64. Presently the weak working relationship between DOF and States is hurting the sector. If this continues unresolved, the fishing communities and other stakeholders will suffer, since they are expecting some relevant support from the SMARF fisheries departments and local leaders. Moreover, due to the poor coordination and communications the moral of DOF and some of the States fisheries departments is getting low and affecting their work and contribution to development.

65. Furthermore, policies developed at RSS MARF level should be adapted by State governments as may suit their specific situations and conditions. Thus there will be need for continuous consultations between RSS MARF and State Governments. The important requirement is that all state policies must be in harmony with framework policies, such as this one, developed by RSS MARF.

66. The ability of many of the States Fisheries departments to carry out their functions is also constrained by a lack of resources, staff and shortage of skills. Although there may be an extension service of some sort existing, without trained staff with some means there is little extension going on.

### 4 Mandate and Policy Directions

### 4.1 Mandate

67. The overarching mandate for management of the Fisheries Resources of the Republic of South Sudan comes from the transitional constitution which acknowledges in the preamble:-

"... the need to sustainably and efficiently manage our natural resources for the benefit of the present and future generations and to eradicate poverty and attain the Millennium Development Goals".

68. The transitional constitution goes on to state (37.2.b) that all levels of Government shall

"... protect and ensure the sustainable management and utilization of natural resources including land, water, petroleum, minerals, fauna and flora for the benefit of the people of South[ern] Sudan"

69. Other principles contained in this Fisheries Policy can also be seen to be founded firmly on clauses in the transitional constitution, these include the principles of co-management of natural resources with communities (Para 165.6.j)

".... involve communities in decisions relating to the exploitation of natural resources in their areas ...."

and both the ecosystems approach to fisheries management and preservation of biodiversity (Para 45.2)

"Every person shall have the right to have the environment protected for the benefit of present and future generations, through reasonable legislative action and other measures that:

- (a) prevent pollution and ecological degradation;
- (b) promote conservation; and

(c) secure ecologically sustainable development and use of natural resources while promoting rational economic and social development so as to protect the bio-diversity of South[ern] Sudan."

70. The involvement of the private sector is also emphasised in the transitional constitution (37.2.c) where all levels of government are bound to

".... facilitate the development of the private sector, particularly indigenous entrepreneurs to establish and develop a viable private sector capable of participating effectively in reconstruction and development;"

71. This new policy is also guided by the National Poverty Reduction Strategy which has as its objectives:

a. Achieving economic growth (including sustainable management of natural resources);

- b. Human resource development;
- c. Improving infrastructure; and
- d. Ensuring social protection.

72. The RSS "South Sudan Vision 2040: Towards freedom, equality, justice, peace and prosperity for all", adopted by the RSS Council of Ministers on January 15, 2010 places fisheries as one of the Priority Programmes for Economic Development under the National Goal 3, Increased Prosperity.

73. At a lower level RSS MARF itself is mandated to perform the following functions and duties specific to fisheries,

- 1. Formulate legislation, regulations, policies and standards for the development of the animal and fisheries resources of South Sudan;
- 2. Provide policy guidance and monitor performance of livestock and fisheries activities undertaken in South Sudan;
- 3. Identify and promote investment opportunities in livestock and fisheries in South Sudan;
- 4. Human resource training in the field of animal production and fisheries;
- 5. Promote the improvement of fishing and fish processing technologies to improve the quality and quantity of fish catches in South Sudan;
- 6. Ensure the sustainability of the fisheries sector through the development and enforcement of policies and regulations governing the exploitations of fish stocks;
- 7. Promote and develop aquaculture fish production;
- 8. Promote effective community-based extension programmes in livestock and fisheries production;
  - and
- Provide technical assistance and training to state governments and other local governments to build their capacity to assume their responsibilities for animal resources and fisheries matters as defined in the Constitution and RSS policy.

### 4.2 Mission

74. The mission of the RSS MARF, which covers Fisheries is:-

To promote, regulate and facilitate animal production and fisheries, value- addition and access to credit and Regional and International markets for food security, poverty alleviation and socio-economic development, the operation areas is animal Resources and Fisheries Sector.<sup>6</sup>

# 4.3 Overall objective for Fisheries and Aquaculture Development in South Sudan

75. The overall objective<sup>7</sup> for fisheries in South Sudan is:

<sup>&</sup>lt;sup>6</sup>From the RSS website

<sup>&</sup>lt;sup>7</sup>Developed as part of the Policy Preparation exercise

The best possible long term economic benefit to the South Sudan through effective management and sustainable exploitation of fisheries resources and aquaculture, whilst ensuring healthy ecosystems and the protection of species and habitat.

### 4.4 Guiding Principles

76. The guiding principles under which this Fisheries Policy 2012- 2017 has been prepared and will be implemented by DOF are given below.

Theme	Guiding Principles
Values	DOF will strive to safeguard and promote the values and mission of the Government and People of South Sudan as outlined in the constitution.
Integrity	DOF will act with honesty and adhere to the highest standards of moral and ethical values and principles in our personal and professional behaviour. We hold ourselves accountable for our words and our actions.
Poverty	Poverty is abhorrent in the 21 <sup>st</sup> Century and its eradication is a priority.
Inclusiveness	It is important to involve all stakeholders, including the private sector, the community sector and the general public in all fisheries related initiativesin accordance with procedures established by common agreement.
Linking the local and the global	Economic and social issues in fisheries, local and global, are so interlinked that DOF will act at all levels, from the local to the national and ultimately to the regional and global.
Change and risk	DOF will adapt continuously and remain relevant as conditions change and the country develops.
International obligations	DOF will implement and comply with the terms and obligations in all international agreements, protocols and treaties that are ratified by South Sudan
Relationship between the Department and the States	DOF shall provide assistance and guidance in Fisheries and Aquaculture Developments in the States but the States shall be the leaders in extension, enforcement and development activities in their geographic areas.
	The private sector shall be the engine for growth. A dynamic private sector, operating in a properly functioning competitive market system, creates jobs and income, generates wealth and helps ensure that resources are used efficiently.
Relationship with	DOF and the States' Administrations shall endeavour to provide an enabling environment for the private sector.
the private sector	DOF and the States' Administrations will not engage in commercial activities nor commercial partnerships with the private sector.
	DOF and the States' Administrations will not involve themselves in direct financing of fisheries investment, nor provide direct subsidies to the private sector.
Relationship with	DOF seeks genuine partnerships with development partners,

Theme	Guiding Principles
Development Partners and non- state actors	including Donors, NGOs, CBOs and others to work together on fishery development related problems facing the RSS, based on mutual respect, acceptance of autonomy, independence, and pluralism of opinions and positions. This will require accountability and transparency by the development partners, regular monitoring and reporting to DOF and the States, and oversight of activities by DOF so that the needs of the sector are addressed appropriately.
Management of Capture Fisheries and Aquaculture	Participatory Management, though a decentralisation of powers to the users of the resources, is the keystone of the management and development of capturefisheries & aquaculture. DOF shall adhere to the principles laid down in the FAO Code of Conduct for Responsible Fisheries Management, including <i>inter alia</i> : the Precautionary Principle, the Ecosystems Approach, and Responsible Fish Utilisation, and their associated Codes of Practice. Management of fisheries resources shall be guided by the best available fisheries statistics.
Gender & Rights of the Child	All programmes and activities undertaken by DOF will be gender sensitive and gender responsive and the rights of women and children as laid down in the constitution upheld.
HIV/AIDS	AIDS is a chronic, life threatening disease with significant political, social, economic and human rights implications. DOF commits itself to minimising these implications in the sector through compliance with national and international HIV/AIDS policies and strategies.

### 4.5 Target Beneficiaries

- 77. This Fisheries Policy targets a wide variety of beneficiaries including:
  - The Government of RSS, the Ministry of Animal Resources and Fisheries (RSS MARF) and the Directorate of Fisheries and Aquaculture Development (DOF).
  - 2) The Governments of the 10 States, their Fisheries Departments and their staff.
  - 3) County, Payam and Boma institutions, CBOs, urban authorities and local customary leaders.
  - 4) Development Partners and NGOs
  - 5) Fisherfolk (and their dependents) throughout the Republic of South Sudan, both full time and part time.
  - 6) Service providers to the fisherfolk of the Republic of South Sudan, including firewood suppliers, transport providers, blacksmiths, fishing gear suppliers, engine suppliers and repairers, and boat builders.
  - 7) Fish farmers (and their dependants), service providers to the fish farming industry, including hatcheries, fish feed manufacturers, and transport services.

- 8) Fish processors and buyers, including fish smokers, dryers, fresh fish traders, their transport providers (land and air) and general service providers to the industry.
- 9) The aquarium fish industry
- 10)Fish consumers and institutional users (hotels etc) of fish and fisheries products, tourism industry (sport fishing) etc
- 11)Regional and international stakeholders in the Nile basin, and in the global environment.

### 5 The 2012-2017 Fisheries Policy. Objectives and Strategies

78. There are six policy areas in this Fisheries Policy, three of which tend towards administrative and supportive functions and provide a solid and stable framework for the implementation of the strategies for the other three, which are technical policy areas. Without the successful completion of objectives and strategies under the administrative and supporting policy areas, there will be little success in implementing the various objectives and strategies contained in the technical policy areas.

79. Administrative and Supporting policy areas are:-

- a) Governance
- b) Human resources
- c) Research

80. Technical policy areas cover:-

- a) Capture Fisheries
- b) Aquaculture
- c) Post Harvest

81. The policies and strategies under each policy area are presented in tabular format to enable better understanding of their context and to make them more readable.

82. Where a policy is a priority now or in the next 5 years this is indicated by a large  $\checkmark$ 

83. Where donor or external assistance or support (external to DOF, RSS MARF or the States) is going to be required to carry out the strategy this is indicated by a large  $\checkmark$ 

### 5.1 Policy Area 1. Governance

Key Issues

- Good governance is the key to the future prosperity of the sector.
- The legislative framework for fisheries is not (in 2012) sufficiently developed to allow for co-management of resources, the implementation of the FAO Code of Conduct for Responsible Fisheries and future international obligations.
- The draft 2012 Fisheries Bill needs much modification before being presented to parliament.
- The institutions involved with fisheries are undeveloped, both at RSS MARF and in the States, and at lower levels of government also.

- The transitional constitution demands the devolvement of management of natural resources to States and the users of these natural resources; but many of these administrative bodies do not have the skills and knowledge to adequate manage their resources. RSS MARF and the States will have to work in a participatory manner with other fisheries stakeholders to build strong institutions and ensure that control systems and information systems are in place functioning effectively and efficiently for a better fisheries and aquaculture sector.
- South Sudan shares its water resources with several other countries, most notably Uganda to the South and Sudan to the North. This will require cooperation in the future on the use of water.
- Locally there are multiple water users and no system of reducing conflict between them is yet established, and the development of better communications between stakeholders is paramount.
- The private sector will be the engine for growth in fisheries in South Sudan but there are few means to attract private sector investment to Fisheries and aquaculture, and the land tenure system is not sufficiently robust to protect commercial investment in aquaculture.
- DOF has to incorporate into its activities (mainstream) policies on HIV and AIDS, Gender and the Rights of Children. There is currently little information on any of these matters in Fisheries in South Sudan.
- The fisheries sector does not get the priority it deserves in allocation of funds and resources, compared to its importance in the economy and potential for growth.

### GOAL

# Effective and efficient delivery of policy objectives in an accountable and transparent manner for the benefit of all stakeholders in the fisheries sector

Objectives	Strategies	Priority	External inputs
1. To produce a modern and robust legal framework for fisheries and aquaculture in South Sudan	1. Revise the Fisheries Bill, paying attention to Aquaculture and post harvest issues as well as capture fisheries, and incorporating decentralisation of powers, co-management and the Precautionary Approach to sustainable fisheries	✓	~
	2. Delineate responsibilities and structures of National Government (RSS MARF), State Fisheries Departments, Counties, Village and Payam councils, Communities and Co-management structures	~	$\checkmark$
	3. Prepare appropriate regulations under the Fisheries Bill covering obligations under international protocols and standards for Fisheries, Aquaculture and Post Harvest, including operational regulations	~	$\checkmark$
	4. Regularly review regulations particularly levels of fines, penalties and		

Objectives	Strategies	Priority	External inputs
	fees; and gear restrictions		•
	5. Enshrine in the legislation the principle of a limit to entry to capture fisheries so as to comply with international instruments	~	
	1. Harmonise import taxes and levies with other EAC states		
2. To improve the	2. Prepare an Investment Guide for fisheries and aquaculture in South Sudan	$\checkmark$	$\checkmark$
climate for internal and Foreign Direct Investment (FDI) to fisheries and	3. Assist to develop third party involvement in matching grant and soft loans for entrepreneurs through commercial banks and finance institutions	$\checkmark$	
aquaculture	4. To negotiate EAC access protocols for SS fisheries products	$\checkmark$	
	5. Develop with the Land Commission an appropriate land tenure system for private fish farms and hatcheries	$\checkmark$	$\checkmark$
3. To improve cooperation	1. Prepare a development master plan for Fisheries including all states, resources and distinct ecosystems	$\checkmark$	$\checkmark$
between Government Departmentsand	2. Regularly timetable consultations with Ministries and Departments on issues that affect Fisheries	$\checkmark$	
Institutions on crosscutting issues	3. Form a joint committee on water use covering priority uses, protection, sustainable development and increasing productivity	✓	
	1. Establish a Fisheries Information System / database at RSS MARF and DOFs at States level	$\checkmark$	
4. To enhance communications, data flow and	2. Produce an Annual Work Plan and Fisheries Annual Report for DOF and circulate both, internally in RSS MARF and widely amongst stakeholders	$\checkmark$	
coordination within Directorates of RSS MARF and between DOF and	3. Develop a system of communication with each of the Fisheries Departments in the 10 states allowing constant flow of data and information	$\checkmark$	
the 10 states	4. Improve internal communication and cooperation within RSS MARF between Directorates with responsibilities that influence or affect Fisheries and Aquaculture	$\checkmark$	

Objectives	Strategies	Priority	External inputs
5. To maintain a healthy environment and ecosystems	1. Adopt measures to prevent environmental damage to aquatic systems through pollution and environmental degradation		
	2. Ensure that compulsory ESIAs are undertaken for all developments that affect fisheries, including large scale aquaculture developments	$\checkmark$	
	3. Observe all International Treaties and Protocols on the Environment and Biodiversity	$\checkmark$	$\checkmark$
6. To ensure sustained and profitable use of shared resources	1. Ensure representation by DOF in all Transboundary negotiations and in the preparation of agreements with other jurisdictions	$\checkmark$	
	1. Develop media and other publicity to enhance the profile of fisheries in South Sudan	$\checkmark$	
7. To raise the profile of fisheries as a sector so as	2. Within Government institutions maintain a presence on all committees, donor groups and other groups to present fisheries as an important development sector with high potential for growth and poverty alleviation	~	
to obtain extra resources for the DOF and for	3. Higher emphasis on fisheries in SMARFs through the establishment of DG posts specifically for fisheries	$\checkmark$	
States fisheries departments	4. Develop, in conjunction with the SMARFs, a consistent structure for DOFs and Fisheries Departments across all states.	$\checkmark$	
	5. Develop a position paper on the advisability of establishing a RSS National Fisheries Authority, independent of RSS MARF for future consideration		
8. To combat HIV and AIDS in the workplace and in the industry	1. DOF to follow overarching Government guidance on HIV and AIDS and to mainstream HIV and AIDS in all activities, whilst enumerating baseline data	$\checkmark$	
9. To act on Gender Issues and the Rights of the Child	1. DOF to follow overarching Government guidance on Gender and the Rights of the Child and to mainstream Gender and the Rights of the Child in all activities, in conjunction with the Ministry of Gender and Social Welfare and the Ministry of Education		

Objectives	Strategies	Priority	External inputs
10. To respond appropriately to climate change and natural disasters	1. Research into and develop policy advice to contribute to wider government responses to climate change and disaster management		
11. To improve occupational safety for fisherfolk	1. Develop a Small craft safety programme with the Ministry of Transport	$\checkmark$	

### 5.2 Policy Area 2. Human Resources

#### **Key issues**

- Development of human resources in fisheries is central to the development of the whole fisheries sector. Without a sufficiently skilled cadre of workers the industry cannot flourish. Currently the DOF is understaffed and has vacancies in its establishment. State fisheries departments are similarly understaffed.
- There is an urgent need for training and skills development at all levels, including Local Management Bodies, in co-management and the devolution of responsibility of fisheries management to the users of the resources, and in the private sector.
- As time moves on the knowledge and skills required in the sector will change and training programmes must adapt to take into consideration these changes. Constant upgrading of skills will be required for all staff involved in the sector.
- Local fisheries training facilities are presently limited to the Padak Fisheries Training Centre and there are some courses in the Universities, though there are numerous vocational training schools and other centres that can be used for training. These are insufficiently prepared for future needs and should be bolstered.
- The Padak FTC is planned to be moved to the Dr John Garang Institute of Science and Technology in the Ministry of Education Science and Technology. This is not a desirable outcome since this is the only centre providing the necessary types of training for fisheries in the country.
- Training for many of the skills required by the DOF staff is not available in South Sudan, and is unlikely to be for some years so will have to be sought overseas.

#### GOAL A well trained and competent workforce with the appropriate knowledge and skills for development of fisheries and aquaculture.

Objectives	Strategies	Priority	External inputs
1. To ensure that DOF and	<ol> <li>Calculate and source budget requirements</li> </ol>	$\checkmark$	
States' Fisheries Departments are	2. Recruit suitably qualified staff to fill vacant posts in existing structures	$\checkmark$	

Objectives	Strategies	Priority	External inputs
fully staffed and funded	3. Prepare a Human Resource Development Plan for Fisheries Directorate and the 10 states based on fisheries requirements ( <i>not geographical boundaries</i> <i>or population</i> )	~	~
2. To strengthen extension services	1. Involve National Government, Development Partners and NGOs in assistance to the 10 States in strengthening their Extension services	$\checkmark$	$\checkmark$
in the 10 states	2. Recruit suitable staff to fill the posts of Extension workers	$\checkmark$	
	1. Develop a staff training plan for DOF and the 10 States, including TORs for all staff	$\checkmark$	
	2. Form a committee from DOF, States and academia to guide Fisheries Training in South Sudan		
	3. Improve contacts with Universities in South Sudan regarding diploma, graduate and post graduate training	$\checkmark$	
3. To develop the skills and qualifications of the staff in DOF, in the 10 States and the private sector	4. Work with Technical Institutes and Vocational Training Centres regarding skills development in ancillary industries (fish farming, boatbuilding, refrigeration etc)	$\checkmark$	$\checkmark$
	5. Liaison with Development partners to identify and fund appropriate training opportunities overseas where facilities do not exist in South Sudan	$\checkmark$	$\checkmark$
	6. The RSS MARF training centre at Padak strengthened so as to be capable of satisfying the basic skills development of DOF and the 10 states. (It is not desirable that this FTC leaves RSS MARF control)	~	✓
	7. Develop curricula relevant to the needs of the fishing and aquaculture industries for universities, TVET, Padak FTC and in schools	$\checkmark$	$\checkmark$
	8. Develop a system of certification of training courses and programmes to ensure that only certified staff are employed in government and industry		
	9. Undertake a gender sensitive training needs assessment for fishers, aquaculturalists and processors (the private sector)	$\checkmark$	
	10. Develop appropriate courses for fisheries for the private sector in TVET	$\checkmark$	$\checkmark$

Objectives	Strategies	Priority	External inputs
	centres throughout the country, particularly in business management and basic technical skills for women		
	11. Literacy and other vocational programmes in rural areas, where fisherfolk communities miss out on formal opportunities in education		

### 5.3 Policy Area 3. Research

#### Key Issues

- There are serious gaps in the knowledge of the fisheries resources of South Sudan, including catches, species involved, fish biology and potential for resource utilisation; this lack of data is a serious constraint to proper fisheries management.
- DOF and the States are limited in their ability to collect any data at all, due to capacity problems, funding and skills shortages.
- No funds are allocated for fisheries research at all and there is no fisheries research unit or aquaculture research centre. Even outside of Fisheries, in the universities and colleges, there is little research being undertaken on fisheries or related fields.
- Aquaculture particularly has research and training needs that can only be provided by some form of aquaculture research and demonstration unit.
- The personnel to staff either a Fisheries Research Unit or an Aquaculture Research Centre are not available at the moment in the country. They will need to be recruited and trained.
- Some environmental effects of development in other sectors, and by other water users, such as agriculture, irrigation and urbanisation are not being monitored.
- No information on fisheries is disseminated widely in the country. There is very little awareness of fisheries and aquaculture outside of those immediately involved in the sector.

#### GOAL

# Research, collection, analysis and dissemination of good quality and up to date knowledge on Fisheries and Aquaculture in South Sudan

Objectives	Strategies	Priority	External inputs
1. To improve quality and relevance of research in fisheries and aquaculture	1. Establish a dedicated Aquaculture Research Unit containing a modern hatchery in RSS MARF, which will cover, inter alia, methods, species, feeding regimes etc for fish farming	~	~
	2. Establish a dedicated Fisheries Research Unit in RSS MARF, covering, inter alia, biological aspects of commercial fish, data collection and collation, fishing	$\checkmark$	$\checkmark$

Objectives	Strategies	Priority	External inputs
	methods etc in the commercial capture sector		
	3. Establish an independent Fisheries Research Council to guide needs based research in RSS MARF research units and in higher level educational institutions in South Sudan		
	4. Update existing university curricula to make research done there more relevant to the needs of the fisheries sector in South Sudan		
	5. Improve linkages with international research institutions for research and collaborative programmes on fisheries and aquaculture	✓	$\checkmark$
	1. Undertake a baseline frame survey on fisheries throughout the country	$\checkmark$	$\checkmark$
2. To collect, collate and	2. Develop a comprehensive and harmonised statistics collection system through the 10 states	$\checkmark$	$\checkmark$
disseminate data on all aspects of	3. Improve reliability of statistical data by improving the frequency of collection and better collation of statistics		
fisheries and aquaculture throughout the country	4. Improve dissemination and the regularity of published statistical data on fisheries and aquaculture	$\checkmark$	
	5. Undertake basic research on fish biology of commercial species in capture species so as to inform management policies and respond to identified risks		
3. To preserve indigenous knowledge, on fisheries	1. Establish a database of traditional knowledge of fisheries through the DOF	✓	
4. To monitor environmental	1. Improve monitoring of changes in the environment and their effect on Fisheries and Aquaculture		
changes affecting fisheries including climate change	2. Establish a Hydrology section in the Fisheries Research Unit, with sufficient equipment and staff to undertake routine environmental monitoring		

Objectives	Strategies	Priority	External inputs
5. To improve information distribution, communication and technology systems	1. Produce a DOF Annual Report of Activities including all data on fisheries, aquaculture and post harvest	$\checkmark$	
	2. Create a DOF Fisheries Website within the RSS MARF website, as a publically available depository for all information on Fisheries issues in South Sudan		
	3. Distribute all data back to the users of the resources, including local management bodies		

### 5.4 Policy Area 4. Capture Fisheries

#### **Key Issues**

- Statistics on capture fisheries are unreliable or do not exist.
- The capture fisheries of South Sudan are estimated to provide 40,000 tonnes of fish to the country but contributing less than 1% of GDP. There is probably a potential for 180,000 tonnes production, so the fishery is still under-fished. This will provide economic benefits and food security in the future. Country mapping to identify the under-fished areas is required.
- The fishery is open access and this is undesirable, some form of restriction on access will have to be designed in the future to avoid future conflicts over resources.
- The licensing system is haphazard and ineffective though all gears should in principle be licensed.
- There is no control of IUU fishing.
- Decentralised management of resources and co-management is the desired future management regime for all the resources of the country, through the establishment of Local Management Bodies in the states, and is obligated through the constitution. This requires a legislative base, a sound knowledge of the resources, must be transparent in its allocation of rights, and must be inclusive of all stakeholders in the area.
- Current management bodies are extremely weak, almost non existent. There is little knowledge of specific resources.
- There is a lack of co-ordination between the various bodies involved in fisheries in South Sudan.
- The principles contained in the FAO Code of Conduct for Responsible Fisheries will be upheld by the DOF, including the sustainable use of fisheries resources and the ecosystems approach to fisheries management.
- The fishery is generally still an artisanal industry with few large scale commercial enterprises. Those larger enterprises that did exist exported fish to the Sudan in the North<sup>8</sup>, but now tend to bring fish to the population centres in the South, notably Juba. Ice is sourced in Juba.

<sup>&</sup>lt;sup>8</sup>This trade has declined in 2011 & 2012 due to border tensions

- The private sector lacks investment capital and government will not get involved directly in fish production or marketing.
- There are a series of international treaties and other obligations, including those relating to transboundary and shared resource issues in fisheries that need to be complied with by South Sudan.

#### GOAL Sustainable fisheries production and development contributing to Economic Growth, Poverty Alleviation and Food Security

Objectives	Strategies	Priority	External inputs
	1. Implement the FAO Code of Conduct for Responsible Fisheries (CCRF) including the Precautionary approach, ecosystems approach and other related guidelines	~	~
	2. Promote co-management of all fish stocks and resources	$\checkmark$	$\checkmark$
	3. Promote co-operatives, fisheries associations and management committees	$\checkmark$	
	4. Facilitate capacity building for co- operatives, fisheries associations and management committees		
1. To manage	5. Develop conflict management mechanisms to find commonly acceptable solutions for opposing interest groups		
the fisheries resources of the South Sudan so	6. Apply a participatory approach to decision making in all fisheries issues		
as to maximise production and avoid overfishing	7. Allocate fisheries resources fairly between competing users and interest groups so as to reduce conflicts		
avoid overnsning	8. Regular review of the effectiveness and relevance of management tools used to control effort and harvesting of wild resources (licensing, closed areas etc)		
	9. Establish a participatory MCS system and control the use of illegal fishing methods and gears through education, training and effective inspection & enforcement to internationally established codes and standards	~	~
	10. Develop with the co-managers, revolving 5 year management plans for all important fisheries including closed areas, no fishing zones, and protected areas	$\checkmark$	$\checkmark$
2. To control overexploitation of fish stocks and	1. Design and introduce a system to control open access to fisheries throughout the country		

Objectives	Strategies	Priority	External inputs
eradicate IUU fishing	2. Improve surveillance and control of fisheries to ensure that regulations (particularly related to fishing methods and licenses) are being enforced	$\checkmark$	$\checkmark$
3. To increase	1. Identify areas where stocks of fish are underexploited	$\checkmark$	
production from under-exploited stocks and areas	2. Introduce fishing methods suitable to exploiting underexploited stocks to those areas where they exist		
4. To develop	1. Identify, and with the agreement of stakeholders dedicate water bodies and areas for sport fishing activities		
a sport fishing industry	2. Enforce licensing and reporting in Sport Fisheries		
	3. Advertise sport fishing potential as an adjunct to tourism		
5. To develop the aquarium trade	1. Permit the issuing of licences for aquarium fisheries under strict controls of methods of collection and export		

# 5.5 Policy Area 5. Aquaculture

## **Key Issues**

- There is very little aquaculture being undertaken in South Sudan at the moment, though there is a very great potential in many areas.
- Dams and irrigation schemes in the future will also provide significant opportunities.
- Aquaculture can provide food security for rural populations as well as income and employment. Aquaculture can also be utilised for enhancement of protein intake for people living with HIV and AIDS through integrated aquaculture systems.
- There is currently little private sector investment in Aquaculture and the government will not directly invest, limiting itself at most to schemes through third parties.
- The existing legislation regarding Aquaculture is limited and Codes of Practice are not yet formulated. Until they are the DOF will apply the FAO COPs.
- Land tenure remains a problem since this is important for investment.
- Aquaculture development requires regulation and registration of fish farms but the mechanisms and capacity to do this in the states is lacking.
- There are no hatcheries or demonstration fish farms.
- There is no training institution concentrating on Aquaculture and there is a severe shortage of aquaculture skills in the South Sudan. Additionally the support industries, such as laboratories, feed mills and processing units necessary for large scale commercial aquaculture presently do not exist.

# GOAL

# Sustainable Aquaculture development and production contributing to Economic Growth, Poverty Alleviation and Food Security

Objectives	Strategies	Priorit y	Extern al inputs
	1. Develop Master Plan for Aquaculture, concentrating on private sector involvement	$\checkmark$	$\checkmark$
1. To attract	2. With the co-operation of the 10 states identify areas of high potential for aquaculture development, and publicise the results widely	<b>√</b>	
private Investment to Aquaculture by creating an enabling	3. Establish a decentralised registration and licensing system for aquaculture enterprises of all sorts (including those in payams and bomas)		
environment	4. Encourage cooperatives producer organisations and marketing bodies for aquaculture		
	5. Produce a Code of Practice for Aquaculture in South Sudan, based on the FAO COP amended for local conditions	$\checkmark$	
2. To attract funding for development of integrated Agriculture/ Aquaculture systems in rural areas	1. Co-operate with NGOs and donor bodies for particularly for the use of integrated Aquaculture Agriculture systems as a mitigation activity for HIV/AIDS affected rural households and PLHIV, food security, income and employment generation	<b>~</b>	✓
3. To regulate the production of feed for aquaculture	1. Produce a COP for feed production to be issued under the fisheries regulations, based on best practice	✓	
4. To control diseases in aquaculture & improve reporting	1. Create and enact regulations to control importation of fingerlings and establish local hatcheries with rigid reporting		
5. To control species introductions and	1. Enforce laws and guidelines on introductions and transfers so as to protect biodiversity	$\checkmark$	
transfers in Aquaculture	2. Prepare guidelines on mitigation of the effects of introductions and transfers of species through Aquaculture activities		
6. To enhance aquaculture in areas where irrigation schemes	1. Cooperate with the relevant ministries on enhancing aquaculture in irrigated areas and on the possibility of cage culture and ranching in dams and other	✓	

Objectives	Strategies	Priorit y	Extern al inputs
& dams are created	enclosed water bodies		
7. To address environmental	1. Guarantee the preservation of and protection from Aquaculture of protected habitats and areas (e.g. RAMSAR sites)		
concerns regarding Aquaculture	2. Include in the Codes of Practice for aquaculture guidance on the mitigation of the effects of aquaculture on the environment.	$\checkmark$	

## 5.6 Policy Area 6. Post Harvest

#### Key Issues

- Most fish not eaten by the fisherfolk themselves is dried or smoked before being sent to market.
- There are in some areas large numbers of rural fishers and there is not always a surplus to market elsewhere.
- There are no local facilities in most areas for handling fresh fish, nor storage facilities. Where they do exist they do not meet even basic hygiene requirements. Iceboxes are not generally available, particularly in rich fishing grounds such as the Sudd and other areas where there is potential for growth.
- Transport to get fish to market is a serious constraint, due to poor roads and unsuitable vehicles.
- There are no local standards or codes of practice for the quality of fish post harvest, neither for exports. International standards (HACCP, GMP) are not yet adopted nor enforced.
- Fresh fish for local consumption could be significantly improved in quality by application of basic methods of preservation, such as ice. There is generally a shortage of ice making facilities in the country
- There are reported to be considerable post-harvest loses, both in fresh fish, smoked and sun dried products. These are primarily from insect adults and larvae and breakages.
- International and regional norms require that basic hygiene requirements are met, particularly for exports.
- Trade in fish and fisheries products is not controlled at all.
- There are regional Trade Protocols covering fish which have not yet been implemented.
- There is a shortage of inward investment to fisheries post harvest activates and government is only making limited efforts to rectify this problem. National Government and States have not made significant efforts in this area to date. The private sector is expected to make the investments in improving conditions for fish quality.
- Although the establishment of a Competent Authority is a desired objective, it cannot be done in the short term as there are inadequate trained staff and the equipment and set up costs will not justify the expense. In the meantime there is little possibility of exports of fish to sophisticated markets which demand the

establishment of such a body, and a level of quality control not yet found in the country.

# GOAL An effective fish quality control and assurance system that meets international standards and raises the value of the products of fisheries and aquaculture

Objectives	Strategies	Priority	External inputs
	1. Write codes of practice (COP) & manuals and enforce them through inspection. These COPs and manuals to be compulsory and to international and regional standards (CODEX Alimentarius, WTO, HACCP, EU Directives, etc)	~	~
	2. Develop a skills based certification and training scheme for the fish processing industry		
1. To reduce post harvest losses	3. Train fishers, processors, wholesalers, exporters and retailers in fish processing and post harvest handling		
	4. Identify appropriate sites for the establishment of infrastructure based on technical criteria	$\checkmark$	
	5. Encourage the establishment of landing sites & other infrastructure, including modern designs of vessels suitable for quality maintenance aboard, ice machines and insulated boxes by the private sector	~	✓
	1. Establish a competent authority with the appropriate body (SS Standards Authority) responsible for fish quality control, certification (particularly of exports) and inspection of landing sites and premises		
2. To ensure	2. Introduce a local system of inspection and control to reduce negative effects of poor quality fish products on the consumer	✓	
safety of fisheries products	3. Develop a system of controlling imports of fish that have not been produced in accordance with international standards and norms		
	4. Collaborate with Ministry of Roads and Bridges and Ministry of Transport to improve road, air and water communication to fisheries dependent areas of the country so as to improve transport of fresh and processed fish		

Objectives	Strategies	Priority	External inputs
3. To increase	1. Advertise the health benefits of fish		
in per capita fish	as a protein source		
consumption from	2. Develop the fish supply and value		
current low levels	chain from production to consumer		
	1. Sensitise fisheries stakeholders on		
4. To develop	the nutritional benefits of fish production		
appreciation of the	and its role in food security, particularly of		
role of capture	integrated aquaculture systems		
fisheries and	2. Integrate Fisheries into National		
aquaculture in	Food Security Programmes and ensure		
food security	active participation in programming for		
	food security with other agencies		
	1. Promote value adding through		
	improvements in small scale processing		
	methods, and use of other valuable fish products such as live fish, maws,		
5. To increase	swimbladders, leather, spiced fish and		
the value of	other such products		
fisheries and	2. Encourage exports of fish in		
aquatic products	cooperation with the Ministry of		
	Commerce, Industry and Investment		
	3. Encourage greater efficiency and		
	use of resources in the fish processing		
	industry		

# 6 Implementation of policy

# 6.1 Risks and constraints

84. Constraints that threaten the ability of the RSS MARF to deliver on the Fisheries Policy can be divided into:

- I. Those which are internal, to the extent that they may reduce the capacity of programmes to perform. These include (although not exhaustive), funding, staffing levels, management skills, training and research.
- II. Those that are external, and may prevent the uptake and effective use of programme services and advice. They include political will, capacity of national institutions, regional considerations, civil unrest, reliance on oil revenue, and the like.
- 85. Implementation of the Policy may also be limited by
  - i. Attempting to provide equal services to all programme areas, rather than tailoring activities to their capacity and needs. There is a clear need for rigorous prioritisation of programmes in the light of the internal & external constraints listed above. An attempt to do this has been made in this document.

- ii. A failure to involve the private sector in all activities. The Government and States have little capacity for commercial business on their own, and very little money to invest in the sector.
- iii. A failure to advise and assist the States appropriately, either though logistical failures or insufficient capacity.
- iv. Inadequate funding to implement work programmes, both local recurrent and with donor partners, or a failure to develop proposals. (All these are evident at present)
- v. A collapse in Government financial support to the sector. This may occur due to a general collapse of government revenues (perhaps over-reliance on oil as main revenue source) or corruption leading to misallocation of financial resources.
- vi. Continued perception that the fisheries sector is a junior partner to other natural resource sectors, leading to a loss of political will to address the problems evident in the sector. (This has been mentioned repeatedly in interviews with stakeholders in Juba and the States)
- vii. Insecurity and political turmoil (Insecurity was identified as a recurrent problem at Consultative Workshops).
- viii. Service delivery fails due to high levels of corruption (a serious problem identified at Consultative Workshops) and high costs of basing all programmes and staff around Juba.
- ix. The scientific basis on which many of the decisions that have to be made is not sound or does not exist and even then scientific advice may not be translated into management action.
- x. A continued failure to develop actionable management plans and management measures. DOF operationally only works at Government and States levels. Below that is the responsibility of the states with DOF advice. Whether this system will work sufficiently or not is unknown.
- xi. Danger of communication breakdown among key stakeholders more effective communication will raise awareness of decision-makers and the public.
- xii. Putting into operation the FAO Code of Conduct for Responsible Fisheries (which includes aquaculture) and the ecosystem approach to resource management may prove difficult in South Sudan's small scale geographically diverse fisheries. DOF cannot provide scientific support for this process as there is no research institute at present to provide scientific advice, though there is the possibility of co-operation with FAO or other development partners.
- xiii. Lack of capacity in government administrations in the States to effectively use extension services, implement advice and put training into action in-country is one of the greatest risks to implementation. The mitigation can include more targeted capacity building and institutional strengthening; working with nongovernment partners where appropriate.

86. Of all of these those related to the capacity of the RSS MARF and the States Fisheries administrations to deliver due to lack of skills and staff, insufficient funding and weak institutions throughout the country are perhaps most important and most likely to affect the implementation of projects and programmes.

87. Other major constraints in line with the identified policy themes are

#### Governance

- i. Human population increase can place unbearable pressure on fisheries resources
- ii. Control of access can fail as a result of political and/or social pressure
- iii. Fisheries management strategies may not be adhered to at the level of States and CFOs
- iv. States fail to implement the Fisheries Policy and also fail to make local legislation necessary to support Cooperatives, CBOs and CFOs
- v. Cooperatives, CBOs and CFOs if established may again prove unsustainable and less self sustaining without donor support
- vi. RSS MARF as a lead Agency may fail to restructure and strengthen its capacity to deliver at National and State level, limiting ability to implement change and development
- vii. Cooperation between Directorates within RSS MARF itself may be less than ideal and lead to inefficiencies in implementation and planning
- viii. Relationships between States & National Government deteriorates, with no cooperation
- ix. The new legislation and accompanying regulations on Fisheries prove to be incomplete or inappropriate

#### Human Resources

- i. DOF and States may fail to provide the necessary capacity building to key stakeholders including Cooperatives, CBOs and CFOs, and empowerment fails
- ii. Continued low level of skills and lack of motivation in the Government and States fisheries cadre
- iii. Insufficient staff in Government and the States to carry out the planned programmes and no responsive Human Resources (HR) development planning
- iv. Lack of funding from donors for training and skills development
- v. Low levels of illiteracy may pose a risk of not getting right people to train
- vi. Health care & awareness building fails to reach fisheries communities, and ailments from HIV/AIDS and waterborne diseases becomes an even greater threat to lives and livelihoods
- vii. Cooperatives, CBOs and CFOs prove incapable of sustained organization due to lack of training and skills

#### Research

- i. Failure to attract funding for Research Station establishment and equipment provisions
- ii. Lack of qualified staff to kick-start the research programmes
- iii. Failure of stakeholders to contribute data on a sustainable basis
- iv. Poor Fisheries Information Systems and poor Communication
- v. Continued inability of the DOF and States to collect accurate data on fisheries and aquaculture

#### **Capture Fisheries**

- i. Failure to reach agreement on Monitoring, Control and Surveillance with the States
- ii. Transboundary issues remain unresolved

- iii. Unknown state of the fish stock
- iv. Failure to recruit professional and dedicated staff in a reasonable amount of time
- v. Increase in conflicts between centrally controlled and locally based fisheries management mechanisms and measures
- vi. MSYs of the major fishing grounds are reached or exceeded due to rapid uncontrolled expansion of effort

## Aquaculture

- i. Aquaculture may fail to attract investors at either small or commercial scales
- ii. National environmental conditions for aquaculture turns out to be unconducive to production or investment
- iii. Mechanisms for husbandry and sharing of enhanced or culture-based stocks fail
- iv. Access to credit for aquaculture and SME development remains a problem

## **Post Harvest**

- i. Failure of the private sector to develop landing site infrastructure
- ii. Lack of funding to the private sector for infrastructure development or the funding not reaching the target groups
- iii. Failure to comply with acceptable international food quality standards (HACCP etc)
- iv. The enabling environment for investors in the fish processing/export and aquaculture development sector is not provided
- v. Investors regard fisheries as high risk

# 6.2 Institutional Arrangements

88. The body responsible for coordinating the implementation of the Fisheries Policy is the DOF in the Ministry of Animal Resources and Fisheries. The Fisheries Policy will also form the basis for the States' policies which will be expected to generally conform to it and maintain the same principles.

89. Very many other organisations will also be expected to assist in implementation, including those Government Departments and Ministries involved with cross-cutting issues, such as Water, Education, Environment, and Wildlife; NGOs and other development partners. The private sector, as the engine for growth in Fisheries and Aquaculture, will also be expected to play its part, under the regulatory regime imposed by the National Government and States.

# 7 Implementation Plan Matrix

90. Many of the policies in the 2012 policy can be found in the 2006 Policy Document. Some of those policies were not prioritised sufficiently, given the capacity and funding constraints under which the DOF is operating.

91. Many of thesepolicies and strategies include those that should be routine activities carried out by the Government and States administrations, and without which management of the fisheries of the country will be impossible. These are presumed to be ongoing obligations of the DOF (even if they are not currently being done), and so have no timeframe.

92. The implementation plan is given in the matrix below. Timelines are most uncertain, particularly over the first 5 year period, the period covered by this policy document. Many activities depend on capacity in DOF and the states being improved, funding being made available from whatever source, assistance being provided by development partners. Just filling the establishment posts in itself can take a long time since recruitment is a lengthy business; and building capacity depends also on training and experience.

93. (Note that Ministries names and responsibilities change with time).

Policy Area 1 Governance					
Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
	1) Revise the Fisheries Bill, paying attention to Aquaculture and post harvest issues as well as capture fisheries, and incorporating decentralisation of powers, co-management and the Precautionary Approach to sustainable fisheries	~	~	DOF RSS MARF SMARFs Ministry of Justice Development Partners	Ongoing in 2012. Complete 2015
1. To produce a modern and robust legal framework for fisheries and	2) Delineate responsibilities and structures of National Government, (RSS MARF), States Fisheries Departments, Counties, Village and Payam councils, Communities and Co-management structures	~	~	DOF RSS MARF SMARFs Ministry of Justice Development Partners	Ongoing in 2012. Complete 2015
aquaculture in South Sudan	3) Prepare appropriate regulations under the Fisheries Bill covering obligations under international protocols and standards for Fisheries, Aquaculture and Post Harvest, including operational regulations	~	~	DOF RSS MARF SMARFs Ministry of Justice Development Partners	Ongoing in 2012. Complete 2015
	4) Regularly review regulations particularly levels of fines, penalties and fees; and gear restrictions			DOF RSS MARF SMARFs	Review as necessary
	5) Enshrine in the legislation the principle of a limit to entry to capture fisheries so as to comply with international instruments	$\checkmark$		DOF RSS MARF SMARFs	Ongoing in 2012. Complete 2015
2. To improve the climate for internal and Foreign Direct Investment to	1) Harmonise import taxes and levies with other EAC states			DOF RSS MARF Ministry of Commerce, Industry	Dependant on RSS joining the EAC

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
fisheries and aquaculture				and Investment Ministry of Foreign Affairs and International Cooperation	
	2) Prepare an Investment Guide for fisheries and aquaculture in South Sudan	~	~	DOF RSS MARF Ministry of Commerce, Industry and Investment SMARFs Development Partners	Short guide prepared 2013 if assistance can be sourced. (DOF & RSS MARF cannot do it on their own)
	3) Promote third party involvement in matching grant and soft loans for entrepreneurs through commercial banks and finance institutions	~	~	DOF RSS MARF Development Partners Microfinance Institutions Commercial Banks	Create necessary links by 2014 with MOUs
	4) Negotiate EAC access protocols for SS fisheries products	✓		DOF RSS MARF Ministry of Commerce, Industry and Investment Ministry of Foreign Affairs and International Cooperation	Dependant on RSS joining the EAC

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
	5) Develop with the Land Commission an appropriate land tenure system for private fish farms and hatcheries	~	~	DOF RSS MARF Land Commission Development Partners	DOF to establish working committee 2013. Completion depends on Land Commission.
	1) Prepare a development master plan for Fisheries including all states, resources and distinct ecosystems	~	~	DOF RSS MARF Development Partners SMARFs	Seek assistance 2012. Start 2014 End 2015/16
3. To improve cooperation between Government Departments and Institutions on crosscutting issues	2) Ensure regular timetabled consultations with Ministries and Departments on issues that affect Fisheries	✓		DOF RSS MARF Relevant Ministries and Directorates, <i>inter alia</i> , Ministries of Water Resources and Irrigation, Electricity and Dams, Commerce, Industry and Investment Information and Broadcasting, Health, Environment, Agriculture and Forestry, Roads and Bridges, Transport,	Establish 2012/13, then maintain forums <sup>1</sup>

 $<sup>^{1}</sup>$ The English plural *forums* is preferred to the Latin plural fora in normal English usage.

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
				General Education and Instruction, Higher Education, Science and Technology, Wildlife and Tourism and others	
	3) Form a joint committee on water use covering priority uses, protection, sustainable development and increasing productivity	✓		DOF RSS MARF SMARFs Relevant Ministries and Directorates, <i>inter alia</i> , Ministry of Water Resources and Irrigation Ministry of Electricity and Dams	Establish 2012/13, then maintain forums
4. To enhance communications, data flow and coordination within	1) Establish a Fisheries Information System / database at RSS MARF and DOFs at States level.	~		DOF RSS MARF SMARFs	Immediate implementation, then ongoing as routine activity of DOF. RSS MARF and SMARFs
Directorates of RSS MARF and between DOF and the 10 states.	2) Produce an Annual Work Plan and Fisheries Annual Report for DOF and circulate both, internally in RSS MARF and widely amongst stakeholders	~		DOF	Immediate implementation, then ongoing as routine activity of DOF

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
	3) Develop a system of communication with each of the Fisheries Departments in the 10 states allowing constant flow of data and information	~		DOF SMARFs	Immediate implementation, then ongoing as routine activity of DOF and SMARFs
	4) Improve internal communication and cooperation within RSS MARF between Directorates with responsibilities that influence or affect Fisheries and Aquaculture	~		DOF RSS MARF	Immediate implementation, then ongoing as routine activity of DOF/RSS MARF
	1) Adopt measures to prevent environmental damage to aquatic systems through pollution and environmental degradation			DOF RSS MARF Ministry of Environment Ministry of Wildlife and Tourism	Ongoing as routine activity of DOF/RSS MARF
5. To maintain a healthy environment and ecosystems	2) Ensure that compulsory ESIAs are undertaken for all developments that affect fisheries, including large scale aquaculture developments	~		DOF RSS MARF Ministry of Environment Ministry of Wildlife and Tourism	Ongoing as routine activity of DOF/RSS MARF
	3) Observe all International Treaties and Protocols on the Environment and Biodiversity	~	~	DOF RSS MARF Ministry of Environment Ministry of Foreign Affairs and International Cooperation	Immediate implementation, then ongoing as routine activity of DOF/RSS MARF

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
				Development Partners	
6. To ensure sustained and profitable use of shared resources	1) Ensure representation by DOF in all Transboundary negotiations and in the preparation of agreements with other jurisdictions	~		DOF RSS MARF Ministry of Foreign Affairs and International Cooperation	Immediate implementation, then ongoing as routine activity of DOF/RSS MARF
7. To raise the profile of fisheries as a sector so as to obtain extra resources for the DOF and for States fisheries departments	1) Develop media and other publicity to enhance the profile of fisheries in South Sudan	<b>√</b>		DOF RSS MARF	Immediate implementation, then ongoing as routine activity of DOF/RSS MARF
	2) Within Government institutions maintain a presence on all committees, donor groups and other groups to present fisheries as an important development sector with high potential for growth and poverty alleviation	~	~	DOF RSS MARF Relevant Ministries and Directorates Development Partners	Immediate implementation, then ongoing as routine activity of DOF/RSS MARF
	3) Higher emphasis on fisheries in SMARFs through the establishment of DG posts specifically for fisheries	✓		DOF RSS MARF SMARFs	Initiate in 2012
	4) Develop, in conjunction with the SMARFs, a consistent structure for DOFs and Fisheries Departments across all states	$\checkmark$		DOF RSS MARF SMARFs	Initiate in 2012
	5) Develop a position paper on the advisability of establishing a RSS National Fisheries Authority, independent of RSS MARF for future consideration		$\checkmark$	DOF Development Partners	Initiate in 2012

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
8. To combat HIV and AIDS in the workplace and in the industry	1) DOF to follow overarching Government guidance on HIV and AIDS and to mainstream HIV and AIDS in all activities, whilst enumerating baseline data	✓		DOF RSS MARF Ministry of Health AIDS Commission	Ongoing as routine activity of DOF/RSS MARF
9. To act on Gender Issues and the Rights of the Child	2) DOF to follow overarching Government guidance on Gender and the Rights of the Child and to mainstream Gender and the Rights of the Child in all activities, in conjunction with the Ministry of Gender and Social Welfare and the Ministry of Education			DOF RSS MARF Ministry of Gender, Child and Social Welfare	Ongoing as routine activity of DOF/RSS MARF
10. To respond appropriately to climate change and natural disasters	1) Research into and develop policy advice to contribute to wider government responses to climate change and disaster management			DOF RSS MARF Ministry of Environment	As and when necessary
11. To improve occupational safety for fisherfolk	1) Develop a Small craft safety programme with the Ministry of Transport	~		DOF SMARFs Ministry of Transport Padak FTC/ DJGIST	Recommendations and COP by 2017
	Policy Area 2. H	uman	Resou	rces	
1. To ensure that	1) calculate and source budget requirements	$\checkmark$		DOF RSS MARF	Annual activity
DOF and States' Fisheries Departments are fully staffed and funded	2) Recruit suitably qualified staff to fill vacant posts in existing structures	✓		DOF RSS MARF Ministry of Labour, Public Service and Human Resource Development	Complete 2014 (depends on recurrent budgets available)

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
	3) Prepare a Human Resource Development Plan for Fisheries Directorate and the 10 states based on fisheries requirements ( <i>not geographical boundaries</i> <i>or population</i> )	~	~	DOF RSS MARF SMARFs FTC Padak Development Partners	Complete 2015, (dependant on donor assistance)
2. To strengthen extension services	4) Involve National Government, Development Partners and NGOs in assistance to the 10 States in strengthening their Extension services	~	~	DOF RSS MARF SMARFs Development Partners & NGOs	Ongoing as routine activity of DOF/RSS MARF
in the 10 states	5) Recruit suitable staff to fill the posts of Extension workers	$\checkmark$		SMARFs	ASAP (depends on recurrent budgets available)
3.To develop the skills and qualifications of the staff in DOF, in the 10 States and the private sector	1) Develop a staff training plan DOF and the 10 States including TORs for all staff	~	~	DOF RSS MARF SMARFs Development Partners & NGOs	ASAP (dependant on donor assistance)
	2) Form a committee from DOF, States and academia to guide Fisheries Training in South Sudan			DOF RSS MARF SMARFs Universities TVET centres	Formed 2015 Meets annually
	3) Improve contacts with Universities in South Sudan regarding diploma, graduate and post graduate training	$\checkmark$		DOF Universities	Initiated 2013 then ongoing

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
	4) Work with Technical Institutes and Vocational Training Centres regarding skills development in ancillary industries (fish farming, boatbuilding, refrigeration etc)	~	~	DOF RSS MARF SMARFs Development Partners & NGOs	Initiated 2013 then ongoing
	5) Liaison with Development partners to identify and fund appropriate training opportunities overseas where facilities do not exist in South Sudan	$\checkmark$	$\checkmark$	DOF Development Partners	Ongoing as routine activity of DOF/RSS MARF
	6) The RSS MARF training centre at Padak strengthened so as to be capable of satisfying the basic skills development of DOF and the 10 states. (It is not desirable that this FTC leaves RSS MARF control)	~	~	DOF RSS MARF	Ongoing as routine activity of DOF/RSS MARF
	7) Develop curricula relevant to the needs of the fishing and aquaculture industries for universities, TVET, Padak FTC and in schools	✓	~	DOF RSS MARF Ministry of Education, Science and Technology Ministry of Higher Education, Research, Science and Technology Development Partners	Initiated 2013 then ongoing
	8) Develop a system of certification of training courses and programmes to ensure that only certified staff are employed in government and industry			DOF RSS MARF Ministry of Education,	Initiated 2015 then ongoing

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
				Science and Technology Ministry of Higher Education, Research, Science and Technology Development Partners Ministry of Commerce, Industry and Investment	
	9) Undertake a gender sensitive training needs assessment for fishers, aquaculturalists and processors (the private sector)	~		DOR SMARFs Ministry of Gender, Child and Social Welfare	Short study in 2014
	10) Develop appropriate courses for fisheries for the private sector in TVET centres throughout the country, particularly in business management and basic technical skills for women	~	✓	DOF RSS MARF Ministry of Education, Science and Technology Development Partners	Initiated 2015 then ongoing
	11) Promote Literacy and other vocational programmes in rural areas, where fisherfolk communities miss out on formal opportunities in education			DOF RSS MARF SMARFs Ministry of Education,	Initiated 2015 then ongoing

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
				Science and Technology	
	Policy Area	3. Re	searc	h	
	1) Establish a dedicated Aquaculture Research Unit containing a modern hatchery in RSS MARF, which will cover, inter alia, methods, species, feeding regimes etc for fish farming	~	~	DOF RSS MARF	2019
1. To improve	2) Establish a dedicated Fisheries Research Unit in RSS MARF, covering, inter alia, biological aspects of commercial fish, data collection and collation, fishing methods etc in the commercial capture sector	~	~	DOF RSS MARF	2018
quality and relevance of research in fisheries and aquaculture	3) Establish an independent Fisheries Research Council to guide needs based research in RSS MARF research units and in higher level educational institutions in South Sudan			DOF RSS MARF Universities	2018
	4) Update existing university curricula to make research done there more relevant to the needs of the fisheries sector in South Sudan			DOF RSS MARF Universities	2016 then ongoing
	5) Improve linkages with international research institutions for research and collaborative programmes on fisheries and aquaculture	$\checkmark$	$\checkmark$	DOF RSS MARF Universities Development Partners	Ongoing as routine activity of DOF/RSS MARF
2. To collect, collate and	1) Undertake a baseline frame survey on fisheries throughout the country	$\checkmark$	$\checkmark$	DOF RSS MARF	Planning in 2012/3 Survey 2015/6

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
disseminate data on all aspects of fisheries and				SMARFs Development Partners	
aquaculture throughout the country	2) Develop a comprehensive and harmonised statistics collection system through the 10 states	~	~	DOF RSS MARF SMARFs Development Partners	2014
	3) Improve reliability of statistical data by improving the frequency of collection and better collation of statistics			DOF SMARFs	Should be ongoing from 2014
	4) Improve dissemination and the regularity of published statistical data on fisheries and aquaculture	$\checkmark$		DOF	2014 onwards
	5) Undertake basic research on fish biology of commercial species in capture species so as to inform management policies and respond to identified risks			DOF	Dependant on establishment of research centres. Probably at least 2018
3. To preserve indigenous knowledge, on fisheries	1) Establish a database of traditional knowledge of fisheries through the DOF	$\checkmark$		DOF Universities (though research grants)	Start 2015, then maintain
4. To monitor environmental changes affecting fisheries including climate change	1) Improve monitoring of changes in the environment and their effect on Fisheries and Aquaculture			DOF Ministry of Environment	Ongoing as routine activity of DOF/RSS MARF
	2) Establish a Hydrology section in the Fisheries Research Unit, with sufficient equipment and staff to undertake routine environmental monitoring			DOF RSS MARF	2019

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
	<ol> <li>Produce a DOF Annual Report of Activities including all data on fisheries, aquaculture and post harvest</li> </ol>	$\checkmark$		DOF	Ongoing as routine activity of DOF/RSS MARF
5. To improve information distribution, communication	2) Create a DOF Fisheries Website within the RSS MARF website, as a publically available depository for all information on Fisheries issues in South Sudan			DOF RSS MARF	2013/4
and technology systems	3) Distribute all data back to the users of the resources, including local management bodies			DOF SMARFs	Ongoing as routine activity of DOF/RSS MARF
	Policy Area 4. C	aptur	e Fish	eries	
1. To manage the fisheries resources	1) Implement the FAO Code of Conduct for Responsible Fisheries (CCRF) including the Precautionary approach, ecosystems approach and other related guidelines	~	~	DOF RSS MARF SMARFs States Governments Development Partners	Ongoing as routine activity of DOF/RSS MARF
of the South Sudan so as to maximise production and avoid overfishing	2) Promote co-management of all fish stocks and resources	✓	✓	DOF RSS MARF SMARFs States Governments	Ongoing as routine activity of DOF/RSS MARF
	3) Promote co-operatives, fisheries associations and management committees	$\checkmark$		DOF RSS MARF SMARFs States Governments Ministry of Labour	Ongoing as routine activity of DOF/RSS MARF

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
	4) Facilitate capacity building for co- operatives, fisheries associations and management committees			DOF RSS MARF SMARFs States Governments Ministry of Labour	Ongoing as routine activity of DOF/RSS MARF
	5) Develop conflict management mechanisms to find commonly acceptable solutions for opposing interest groups			DOF RSS MARF SMARFs States Governments	Ongoing as routine activity of DOF/RSS MARF
	6) Apply a participatory approach to decision making in all fisheries issues			DOF RSS MARF SMARFs States Governments	Ongoing as routine activity of DOF/RSS MARF
	7) Allocate fisheries resources fairly between competing users and interest groups so as to reduce conflicts			DOF RSS MARF SMARFs States Governments	Ongoing as routine activity of DOF/RSS MARF
	8) Regular review of the effectiveness and relevance of management tools used to control effort and harvesting of wild resources (licensing, closed areas etc)			DOF RSS MARF SMARFs States Governments	Ongoing as routine activity of DOF/RSS MARF
	9) Establish a participatory MCS system and control the use of illegal fishing methods and gears through education, training and effective inspection & enforcement to internationally established codes and standards	✓	✓	DOF RSS MARF SMARFs States Governments Development Partners	2012-2016 Planning Begin 2017 Then ongoing as routine activity of DOF/RSS MARF
	10) Develop with the co-managers, revolving 5 year management plans for important fisheries, including controls on	$\checkmark$	$\checkmark$	DOF RSS MARF SMARFs	2012-2016 Planning Begin 2017 Then ongoing as

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
	effort, no fishing zones and protected areas.			States Governments Development Partners	routine activity of DOF/RSS MARF
2. To control	1) Design and introduce a system to control open access to fisheries throughout the country			DOF RSS MARF SMARFs States Governments	Begin 2017 Then ongoing as routine activity of DOF/RSS MARF
overexploitation of fish stocks and eradicate IUU fishing	2) Improve surveillance and control of fisheries to ensure that regulations (particularly related to fishing methods and licenses) are being enforced	~	~	DOF RSS MARF SMARFs States Governments Development Partners	Begin 2017 Then ongoing as routine activity of DOF/RSS MARF
3. To increase production from under-exploited stocks and areas	1) Identify areas where stocks of fish are underexploited	~		DOF SMARFs	2012-2016 Planning Begin 2017 Then ongoing as routine activity of DOF/RSS MARF
	2) Introduce fishing methods suitable to exploiting underexploited stocks to those areas where they exist			DOF SMARFs	2012-2016 Planning Begin 2017 Then ongoing as routine activity of DOF/RSS MARF
4.To develop a sport fishing industry	1) Identify and with the agreement of stakeholders, dedicate water bodies and areas for sport fishing activities only			DOF SMARFs Ministry of Wildlife and Tourism	Completed 2018

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
	2) Enforce licensing and reporting in Sport Fisheries			DOF SMARFs Ministry of Wildlife and Tourism	Ongoing as routine activity of DOF/RSS MARF/ Min Tourism
	<ol> <li>Advertise sport fishing potential as an adjunct to tourism</li> </ol>			DOF SMARFs Ministry of Wildlife and Tourism	Ongoing as routine activity of DOF/RSS MARF/ Min Tourism
5.To develop the aquarium trade	<ol> <li>Permit the issuing of licences for aquarium fisheries under strict controls of methods of collection and export</li> </ol>			DOF SMARFs	Immediate implementation
	Policy Area 5	Aqua	acultu	re	
1. To attract private Investment to Aquaculture by	1) Develop Master Plan for Aquaculture, concentrating on private sector involvement		✓	DOF RSS MARF SMARFs Ministry of Commerce, Industry & Investment Development Partners	Planning 2013 Masterplan complete end 2014
creating an enabling environment	2) With the co-operation of the 10 states identify areas of high potential for aquaculture development, and publicise the results widely	<b>√</b>		DOF RSS MARF SMARFs	In masterplan
	3) Establish a decentralised registration and licensing system for aquaculture enterprises of all sorts (including those in payams and bomas)			DOF RSS MARF SMARFs	System set up by 2015

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
	4) Encourage cooperatives producer organisations and marketing bodies for aquaculture			DOF RSS MARF SMARFs Ministry of Labour	Ongoing activity
	5) Produce a Code of Practice (COP) for Aquaculture in South Sudan, based on the FAO COP amended for local conditions	$\checkmark$		DOF	2015
2.To attract funding for development of integrated Agriculture/ Aquaculture systems in rural areas	1) Co-operate with NGOs and donor bodies for particularly for the use of integrated Aquaculture/Agriculture systems as a mitigation activity for HIV/AIDS affected rural households and PLHIV, and food security, income and employment generation.	✓	<b>~</b>	DOF RSS MARF SMARFs Aids Commission Ministry of Health Ministry of Agriculture & Forestry Development Partners	Immediate implementation Then routine
3. To regulate the production of feed for aquaculture	1) Produce a COP for feed production to be issued under the fisheries regulations, based on best practice and regional norms	<b>√</b>		DOF RSS MARF Directorate of Standards	2015. Depends on Fisheries Regulations & Legislation
4. To control diseases in aquaculture & improve reporting	1) Create and enact regulations to control importation of fingerlings and establish local hatcheries with rigid reporting			DOF RSS MARF	2015. Depends on Fisheries Regulations & Legislation
5. To control species introductions and transfers in	1) Enforce laws and guidelines on introductions and transfers so as to protect biodiversity	$\checkmark$		DOF RSS MARF	2015. Depends on Fisheries Regulations & Legislation

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
Aquaculture	2) Prepare guidelines on mitigation of the effects of introductions and transfers of species through Aquaculture activities			DOF RSS MARF	2016
6. To enhance aquaculture in areas where irrigation schemes & dams are created	1) Cooperate with the relevant ministries on enhancing aquaculture in irrigated areas and on the possibility of cage culture and ranching in dams and other enclosed water bodies	<ul> <li>✓</li> </ul>		DOF RSS MARF Ministry of Dams & Irrigation Ministry of Agriculture & Forestry	Ongoing as routine activity of DOF/RSS MARF
7. To address environmental concerns regarding	1) Guarantee the preservation of and protection from Aquaculture of protected habitats and areas (e.g. RAMSAR sites)			DOF RSS MARF States Ministry of Wildlife and Tourism Ministry of Environment	Ongoing as routine activity of DOF/RSS MARF
Aquaculture	2) Include in the Codes of Practice for aquaculture guidance on the mitigation of the effects of aquaculture on the environment	$\checkmark$		DOF	2016
	Policy Area. 6	<b>Post</b>	Harve	st	
1. To reduce post harvest losses	1) Write codes of practice & manuals and enforce them through inspection. These CODs and manuals to be compulsory and to international and regional standards (CODEX Alimentarius, WTO, HACCP, EU Directives, etc)	~	~	DOF RSS MARF Directorate of Standards Development Partners	2019

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
	2) Develop a skills based certification and training scheme for the fish processing industry			DOF RSS MARF Ministry of Education, Science and Technology Ministry of Higher Education, Research, Science and Technology Development Partners FTC Padak	
	<ol> <li>Train fishers, processors, wholesalers, exporters and retailers in fish processing and post harvest</li> </ol>			DOF RSS MARF FTC PAdak TVET Institutions	
	4) Identify appropriate sites for the establishment of infrastructure based on technical criteria	$\checkmark$		DOF SMARFs	Ongoing as routine activity of DOF/RSS MARF
	5) Encourage the establishment of landing sites & other infrastructure, including modern designs of vessels suitable for quality maintenance aboard, ice machines and insulated boxes by the private sector.	~	~	DOF RSS MARF Development Partners Microfinance Institutions Commercial Banks (Private sector)	Immediate implementation, then an ongoing activity
2. To ensure safety of fisheries	1) Establish a competent authority with the appropriate body (SS Standards Authority)			DOF RSS MARF	This is very long term programme,

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
products	responsible for fish quality control, certification (particularly of exports) and inspection of landing sites and premises			Directorate of Standards	perhaps 15 - 20 years. Start planning in ~ 2016
	2) Introduce a local system of inspection and control to reduce negative effects of poor quality fish products on the consumer.	$\checkmark$		DOF SMARFs Town Councils	2019
	3) Develop a system of controlling imports of fish that have not been produced in accordance with international standards and norms			DOF SMARFs Directorate of Standards	2019
	4) Collaborate with Ministry of Roads and Bridges and Ministry of Transport to improve road, air and water communication to fisheries dependent areas of the country so as to improve transport of fresh and processed fish			DOF RSS MARF SMARFs States Ministry of Roads and Bridges Ministry of Transport	Immediate implementation then ongoing
3. To increase in per capita fish consumption from	1) Advertise the health benefits of fish as a protein source			DOF RSS MARF SMARFs States Ministry of Health	2014 then ongoing
current low levels	2) Develop the fish supply and value chain from production to consumer			DOF (Private Sector)	As and when
4. To develop appreciation of the role of capture fisheries and aquaculture in	1) Sensitise fisheries stakeholders on the nutritional benefits of fish production and the role in food security, particularly of integrated aquaculture and agriculture systems			DOF RSS MARF SMARFs States Ministry of Health	Immediate implementation then ongoing

Objectives	Strategies	Priority	External inputs	Responsibility for implementation	Time frame to complete
food security	2) Integrate Fisheries into National Food Security Programmes and ensure active participation in programming for food security with other agencies			DOF RSS MARF SMARFs States Ministry of Health	Immediate implementation then ongoing
5.To increase the	1) Promote value adding through improvements in small scale processing methods, and use of other valuable fish products such as live fish, maws, swimbladders, leather, spiced fish and other such products			DOF SMARFs FTC Padak TVET institutions	Immediate implementation then ongoing
value of fisheries and aquatic products	2) Encourage exports of fish in cooperation with the Ministry of Commerce, Industry and Investment			DOF SMARFs Ministry of Commerce and Investment	When required
	3) Encourage greater efficiency and use of resources in the fish processing industry			DOF RSS MARF SMARFs	2012 then ongoing activity

# 8 Monitoring and Evaluation

94. The Monitoring and Evaluation plan for the Fisheries Policy is given in the table below. This gives the baseline current situation, the long term target, key milestones and a time frame.

95. As can be seen from the table, the baseline situation reflects the staff shortages and lack of capacity in the DOF and the States Fisheries Administrations.

# 8.1 Means of monitoring

96. The most important means of monitoring the effectiveness of the policy will be through the annual report produced by the DOF. This lists the achievements of the different sections of the DOF against the objectives set for it. All the sections' activities will be recorded in this annual document. Data from private sector activities in fish farming and fishing are also included, since the private sector will be obligated, under the license conditions that will be imposed, to provide catch and production figures to the DOF. State fisheries also report to the Fisheries Department HQ and their data is also collated for the Annual Report.

97. Some data will be required from other government bodies. The sources of data are given in the table.

98. In that the data against which progress will be monitored is generally produced annually, monitoring itself will be annual.

	Policy Area 1 Governance								
Objective	Indicators	Source of data	Current situation	Milestones	Timeframe to complete				
1) To produce a modern and robust legal framework for fisheries and aquaculture in South Sudan	Operational Fisheries Legislation in place Fisheries and Aquaculture Regulations disseminated to relevant authorities. Enforcement of laws and regulations by States authorities	Reports Gazette	Non-existent	Draft Legislation produced Draft Legislation approved by Ministry of Justice Legislation passed by Parliament Regulations drafted Regulations gazetted	2016				
2) To improve the climate for internal and Foreign Direct Investment to fisheries and aquaculture	Number of Inward Foreign and Internal Investment in the sector	Department of Commerce statistics DOF annual reports	No significant investment in the sector	Joining EAC Preparation of Guide to Investment Land Commission produces policy on Land Tenure for Aquaculture	No end. An ongoing process				
<ul> <li>3) To improve cooperation</li> <li>between</li> <li>Government</li> <li>Departments and</li> <li>Institutions on</li> <li>crosscutting issues</li> </ul>	Formation of Committees covering Fisheries Interests	DOF Annual Reports Annual Reports of other Ministries and Directorates	Very little communication between Government Ministries and Directorates on cross cutting issues		Some committees established by end 2013				

Objective	Indicators	Source of data	Current situation	Milestones	Timeframe to complete
4) To enhance communications, data flow and coordination within Directorates of RSS MARF and between DOF and the 10 states.	Numbers of field trips by DOF officers Number of Fisheries Meetings held Creation of database of Fisheries Contacts (a Fisheries Address book for SS)	SMARFs Annual Reports DOF annual report Meeting and workshop reports RSS MARF annual report	Limited contact between SMARFs and DOF Great difficulties in contacting individuals No Fisheries Meetings etc	First Fisheries Meeting (2012) Production of Address book	Immediate implementation, then ongoing as routine activity of DOF. RSS MARF and SMARFs
5) To maintain a healthy environment and ecosystems	Reported incidents of pollution Biological and chemical indicators	Environment Ministry reports News paper reports DOF Annual Report	No information Anecdotally much local pollution and some environmental damage near population centres	Agreements with oil companies MOUs with Environment Ministry & others Active monitoring systems established	Ongoing as routine activity of DOF/RSS MARF
6) To ensure sustained and profitable use of shared resources	Transboundary meetings. Multi-sectoral engagements	DOF Annual Reports Ministry of Foreign Affairs Reports and press releases Press Reports	DOF not represented in any Transboundary Meetings	Invitation to a Transboundary meeting on water.	Immediate implementation, then ongoing as routine activity of DOF/RSS MARF

Objective	Indicators	Source of data	Current situation	Milestones	Timeframe to complete
7) To raise the profile of fisheries as a sector so as to obtain extra resources for the DOF and for States fisheries departments	Press coverage Media Attention Numbers of DOF Press Releases Number of Committees to which DOF are invited DOF budget DOFs ability to attract funding for projects	DOF Annual Report	Press coverage is limited to events, such as workshops DOF very much a junior partner in MARF	DOR becomes a National Fisheries Authority or similar or Deputy Minister appointed for Fisheries or Ministry of Fisheries Established	Immediate implementation, then ongoing as routine activity of DOF/RSS MARF
8) To combat HIV and AIDS in the workplace and in the industry	Numbers of HIV positive in Workforce Budget allocation to HIV & AIDS	AIDS Commission reports DOF reports RSS MARF reports	There is no information at all on HIV & AIDS in Fisheries There is no activity in MARF on HIV & AIDS prevention etc	DOF AIDS strategy produced	Ongoing as routine activity of DOF/RSS MARF
9) To act on Gender Issues and the Rights of the Child	Policy production	DOF Reports RSS MARF Reports Ministry of Gender, Child and Social Welfare reports and press releases	There is no policy, not any proactive action on Gender and Child Rights issues	Unified policy agreed with cross cutting ministries Production of Policy	Ongoing as routine activity of DOF/RSS MARF
10) To respond appropriately to climate change and natural disasters	Policy production	DOF Annual report	DOF not involved in anything to do with climate change	Formation of committee on Climate change	As and when necessary

Objective	Indicators	Source of data	Current situation	Milestones	Timeframe to complete
11) To improve occupational safety for fisherfolk	Reduction in drownings and attacks from wild animals on fisherfolk Small boat safety training undertaken	SMARF reports DOF annual report Press reports	Nothing being done at all	Small boats safety manuals produced Boat safety included in FTC curricula	Recommendations and COP by 2017
	Polic	ey Area 2. H	uman Resou	rces	
<ol> <li>To ensure that DOF and States' Fisheries Departments are fully staffed and funded</li> </ol>	Numbers of staff employed relative to staff establishment lists Budgets agreed & provided	Annual budgets of SMARFs and RSS MARF	Many gaps in establishment lists SMARFs and DOF seriously underfunded Extension services do not work No HR plan	HR plan for SMARFs and DOF	Should form part of annual budgeting activity and staffing review. HR Plan 2005 Posts filed 2006
2) To strengthen extension services in the 10 states	Numbers of extension workers. Training courses etc for extension workers	DOF reports SMARFs reports	Extension not happening Untrained extension workers Insufficient extension workers	Development of curricula Training courses initiated Budgets for extension approved	Ongoing as routine activity of DOF/RSS MARF (depends on recurrent budgets available)
3) To develop the skills and qualifications of the staff in DOF, in the 10 States and the private sector	Numbers of courses run Number of overseas attachments/trainings Padak FTC courses Fish production TVET courses University Degrees	DOF Annual Report University Reports TVET reports Fish Production figures from SMARFs	Very little training going on at all. Padak FTC not fully utilised Limited overseas training opportunities	Padak FTC retained in DOF Committees formed on training	Ongoing from 2012

Objective	Indicators	Source of data	Current situation	Milestones	Timeframe to complete
	awarded				
	P	olicy Area	3. Researcl	h	
1) To improve quality and relevance of research in fisheries and aquaculture	Numbers of researchers in aquaculture in fisheries Numbers of research papers published	DOF reports DOF annual report Research Centre reports	No research being done in South Sudan on Fisheries	Establishment of Aquaculture Research Centre Establishment of Fisheries Research Centre University research programmes established	2019
2) To collect, collate and disseminate data on all aspects of fisheries and aquaculture throughout the country	Number and quality of Baseline surveys undertaken Statistics produced on fisheries on a regular basis Data is disseminated to the users	DOF Annual Report SMARF reports	Very few statistics being collected in South Sudan on fisheries or aquaculture. What is collected is not collated nor analysed	Elaboration of a unified statistics collection system for south Sudan DOF starts producing an annual report	Dependant on establishment of research centres. Probably at least 2018
3) To preserve indigenous knowledge, on fisheries	Data base set up	DOF Annual Report RSS MARF report	Does not exist	Establishment of the database in RSS MARF or a university	2015 & maintain

Objective	Indicators	Source of data	Current situation	Milestones	Timeframe to complete
4) To monitor environmental changes affecting fisheries including climate change	Changes in climate affecting fisheries indentified Number of Mitigation measures put in place	DOF Reports	Nothing supporting research into climate change effects on fisheries exists in DOF or SMARFs	Establishment of a Hydrology Unit	2019
5) To improve information distribution, communication and technology systems	Actual production of a DOF Annual report DOF Website established	DOF Website! DOF Annual Report	No Annual report produced. There is no DOF website No distribution of data to SMARFs etc	Starting to produce an Annual Report	2012 then routine
	Polic	ey Area 4. C	apture Fishe	eries	
1) To manage the fisheries resources of the South Sudan so as to maximise production and avoid overfishing	Positive Fish production trends Numbers of Fish Management Bodies established Production of Management plans for stocks and geographic areas	DOF Reports SMARF reports	No statistics collected or disseminated so not known No management plans for any stock or area Very few management bodies established	Systems established to collect data Formation of Fisheries Management Bodies Management plans produced for SUDD and other significant areas	Start immediately then ongoing (needs donor support)
2) To control overexploitation of fish stocks and	Systems for MCS established	DOF Reports SMARF reports	No MCS occurs. Licensing is a revenue raising	MCS system designed and implemented	Start immediately then ongoing (needs donor

Objective	Indicators	Source of data	Current situation	Milestones	Timeframe to complete
eradicate IUU fishing			exercise not a fisheries management tool		support)
3) To increase production from under-exploited stocks and areas	Reports of increase in Fish production by region	DOF reports SMARF reports	Underexploited resources exist but their scale and location is not known with certainty	New areas exploited with appropriate gears	Ongoing from 2012
4) To develop a sport fishing industry	Numbers of sport fish licenses issued	SMARF reports on licensing Ministry of Tourism data	No sport fishing	Sport fishing acknowledged as a possible future activity Sport fishermen come to SS	2018
5) To develop the aquarium trade	Number of aquarium fish licenses issued	SMARF Licenses issued	No aquarium fish industry	License designed Licenses issued	Immediate
	Р	olicy Area 5	Aquacultur	e	
1) To attract private Investment to Aquaculture by creating an enabling environment	Investment levels in aquaculture Production of Master plan for aquaculture COP for Aquaculture Produced	DOF Reports & Annual Report Ministry of Commerce, Industry & Investment SMARF reports	No commercial aquaculture in south Sudan No interest shown	Establishment of commercial fish farms in SS	2015 then ongoing

Objective	Indicators	Source of data	Current situation	Milestones	Timeframe to complete
2) To attract funding for development of integrated Agriculture/ Aquaculture in rural areas	Numbers of integrated fish ponds established	AIDS Commission DOF reports	None established	Donor support found Hatcheries set up	Immediate then ongoing
3) To regulate the production of feed for aquaculture	Internationally standard feed available in SS	DOF reports	No feed supply at all except locally sourced crude feeds	Establishment of COP Feed available in SS	2015 depending on regulations
4) To control diseases in aquaculture & improve reporting	Production of the regulations Disease outbreak reported & controlled	DOF reports SMARF reports	No disease reporting & no responses planned	COP production	2015 depending on regulations
5) To control species introductions and transfers in Aquaculture	A document on the regulations produced and operational	DOF reports SMARF reports	No reporting & no responses planned	COP & guideline production	2015 depending on regulations & laws
<ul> <li>6) To enhance aquaculture in areas where irrigation schemes</li> <li>&amp; dams are created</li> </ul>	Numbers of cage culture enterprises Numbers of ranching enterprises etc	DOF reports SMARF reports Ministry of Irrigation & dams reports	None exist	MOU with Irrigation & Dams	As and when
7) To address environmental concerns regarding Aquaculture	COPs for protected areas and for aquaculture and the environment	DOF reports Ministry of Wildlife and Tourism reports	Nothing being done	COPs produced	2012 and ongoing

Objective	Indicators	Source of data	Current situation	Milestones	Timeframe to complete					
	Policy Area 6 Post Harvest									
1) To reduce post harvest losses	Amount of fish lost Profitability of processing establishments Price of processed fish Numbers of fish processors trained Numbers of ice machines and landing sites established.	DOF reports	There are no COPs nor other controls on fish post harvest. Very little investment in the sector Not enough ice machines in urban areas and none in remote areas	COPs produced Training programmes established	2012 and then ongoing					
2) To ensure safety of fisheries products	Presence of the Competent authority Local system of inspection and control established Imported fish regulations made	DOF reports Directorate of Standards Ministry of commerce, Industry and Investment	No competent authority No legislation No COPs Nothing being done in the area	Competent Authority established Legislation made COPs produced	CA by 2025 (long term objective) Legislation by 2015 COPs 2015					
3) To increase in per capita fish consumption from current low levels	Fish Consumption reports	DOF figures Ministry of Health	About 3kg/person per year	4kg/year/person ?	Ongoing					
4) To develop appreciation of the role of capture fisheries and aquaculture in food	Fish Consumption reports	DOF Figures Ministry of Health	Little integrated aquaculture Little appreciation of the sector or its activities	Food Security Programmes include Fisheries & Aquaculture Funds obtained on	Ongoing					

Objective	Indicators	Source of data	Current situation	Milestones	Timeframe to complete
security				food security basis	
5) To increase the value of fisheries and aquatic products	Fish Processing Value of fish products Variety of fish products Fish Exports	DOF figures Ministry of commerce, Industry and Investment	Fish sold dried and fresh with no value adding & great post harvest loses	New products appear in the markets Prices for luxury products increase Exports begin	Ongoing and as required

# 9 Review process

# 9.1 Review of Policy

99. The trigger for a policy review is the review cycle, established in the policy and in this case every 5 years from first approval, for the entire policy. However the policy, or parts of it, may be reviewed more often if there are significant changes in the operating environment which require it, such as:-

- changes to the external operating environment (such as a new tariff or trade regime, new international protocols)
- changes to government policy or legislation (overarching policy may change with changes in government, e.g. the Poverty Reduction Strategy, Expenditure Reviews, new Constitution)
- review of the strategic directions of the Fisheries (in time the requirements of the Fisheries section may change)
- new initiatives within management areas that are the responsibility of Fisheries (technology, availability of donor funding, new co-operative ventures with other service providers)
- need for consistency across areas of service delivery, where these have diverged from existing practises. (Perhaps in the collection or collation of data from aquaculture).

## **Review of Existing Policy, Objectives and Activities**

- The review cycle for the policy (and objectives, since these are a core of the policy) is 5 years, though if there is a seismic shift in Government Policy this may require shortening to fit in with newly overarching objectives established.
- Activities and procedures will be reviewed annually, at budget time, and related to the information contained in the DOF annual report. At this time minor changes to activities, procedures or timelines can be introduced so as to make the policy reactive to changing conditions, such as financing, success or failure of aspects of the policy or unexpected shocks.
- Review dates will be set to allow adequate time for revision and approvals processes, however with the annual review of activities this will align very closely with that required of the budget cycle, since the two are inextricably linked.
- Minor editorial or practical updates that do not affect the substance of the policy do not need to go through any approval process.

#### **Process of review**

- The process for a review of or a new policy and/or activities & procedures will be initiated by DOF or RSS MARF and may include environmental scanning and comparative analysis of relevant internal and external organisations, as well as investigation and analysis of:-
- relevant government policy and legislation, and national codes
- existing policies (internal)
- gaps
- need to revise or rescind each section

- consistency with other policies, plans and government objectives (external to RSS MARF itself)
- possible constraints on implementing the policy
- previous records of relevant bodies
- other relevant data, including the results of any new SWOT analyses undertaken on the main pillars of the policy
- The research process for any review is:-
- Whether the policy and/or procedures is still consistent with best practice, strategic directions, and changes in national codes or government policy and legislation. Is it coherent within the current policy framework of government?
- Is the policy still relevant to the needs of the fisheries sector?
- Whether the policy meets stakeholders' needs. Has the policy been effective in achieving the objectives set?
- Constraints on implementing the policy at lower organisational levels, particularly within the Extension Service in the States and the local management bodies. What lessons have been learned with the implementation of the policy?
- The level of compliance with the existing policy and/or procedures; indicating weaknesses. How effective has the policy been?
- Whether any related sub-policies need to be revised or rescinded

## It will be necessary to:-

- Consult key stakeholders
- Amend or revise the policy
- A revised draft is prepared and a new round of consultation with the key stakeholders is initiated
- This cycle is repeated until no further amendments/revisions are recommended by the key stakeholders

# 9.2 Checklist for Review of Policy

#### Is there any substantial need to undertake a review of the policy?.

- I. Have general conditions changed so much as to render the old policy invalid?
- II. Is government demanding a change of direction, significant enough to justify a review of policy?
- III. Have there been any serious problems implementing the existing policy?
- IV. Can the policy be modified or changed without requiring a completely new policy document? (If so then attempt to modify parts of the policy rather than completely re-review the whole document)
- V. Does a need exist to address a gap or meet compliance standards? (It may be possible to amend or add on to the policy rather than do a complete revision, or to introduce regulations outside the policy itself)

VI. Is it the policy that requires review? (Perhaps issuing new updated regulations or adjusting procedures may solve an identified problem better than changing policy).

# If the policy does appear to be needing revision then an evaluation should be carried out so as to feed the process of the revision

- I. Undertake a problem analysis, identifying stakeholders, focal problems, develop problem trees. Logical Framework Process Workshops are an effective way of identifying problems.
- II. Define the objectives and develop indicators for each of the objectives. Make sure that the Objectives are Specific, Measurable, Achievable, Realistic and Time Dependent (SMART).
- III. Look at the alternatives mechanisms for achieving the objectives. Are they appropriate? Are the ones chosen really the "best possible"?
- IV. Have the lessons of the past really been understood? Has a study of the effectiveness of the policy been undertaken? Is this being incorporated into the future policy?
- V. Was monitoring and evaluation of the previous policy undertaken, and what are the results of this exercise?
- VI. Has any effort been made to assess cost effectiveness of the various strategies in the policy?

# Then a final series of checks that during the process of review:-

- I. Have all other stakeholders been consulted; interviews, workshops, consultations by e-mail & web based?
- II. Have the problems been effectively identified?
- III. Has feedback been incorporated into the policy review process?
- IV. Have issues on Gender, HIV AND AIDS, rights of the child, equality, fairness, diversity and other priorities of government policy been incorporated into any changes proposed
- V. Are the new proposals compliant with international agreements?
- VI. Have the alternative delivery mechanisms been examined?
- VII. Does the risk assessment show undue threats to implementation?
- VIII. Are the Objectives "SMART" (Specific, Measurable, Accepted, Realistic and Time Dependent)?

#### And ensure that the new policy

- I. Will satisfy the needs of the stakeholders in the short and long term (depending on the length of validity of the policy = 5 years in South Sudan)
- II. Clearly defines the objectives to be achieved from each strategy
- III. Fits in with current practice where this exists, and with all stated government policies, objectives and existing activities
- IV. Incorporates the lessons learned from previous implementation
- V. Covers all the relevant multi-agency aspects

- VI. Covers issues arising from implementation, most importantly the level of financing which will be required; and the cost effectiveness of the activities proposed
- VII. Contains a monitoring and evaluation process & a timeline.

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