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of the United Nations



FAO Representation in Sudan

Government of the Republic of Sudan:

Ministry of Agriculture and Irrigation

Ministry of Livestock, Fisheries and Rangelands

Ministry of Environment, Forestry and Physical Development



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Country Programming Framework for Sudan

PLAN OF ACTION (2015-2019): Resilient Livelihoods for Sustainable Agriculture, Food Security and Nutrition

Food and Agriculture Organization of the United Nations

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TABLE OF CONTENTS

	Page
ACRONYMS AND ABBREVIATIONS	iii
EXECUTIVE SUMMARY	v
1. INTRODUCTION	1
2. CHALLENGES TO FOOD SECURITY AND AGRICULTURAL DEVELOPMENT IN SUDAN	5
2.1 Socio-economic Context	7
2.1.1 Economic Background	7
2.1.2 Rural Poverty	8
2.1.3 Food Security	8
2.2 Sectoral Context	9
2.3 Hazards and Stresses to Crops, Livestock, Fisheries and Forestry Production	11
2.4 Status of the Agriculture Sector	15
2.4.1 Current Strengths and Weaknesses	15
2.4.2 Potential Opportunities and Threats	16
2.5 Climate Change	17
2.6 Humanitarian Context	18
3. AGRICULTURAL POLICY, STRATEGY AND INSTITUTIONAL CONTEXT OF SUDAN	19
3.1 National Institutional Setting	21
3.2 Interim Poverty Reduction Strategy Papers I and II (2011-2016)	21
3.3 Second Five-Year Development Plan (2012-2016)	22
3.4 Three-Year Economic Salvation Programme (2012-2014)	22
3.5 Agricultural Revival Programmes (2008-2014)	22
3.6 Comprehensive Africa Agriculture Development Programme in Sudan	23
3.7 IGAD's Initiative to End Drought Emergencies in the Horn of Africa – Sudan Country Programming Paper (2014)	24
3.8 Darfur Development Strategy (2013-2019)	25
3.9 Recent Legislation	26
3.10 United Nations Development Frameworks and Response Plans	27
3.10.1 United Nations Development Assistance Framework, 2013-2016	27
3.10.2 Strategic Response Plans	28
3.10.3 Food Security and Livelihood Cluster/Sector	29
4. FAO'S APPROACH TO RESILIENT LIVELIHOODS FOR SUSTAINABLE AGRICULTURE, FOOD SECURITY AND NUTRITION IN SUDAN	31
4.1 FAO's Strategic Framework	33
4.1.1 FAO's Strategic Objectives	33
4.1.2 FAO's Regional Initiatives	34
4.1.3 FAO's Country Programming Framework for Sudan (2012-2016)	34
4.1.4 FAO's Programme for Agricultural Recovery, Reconstruction and Development in the Darfur Region	35
4.2 Resilient Lens to Sustainable Agriculture, Food Security and Nutrition in Sudan	36
4.3 FAO's Good Practices in Sudan's Agriculture Sector	39
4.4 FAO's Comparative Advantage in Sudan	41

5. CPF PLAN OF ACTION FOR SUDAN – FRAMEWORK	43
5.1 Goal	45
5.2 Objectives	45
5.3 Timeframes of Proposed Intervention Areas	46
5.4 Intervention Areas	48
5.5 Timelines for Proposed Projects and Programmes	49
5.6 Cross-cutting Actions	56
5.6.1. Stakeholder Capacity Development	56
5.6.2. Food-based Nutrition	57
5.6.3. Gender Equality	58
5.6.4. Peace and Stability Building	59
5.7 Plan of Action Budget	60
6. THE WAY FORWARD	61
6.1 Programme Coordination	63
6.2 Funding Modality	63
6.3 Strategic Partnerships	64
ANNEXES	67
1. IGAD'S INITIATIVES TO END DROUGHT EMERGENCIES IN THE HORN OF AFRICA: SUDAN COUNTRY PROGRAMMING PAPER – SUMMARY OF THE RESULTS FRAMEWORK	67
2. DDS PIILLARS: AGRICULTURE-RELATED OBJECTIVES AND KEY OUTPUTS	72
3. FAO'S REGIONAL AND NATIONAL PERSPECTIVE	74
4. SUDAN CPF/PoA INTERVENTION AREAS: PROGRAMMES AND PROJECTS	83
5. CONNECT OF CPF/POA OUTCOMES WITH GLOBAL, REGIONAL AND NATIONAL POLICIES/STRATEGIES	109

ABBREVIATIONS AND ACRONYMS

AfDB	- African Development Bank
ARC	- Agricultural Research Corporation
ARP	- Agricultural Revival Programme (of the Government of Sudan)
AU-IBAR	- African Union Inter-African Bureau for Animal Resources
CAADP	- Comprehensive Africa Agriculture Development Programme
CAHW	- Community animal health worker
CAP	- Consolidated Appeal Process (of the United Nations)
CARD	- Community animal resources development (service)
CARDA	- Community animal resources development associate
CB	- Capacity Building (project of SPCRP)
CBO	- Community-based organization
CCA	- Climate change adaptation
CERF	- United Nations' Central Emergency Response Fund CGIAR - Consultative Group for International Agricultural Research
CHF	- United Nations' Common Humanitarian Fund
CIDA	- Canadian International Development Agency
CODEX	- Codex Alimentarius (FAO/WHO/WTO food standards)
CPF	- Country Programming Framework (of FAO)
CPP	- Sudan Country Programming Paper (of IDDRSI)
CSO	- Civil society organization
DCPSF	- Darfur Community Peace and Stability Fund
DDPD	- Doha Document for Peace in Darfur
DDS	- Darfur Development Strategy
DLC	- Darfur Land Commission (of DRA)
DRA	- Darfur Regional Authority
DRM	- Disaster risk management
DRR	- Disaster risk reduction
ECTAD	- Emergency Centre for Transboundary Animal Diseases (of FAO)
EMPRES	- Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases
EU	- European Union
EUR	- Euro
FAO	- Food and Agriculture Organization of the United Nations
FEWSNET	- Famine Early Warning System Network (of USAID and WFP)
FFS	- Farmer field school
FMD	- Foot-and-mouth disease
FNC	- Forests National Corporation
FSL	- United Nations Food Security and Livelihoods (cluster/sector)
FSN	- Food security and nutrition
FSPS	- Food Security Policy and Strategy Capacity Building Programme
FSTS	- Food Security Technical Secretariat (of MoAI)
GAM	- Global acute malnutrition
GAP	- Good Agriculture Practice
GDP	- Gross domestic product
GHP	- Good Hygienic Practice
HAC	- Humanitarian Aid Coordination Commission
HIPC	- Highly Indebted Poor Countries Initiative
HNO	- Humanitarian Needs Overview (of SRP)
IDDRSI	- IGAD Drought Disaster Resilience and Sustainability Initiative
IDP	- Internally displaced people
IFAD	- International Fund for Agricultural Development
IFSP	- Integrated Food Security Project
IGAD	- Intergovernmental Authority on Development (of eight East African States)
IPC	- Integrated Food Security Phase Classification
IPM	- Integrated pest and disease management
I-PRSP	- Interim Poverty Reduction Strategy Paper
IPSNM	- Integrated plant soil nutrient management
MDG	- Millennium Development Goal

MoAI	- Federal Ministry of Agriculture and Irrigation
MoEFPD	- Federal Ministry of Environment, Forestry and Physical Development
MoH	- Federal Ministry of Health
MoLFR	- Federal Ministry of Livestock, Fisheries and Rangelands
MoWE	- Federal Ministry of Water and Electricity
M&E	- monitoring and evaluation
NAIP	- National Agriculture Investment Plan (in Sudan)
NBHS	- National Baseline Household Survey
NEPAD	- New Partnership for Africa's Development (of the African Union)
NGO	- Non-governmental organization
NRM	- Natural resource management
OCHA	- United Nations Office for the Coordination of Humanitarian Affairs
OFDA	- Office of United States Foreign Disaster Assistance (of USAID)
OFWM	- On-farm water management
OIE	- World Organisation for Animal Health
PoA	- Plan of Action (of CPF)
PCU	- Programme Coordination Unit
RNE	- Regional Office for the Near East (of FAO)
PPP	- Public-private partnership
REDD+	- Reducing Emissions from Deforestation and Forest Degradation (programme of the United Nations)
RIMA	- Resilience Index Measurement and Analysis
SBEF	- Sudanese Businessmen and Employers' Federation
SIFsIA	- Sudan Institutional Capacity Programme: Food Security Information for Action (EU/FAO)
SO	- Strategic Objective (of FAO)
SPCRP	- Sudan Productive Capacity Recovery Programme (EU/FAO)
SPGS	- Strategic Planning Central Secretariat
SPS	- Sanitary and phytosanitary
SRP	- Strategic Response Plan (of UNHT)
SSA	- Small-scale agriculture
SWOT	- Strengths, weaknesses, opportunities and threats (analysis)
TAD	- Transboundary animal disease
TCP	- Technical Cooperation Programme (of FAO)
UK/DFID	- United Kingdom/Department for International Development
UNCT	- United Nations Country Team (in Sudan)
UNDAF	- United Nations Development Assistance Framework
UNDP	- United Nations Development Programme
UNEP	- United Nations Environment Programme
UNHT	- United Nations Humanitarian Team (in Sudan)
UNICEF	- United Nations Children's Fund
UNIDO	- United Nations Industrial Development Organization
UNOPS	- United Nations Office for Project Services
UoCAP	- Union of Chambers of Agriculture and Production (of SBEF)
USAID	- United States Agency for International Development
USD	- United States Dollar
VGGT	- Voluntary Guidelines on the Responsible Governance of Tenure of Land in the Context of Food Security
WFP	- World Food Programme
WHO	- World Health Organization
WTO	- World Trade Organization

EXECUTIVE SUMMARY

1. Introduction

In June 2012, the Federal Minister for Agriculture and Irrigation and for Livestock, Fisheries and Rangelands, on behalf of the Government of Sudan and the Food and Agriculture Organization of the United Nations (FAO) Representative in Sudan, signed the “Country Programming Framework (CPF) for the Republic of Sudan (2012-2016)”. The CPF is a “roadmap” for FAO-Sudan to support the Federal Ministries of Agriculture and Irrigation (MoAI) of Livestock, Fisheries and Rangelands (MoLFR) and of Environment, Forestry and Physical Development (MoEFPD), and the Government of Sudan at large, in the improvement of food security, reduction of rural poverty, sustainable management of natural resources and overall development of the country’s agriculture sector.

Between September and November 2014, FAO-Sudan and the Government of Sudan undertook a “mid-term review” to update and revise the CPF. This has been necessary because of its unclear alignment with the evolving country situation (with regard to changes in Government policy following the secession of South Sudan and the subsequent loss of oil revenues and downturn in Sudan’s economy), inherent lack of synergies and integration between development and emergency interventions and the need for a more resilience focus, lack of resource mobilization and communication strategies and a need to further prioritize the outcomes and outputs of the Framework, given its broad range of priority actions (*viz a viz* FAO’s comparative advantage in Sudan).

As part of the CPF mid-term review process, FAO developed a resilience-focused action plan to operationalize the Framework. The resultant CPF Plan of Action (PoA) for Sudan was prepared on the basis of a detailed review of existing strategy documents and close consultations with decision makers of concerned Government ministries, civil society and private sector organizations and policy and technical officers of the FAO Representation in Sudan and its programmes and projects – taking into account the priorities and interventions of MoAI, MoLFR, MoEFPD and their development partners, to ensure synergies and complementarities.

2. Situation Analysis

2.1 The Rural Setting

Agriculture is important to Sudan’s economy given that:

- The total population of Sudan is 36.2 million; of which two-thirds live in rural areas.
- The national poverty rate is 47 percent; but 58 percent of the population are “poor” in rural areas.
- 3.9 million people are food insecure (November/December 2014 IPC Report).
- Agriculture accounts for nearly one-third of the national Gross Domestic Product.
- Nearly half of the national workforce is engaged in agriculture (i.e. crop, livestock, fisheries and forestry production) and agroprocessing industries.

2.2 Challenges to the Agriculture Sector

Given the decline of agricultural growth over the past two decades and the secession of South Sudan in 2011, with its loss of oil revenues and subsequent downturn in the country’s economy, the strengths and weaknesses of Sudan’s agriculture sector could be interpreted as reflecting the need for:

- Development of technical and functional capacity for policy and planning.
- Enhancement of agriculture productivity and production.
- Increasing public and private sector agricultural research and development.
- Reforming land tenure and land-use systems.
- Improvement of data collection and analysis for food and nutrition security.
- Public and private investment in rural infrastructure, e.g. irrigation systems, slaughterhouses, agroprocessing facilities and markets.
- Rehabilitation of rangelands (i.e. pastures and water supplies) and facilitation of fair resource sharing.
- Increasing monitoring and provision of veterinary services for better transboundary animal disease outbreak management.
- Expanding disaster risk management to include challenges arising from climate change.

2.3 Opportunities for Agricultural Development

The potential opportunities of the Sudanese agriculture sector have remained unchanged for decades, but recent liberalization of some agricultural commodities and increasing income-creation opportunities for smallholders through the recognition of producer organizations and improving food and nutrition security information flows, knowledge management and policy development have enhanced many of the opportunities listed as follows:

- Rich natural resource base:
 - 175 million *feddans*¹ (74 million ha) of unused cultivable land;
 - 90-120 million heads of animals;
 - marine and freshwater fisheries resources;
 - underground and surface water supplies; and
 - biodiversity and genetic pool.
- Large yield gap between research centres and farms provides a large potential to increase agricultural production.
- Good prospects for reducing post-harvest losses and adding value in key agricultural products for improving incomes and diet diversity/food-based nutrition of rural households and increasing exports.
- Close proximity to important markets, i.e. COMESA, Middle East, Gulf states, Europe, etc.
- Great potential to increase inflow of foreign direct investment.

3. FAO's Approach to Sustainable Agriculture, Food Security and Nutrition

3.1 FAO's Strategic Objectives

In order to achieve its Vision of a “*world free of hunger and malnutrition and improved living standards*”, FAO has defined five Strategic Objectives (SOs), namely:

- SO1 – Contribute to the eradication of hunger, food insecurity and malnutrition.
- SO2 – Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner.
- SO3 – Reduce rural poverty.
- SO4 – Enable more inclusive and efficient agricultural and food systems at local, national and international levels.
- SO5 – Increase the resilience of livelihoods to threats and crises.

3.2 FAO's Regional Initiatives

In 2014, FAO's Regional Office for the Near East and North Africa (RNE) defined three Regional Initiatives in order to support the national policies and programmes of member countries, such as Sudan, through the delivery of products and services from across the results frameworks of FAO's five Strategic Objectives in an integrated and coordinated manner, namely:

1. Sustainable small-scale agriculture for inclusive development.
2. Building resilience to enhance food security and nutrition.
3. Water scarcity.

3.3 FAO's Good Practices in Sudan's Agriculture Sector

Several good practices have been tested and validated by the actors and beneficiaries of FAO's humanitarian relief, livelihood protection/recovery and agricultural development programmes and projects over the past decade and are recommended for replication and upscaling by Government agencies and civil society organizations (CSOs) and for sharing and adoption by greater numbers of smallholder farmers, pastoralists, fisherfolk and tree-dependent communities under interventions proposed for the CPF/PoA for Sudan. These include:

- Capacity development of government institutions and CSOs.
- Food security information systems for food security decision making and policy development.
- Control of transboundary plant and animal pests and diseases.
- Community-based animal resources development services.
- Farmer field school group-based approach to adaptive research and participatory extension.

¹ 1 *feddan* = 0.42 ha

- Community-based natural resource management.
- Water harvesting and on-farm water management.
- Post-harvest management, as part of the integrated value chain approach.
- Voluntary guidelines on the responsible governance of tenure of land in the context of food security (VGGT).
- Resource mobilization, implementation and operations for emergency relief food security and livelihood protection interventions.

4. Plan of Action – Framework

4.1 Goal

The overall goal of the PoA for Sudan is “to contribute to the improvement of food security and nutrition and the reduction of rural poverty in Sudan, while supporting the country’s longer-term economic development goals”. In this context, the PoA is in line with the Government of Sudan’s Interim Poverty Reduction Strategy Paper; Outcomes 1, 2 and 3 of the United Nations Development Assistance Framework (UNDAF) Pillars 1 and 2 and FAO’s five global Strategic Objectives.

4.2 Objective

The objective of PoA for Sudan is “to address the key challenges of food insecurity, malnutrition and rural poverty in hazard-prone areas of Sudan by strengthening the resilience of vulnerable smallholders through a cohesive programme supporting relevant household livelihood-protection and recovery, equitable and sustainable management of natural resources and agriculture development initiatives”. In this context, the PoA is in line with the Government of Sudan’s Second National Five-Year Strategic Development Plan (2012-2016) and Agricultural Revival Programme (2008-2014) and FAO’s three Regional Initiatives, and is in common with the Intergovernmental Authority on Development (IGAD)-led “Sudan Country Programming Paper – To End Drought Emergencies in the Horn of Africa” and the Darfur Regional Authority’s Darfur Development Strategy.

The PoA therefore aims to increase food availability and accessibility and diversify household incomes in order to decrease the risk of threats and crises faced by landless, marginal and small-scale men and women farmers over the extended period of the CPF (2015-2019). Moreover, the PoA prioritizes and promotes interrelated and mutually supporting and sustainable short-, medium- and long-term interventions at all levels (i.e. household, community and institutional) that would ultimately contribute to overcoming the underlying causes of vulnerability in Sudan.

4.3 Timelines for PoA Intervention Areas

The PoA for Sudan has a duration of five years (2015-2019) and is spread across three overlapping/interlocking tracks/timeframes, namely:

- i. Rapid-delivery and immediate-impact food and nutrition security and livelihood protection and short-term risk-sensitive agricultural policy/strategy development (*12 to 24 months*).
- ii. Medium-term delivery and impact for risk-sensitive research and development and institutional strengthening of the agriculture sector (*24 to 48 months*).
- iii. Long-term delivery and impact for rural livelihoods recovery and risk-sensitive agricultural and rural development (*36 to 60 months*).

4.4 Intervention Areas

The CPF/PoA for Sudan identifies four strategic intervention areas that mutually reinforce 17 short-, medium- and long-term overlapping/interlocking projects and programmes in support of the relief, recovery and development of Sudan’s small-scale agriculture sector, namely:

1. Improved policy and institutional environment for food and nutrition security and resilience programming – through capacity development, enhanced coordination and better-informed decision making and knowledge management and sharing systems (four short-term projects, one medium-term project and two long-term programmes).
2. Enhancing production, productivity and competitiveness of the crops, livestock and forestry subsectors and agricultural climate change adaptation (CCA) (two short-term projects, one medium-term project and one long-term programme).

3. Natural resource management and livelihoods, food security and nutrition response, protection and recovery (one medium-term project and three long-term programmes).
4. National, regional and international control of threats to Sudanese food chains (two medium-term projects).

The PoA also includes the integration of seven ongoing FAO-implemented projects due for completion in 2015 and 2016 and five pipeline projects due for startup in 2015.

CPF/PoA for Sudan: Intervention Areas, Programmes and Projects

1. Improved policy and institutional environment for food and nutrition security and resilience programming – through capacity development, enhanced coordination and better-informed decision making and knowledge management and sharing systems				
SN	Track	Programme/Project Brief	Duration	Cost (USD)
1.1	Short-term	Institutional strengthening of decision makers in the agriculture sector	18 months	500 000
1.2	Short-term	Multistakeholder platform for disaster risk reduction and crisis management	24 months	500 000
1.3	Long-term	Capacity development for food security and nutrition information management, policy and programming	60 months	27 800 000
1.4	Medium-term	Capacity development for national forest resource assessment and monitoring	36 months	3 200 000
1.5	Short-term	Environment, forestry and climate change management capacity strengthening	18 months	500 000
1.6	Short-term	Role for private sector support to smallholder farmers in a reformed agriculture sector	12 months	156 000
1.7	Long-term	Coordination of food security, nutrition and agricultural economic recovery	60 months (5 yrs x 12)	2 500 000
2. Enhancing production, productivity and competitiveness of the crops, livestock and forestry subsectors and agricultural climate change adaptation				
<i>Ongoing and pipeline FAO projects:</i> FAO-funded “Development of a quality seed production system and value addition in Sudan”; Government of Italy-funded “Building household resilience through promoting adapted production technologies in livelihoods and natural resource management in the Red Sea State”; and “Peace and stability through responsible tenure governance in Darfur, funded through a Multi-partner Trust Fund (MPTF).”.				
SN	Track	Programme/Project Brief	Duration	Cost (USD)
2.1	Short-term	Climate change adaptation in key rainfed food crop, fodder crop and pasture varieties	24 months	3 600 000
2.2	Medium-term	Expansion of a quality seed production system (with value addition) through public-private partnerships	36 months	7 100 000
2.3	Long-term	Promoting climate-smart smallholder agricultural production and post-harvest management through improved adaptive research and participatory extension systems (such as farmer field schools [FFSs])	60 months	29 000 000
2.4	Short-term	Support to the private sector in smallholder rainfed agricultural mechanisation (through south-south cooperation)	24 months	500 000

3. Natural resource management and livelihoods, food security and nutrition response, protection and recovery

Ongoing and pipeline FAO projects: United Nations Darfur Community Peace and Stability Fund (DCPSF)-funded “Increasing cooperation between conflicting communities through promoting dialogue and enhancing livelihoods and natural resource management (NRM) in North and West Darfur States”; Canadian International Development Agency (CIDA)-funded and FAO and United Nations Industrial Development Organization (UNIDO)-implemented “Integrated food security project (IFSP) in Kassala State”; United Kingdom/Department for International Development (UK/DFID)-funded and FAO, United Nations Children’s Fund (UNICEF) and World Food Programme (WFP)-implemented “Joint resilience-building project in Kassala”; FAO-funded “Technical assistance to support food security and livelihoods of the pastoralist groups in West Kordofan State; Government of Qatar-funded “Recovery of livelihoods of vulnerable pastoralist and agropastoralist households in the Darfur region”; Government of Italy-funded “Building household resilience through promoting adapted production technologies in livelihoods and NRM in the Red Sea State”; FAO-funded regional project “Support to the institutional strengthening of the implementation of the IGAD/CAADP Compact to promote private and public investments in agriculture; Capacitation of freshwater aquaculture production for food security and rural development through enhanced tilapia seed and feed production and management TCP”; and “Peace and stability through responsible tenure governance in Darfur funded by the multi-donor trust fund”.

SN	Track	Programme/Project Brief	Duration	Cost (USD)
3.1	Long term	Recovery of livelihoods, food security and nutrition of vulnerable farming and agropastoralist communities in the Darfur region	60 months	46 900 000
3.2	Long term	Drought resilience and recovery of livelihoods, food security and nutrition of vulnerable pastoralists and agropastoralists along migratory stock routes in Sudan	60 months	37 270 000
3.3	Long term	Resilience building for malnourished rural families prone to extreme natural shocks	48 months	16 800 000
3.4	Medium term	Enhanced resilience for forest-dependent communities in the Gum Arabic Belt	48 months	6 200 000

4. National, regional and international control of threats to Sudanese food chains

Ongoing FAO project: FAO-funded “Surveillance and diagnosis of foot-and-mouth disease”

SN	Track	Programme/Project Brief	Duration	Cost (USD)
4.1	Medium term	Development of a national transboundary animal disease (TAD) surveillance, monitoring, reporting, early warning and control system	48 months	14 900 000
4.2	Medium term	Enhanced biosecurity, sanitary/phytosanitary control and early warning, and food quality and safety in Sudan	36 months	12 500 000

4.5 Mainstreaming Actions

There are four cross-cutting actions which would support the four PoA intervention areas and their 17 programmes/projects, namely:

- i. Stakeholder capacity development – according to FAO’s Corporate Strategy for Capacity Development (2012).
- ii. Food-based nutrition – according to the FAO/World Health Organization (WHO) Framework for Action on Nutrition (2014).
- iii. Gender equality – according to the FAO Policy on Gender Equality (2013).
- iv. Peace and stability building (integrated with VGGT).

4.6 Cost Estimate

The total cost of the PoA for Sudan is estimated at USD 210.37 million.

Plan of Action Cost Estimate – Intervention Areas		Plan of Action Cost Estimate – Track	
Intervention Area	USD	Track	USD
1. Policy development and information management	35 036 000	Short term	5 636 000
2. Crop production and agricultural CCA	40 160 000	Medium term	22 800 000
3. NRM and rural livelihoods	107 770 000	Long term	181 930 000
4. Control of threats to food chains	27 400 000	Total	210 366 000
Total	210 366 000		

5. Strategic Partnerships

FAO, would facilitate partnerships for the implementation of food and nutrition security and agricultural and rural development interventions with the following partners:

- government agencies, e.g. Higher National Councils; MoAI, MoLFR, MoEPPD, Ministry of Water and Electricity (MoWE) and Ministry of Health (MoH), and their respective corporations and State Ministries of Agriculture and Animal Resources; and Darfur Regional Authority (DRA) and local authorities;
- civil society, e.g. academic and research institutions, non-governmental organizations [NGOs], community-based organizations (CBOs) and men and women farmers'/pastoralists' unions and cooperatives;
- the private sector, i.e. consultants, consultancy firms, veterinary doctors, input suppliers, traders, food processors, wholesalers and retailers and exporters of food value chains;
- South-South Cooperation, i.e. deployment of short- and long-term specialists from countries such as Brazil, China, Egypt, India and South Africa to facilitate the exchange and uptake of development solutions and promote platforms for knowledge networking to develop national and institutional capacities; and
- development partners, i.e. international financing institutions, bilateral and multilateral donors and agriculture and rural development agencies/implementing partners, e.g. African Development Bank, Governments of Australia and Belgium, European Union, IGAD, International Fund for Agricultural Development (IFAD), Italian Development Cooperation, UK/DFID, UNICEF, United Nations Office for the Coordination of Humanitarian Affairs (OCHA), United States Agency for International Development (USAID) and its Office for U.S. Foreign Disaster Assistance (OFDA), World Bank, WFP and WHO.

1. INTRODUCTION



1. INTRODUCTION

Since 2011 and the succession of South Sudan and a downturn in the Sudanese economy, the Government of Sudan has advocated agriculture as the engine to effectively contribute to economic growth and export performance and to simultaneously advance people's livelihoods, reduce poverty, improve food security and nutrition and develop and protect natural resources (*as advocated in the Second Phase of the Agricultural Revival Programme [2012-2014] and the Darfur Development Strategy 2013-2019*). However, the genuine needs of Sudan's agriculture sector, and the role of the Food and Agriculture Organization of the United Nations (FAO) in supporting the Government in addressing those needs, are not totally reflected in the United Nations Development Assistance Framework (UNDAF) (2013-2016) nor in the Organization's own priority areas for its "Country Programming Framework (CPF)" for Sudan (2012-2016).

On 5 June 2012, the Federal Ministers of Agriculture and Irrigation and of Livestock Fisheries and Rangeland, on behalf of the Government of Sudan, and the FAO Representative in Sudan signed the "CPF for the Republic of Sudan (2012-2016)". The CPF is a "roadmap" for FAO Sudan to support the Ministries of Agriculture and Irrigation (MoAI), of Livestock, Fisheries and Rangelands (MoLFR) and of Environment, Forestry and Physical Development (MoEFPD) and the Government of Sudan at large in the improvement of food security, reduction of rural poverty, sustainable management of natural resources and overall development of the country's agriculture sector (Section 4.1.3).

In June 2013 – in response to adoption of the "Developing Darfur: a Reconstruction and Recovery Strategy (DDS)" by the Government of Sudan and the United Nations – FAO prepared a "Darfur Agricultural Recovery, Reconstruction and Development Programme" to address agriculture and natural resources-related objectives and outputs of DDS's three pillars, namely: (i) Governance, Justice and Reconciliation; (ii) Reconstruction; and (iii) Economic Recovery. The programme was prepared in cooperation with the Darfur Regional Authority, State Ministries of Agriculture and United Nations agencies and NGOs operating in the Darfur region. The total cost of short-, medium- and long-term resilience-focused interventions of the six-year programme is USD 146.4 million. To date, FAO has mobilized USD 9.7 million for short-term interventions in "food and nutrition security restoration and strengthening and livelihood resilience", with USD 2.7 million further available in a "hard" pipeline.

In February 2014, the FAO Regional Conference for the Near East and North Africa Region adopted three Regional Initiatives prepared by the Organization's Regional Office for the Near East and North Africa (RNE): "Sustainable Small-scale Agriculture", "Water Scarcity" and "Resilience for Food Security and Nutrition". The Conference also called upon Sudan to act as a model country for piloting actions under these initiatives.

Between September and November 2014, FAO Sudan and the Government of Sudan's CPF Steering Committee undertook a "mid-term review" to update and revise the CPF. This has been necessary because of its unclear alignment with the evolving country situation (with regard to changes in government policy since 2011), inherent lack of synergies and integration between development and emergency interventions and the need for a more resilience focus, lack of resource mobilization and communication strategies and a need to further prioritize the outcomes and outputs of the Framework, given its broad range of priority actions (*vis a vis* FAO's comparative advantage in Sudan).

As part of the CPF mid-term review process, FAO fielded a "programme formulation" mission to Sudan to support the development of a resilience-focused action plan to operationalize the CPF. The CPF "Plan of Action (PoA) for Sudan" was drafted on the basis of a detailed review of existing strategy documents (Chapters 3 and 4) and close consultations with decision makers of concerned government ministries, civil society, private sector organizations, policy and technical officers of the FAO Representation in Sudan and its programmes and projects, FAO/RNE and FAO Headquarters – taking into account the priorities and interventions of MoAI, MoLFR, MoEFPD and their

development partners – to ensure synergies and complementarities. Both the updated CPF and PoA were validated at a stakeholders' workshop held in Khartoum on 27 November 2014.

FAO is also supporting the Government of Sudan to prepare a two-year technical cooperation programme (TCP) project to support the Government in implementation of the Comprehensive Africa Agriculture Development Programme (CAADP) in Sudan through the development of an “agricultural investment map/inventory” – leading to a “National Agriculture Investment Plan (NAIP) in Sudan” – to coordinate effective and efficient public investments and properly inform national and international investors in the agriculture sector. NAIP would comprise: (i) a donor platform for agriculture and food security; and (ii) a resource mobilization strategy for public and private investments in agriculture and food security. NAIP is expected to be completed by November 2015 – incorporating many of the capacity development elements of the PoA.

The proposed CPF/PoA for Sudan and the forthcoming NAIP, with their strong narratives on the role of the agriculture sector and food industry in creating sustainable livelihoods for vulnerable men, women and youth and building the resilience of Sudanese rural communities and institutions, provides the basis for the formulation of a future multidonor programme for the country. In this context, the PoA tends to focus on capacity development initiatives such as promoting the strengthening of knowledge management and sharing systems, restructuring governance and reforming agricultural policies, promoting partnerships with the private sector, civil society and academia, re-orienting and strengthening private and public sector agricultural support services, upgrading the skills of smallholder farmers and pastoralists, sustainable management of natural resources, reducing losses and wastes, adding value and improving the quality of agricultural produce and protecting and restoring rural livelihoods (Chapter 5). This also includes the inclusive development of sustainable small-scale agriculture through building resilience to enhance food security and nutrition.

On the other hand, NAIP tends to focus on developing and marketing a portfolio of public and private investment opportunities in agriculture and simplify related investment procedures and attract further private sector investments in sector developmental/clustering activities (e.g. extension services, transportation, manufacturing of supplies and downstream agro-industries).

During the PoA formulation exercise, discussions with relevant United Nations agencies and development partners were held to assess possibilities of and potential added value for capacity development through joint programmes which would be implemented through partnerships (Chapter 6). Contacts were also established with key multilateral and bilateral donors in order to update them on FAO's activities and solicit their interest in supporting FAO and the Government of Sudan's interventions included under a proposed multidonor programme for resilient agricultural growth and food and nutrition security. It is anticipated that NAIP preparation will build on and integrate with these initiatives in order to complete a much larger agricultural investment for Sudan.

2. CHALLENGES TO FOOD SECURITY AND AGRICULTURAL DEVELOPMENT IN SUDAN



2. CHALLENGES TO FOOD SECURITY AND AGRICULTURAL DEVELOPMENT IN SUDAN

2.1 Socio-economic Context

2.1.1 Economic Background

Sudan is a low income and food deficit country with a population of approximately 36.2 million, of which two-thirds is rural. Gross domestic product (GDP) per capita averages USD 1 472 in nominal terms (World Bank; 2013). The growth rate of the GDP was 3.6 percent in 2014 – compared to 1.4 percent in 2013, 1.1 percent in 2012 and 1.9 percent in 2011. In 2012, agriculture accounted for nearly one-third of the total national GDP. In 2009, 34 percent of the total labour force was engaged in agriculture. Sudan is classified as a “low human development” country with a ranking of 166 out of 187 countries (United Nations Development Programme [UNDP]; Human Development Report 2014).

Substantial changes occurred in July 2011 as a result of the secession of South Sudan, including the loss of human and land resources, and three-quarters of the oil wealth. This reduced the Government’s revenues by 36.5 percent, caused a balance of payments shock, a fall in GDP growth of 0.7 percent from 2011 to 2012,, and an increase in annual inflation from 10 percent in 2010 to 37 percent in 2013. The United States Dollar (USD) exchange rate was cut by 66 percent in 2012, increasing the local cost of imported goods and services but improving export competitiveness. Recently, gold production has become the new panacea and has contributed to bringing back stability to the economy: gold exports were 46.1 tonnes in 2012 valued at USD 2.16 billion. The Government adopted a three-year Economic Salvation Programme (2012-2014) to respond to the challenges of the secession, and a comprehensive reform programme to address the deterioration of the country’s economic and financial situation via exchange rate reform, tax increase and imposing higher import tariffs (Section 3.4). However, Sudan’s real GDP is expected to grow over the coming years as domestic oil production increases and the agricultural and gold sectors perform solidly

Sudan’s debt burden is a significant development constraint. External debt in 2012 was USD 42 billion. Unsettled arrears and political fallout associated with Darfur led to obstructing relationships with many development partners and continue to constrain access to concessional financing, even though some humanitarian assistance continues. Sudan is potentially eligible for debt relief under different initiatives, including the Heavily Indebted Poor Countries Initiative (HIPC). Good progress has been made towards finalizing the technical work required for HIPC decision making, but the country still lags at pre-decision point. The Government has completed so far three important steps: (i) reconciliation of more than 90 percent of the end-2010 external debt stock in collaboration with creditors; (ii) approval by the Parliament of an ambitious “interim” Poverty Reduction Strategy Paper (I-PRSP) in June 2012 (Section 3.2); and (iii) sound track record of cooperation on economic policies and payments. The process for the preparation of the “full” II-PRSP was recently completed.

Sudan has been severely affected by armed conflict for more than two decades, which cost some 1.5 million lives and had devastating effects on rural livelihoods through destruction of assets, displacing people and imposing restrictions on access to farmland. Conflicts continue to exist in border areas post secession (i.e. Darfur and Eastern Regions, Blue Nile, South Kordofan and Western Kordofan States and Abyei protocol area). Conflicts among pastoralists, agropastoralists and crop farmers are widespread and rooted in disputes over ownership and use of natural resources. Land tenure practices and conversion of range and forest land into large mechanized farming is another cause of conflict. The recent influx of 90 000 refugees as a consequence of the current conflict in South Sudan (in addition to the existing caseload of 350 000 refugees) has only exacerbated the situation.

2.1.2 Rural Poverty²

Based on the latest available data, average rural poverty rates in Sudan are estimated at 58 percent, much higher than the national average and the urban poverty rate (47 and 27 percent, respectively³) (National Baseline Household Survey [NBHS]; 2009). The national poverty gap of 16 percent indicates that average expenditure falls to an equivalent of USD 1.37 or less per person per day, decreasing to about USD 1.00 for the rural poor. Subsectors expected to be most affected by rural poverty are small-scale farmers and agropastoralists of traditional rainfed farming systems, the landless and internally displaced people (IDP), households without assets and people in areas affected by drought and conflict. The main constraints on rural livelihoods are poor access to markets, lack of access to financial services, unpredictability of rainfall and water shortages, barriers on migratory routes for livestock, pest and disease outbreaks and conflicts and cattle raiding. Wage labour represents more than half of cash incomes in rural areas, indicating the extent to which agriculture is practiced for subsistence. Unemployment is higher (19.8 percent) in rural than in urban (12.1 percent) areas, and for females (24.7 percent) than for males (13.9 percent).

2.1.3 Food Security

The economic crisis, compounded by seasonal hardship and heightened conflict, has led to a deterioration of the food security and nutrition situation. The latest Integrated Food Security Phase Classification (IPC) estimates that 3.9 million people in Sudan are classified as “food insecure” and in “crisis” and “emergency” phases, with the majority of the affected population located in western parts of the country, particularly localities of the Darfur region and Red Sea State (Map 1). It should be noted that this data excludes populations from West Kordofan State, the Abyei protocol area, some localities in west Darfur and rebel-held areas of Blue Nile and South Kordofan States – where conflict and inaccessibility are adding to food insecurity and malnutrition levels. In this context, the target food insecure population figure according to the United Nations’ Humanitarian Needs Overview (HNO) for the 2015 Strategic Response Plan (SRP) is estimated at 4.6 million, which is 12 percent of Sudan’s total population (Section 2.6).

Food insecurity is strongly correlated to Sudan’s rainfed agricultural subsector. Over 70 percent of staple commodities (i.e. sorghum and millet) are grown in rainfed localities. There was an historically poor harvest in 2013/2014 – 48 percent lower than the previous year’s crop and 68 percent lower than the five-year average. Livestock, animal products and staple food crops continuously deteriorated in terms of trade. Current millet, sorghum and wheat prices are, on average, respectively 92, 82 and 64 percent higher than 2013. Prices for these commodities were 150 to 160 percent above the July five-year average. Seed shortages and increased costs of agricultural inputs have reduced the overall area planted, with a consequence on the season’s performances. However, 2015 should see an above-average harvest due to higher than expected rains.

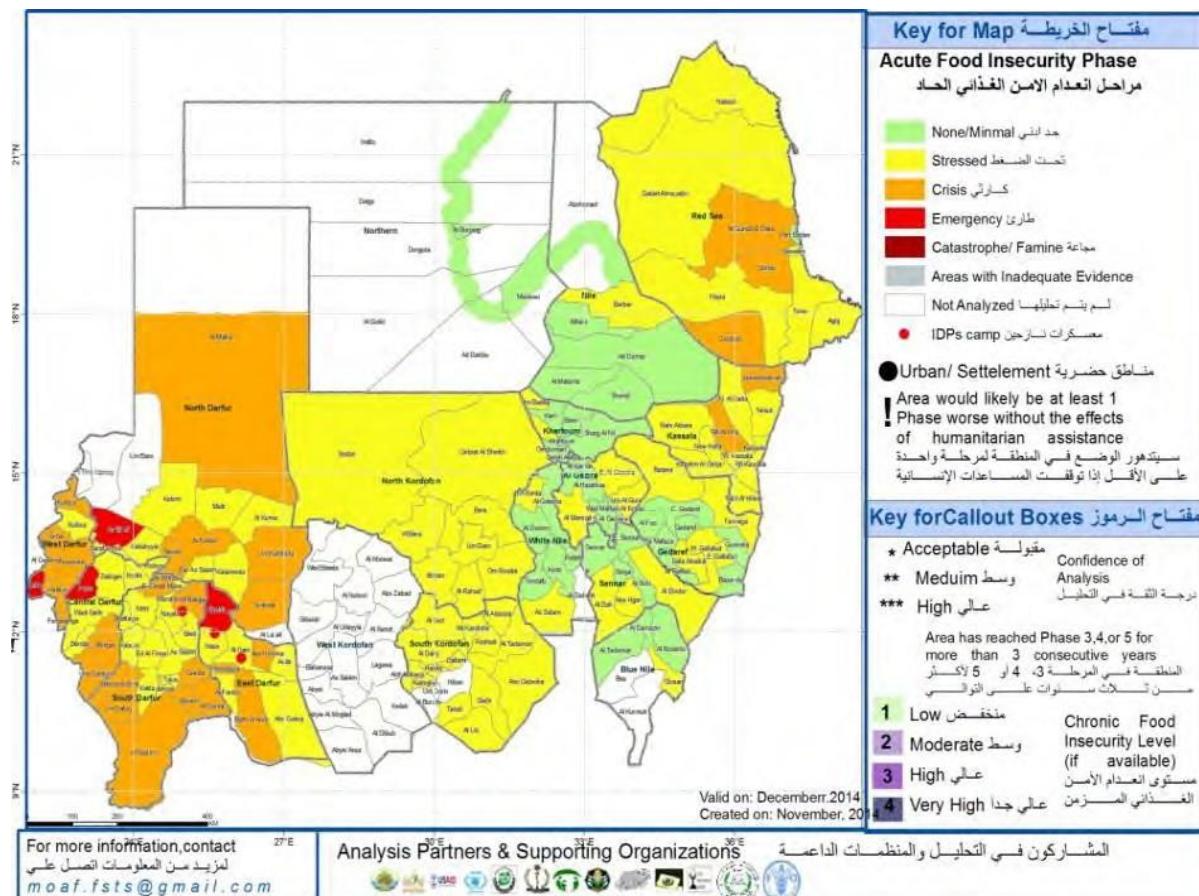
Soaring and volatile domestic and world food prices challenged the country’s capacity with high food import dependency, especially commodities such as wheat, sugar and dried milk. Sudan increased its imports of food by 16 percent between 2012 and 2013, from USD 2 049 million to USD 2 372 million⁴. Moreover, the high seasonal variability in Sudan’s own crop production continues to make the economy further vulnerable to food price increases and volatility.

² IFAD; Republic of Sudan – Country Strategic Opportunities Programme; 2013

³ I-PRSP; 2012. The poverty line is defined as “monthly total consumption below SDG 114 (calculated using 2 400 calories per person per day as the daily energy intake threshold)”

⁴ Bank of Sudan; 2014

Map 1. Sudan: Food Security Situation – IPC, November/December 2014



2.2 Sectoral Context⁵

Secession reduced Sudan's total land area by 25 percent and the area classified as "arid" increased from 65 to 90 percent. Even so, 75 percent of the former arable land (i.e. 73.5 million hectares) remains in the country, with just 16.8 million hectares cultivated. More critically, while the livestock population fell by only 28 percent to 105 million head, the range and forest resources on which they depend fell by 40 percent. Weaknesses in land tenure resulting from undefined land rights have, since traditional land rights were abolished in the 1970s, encouraged extensive and extractive modes of agriculture and livestock production, leading to overexploitation and degradation of natural resources, which has resulted in increased tensions and conflicts over natural resources, particularly between pastoral and settled farming communities.

Large-scale irrigation accounts for only nine percent of the cultivated land area but it receives the lion's share of public agricultural spending. The Government of Sudan's Agricultural Revival Programme (ARP), during the period 2008-2011, received 87 percent of all Agricultural Bank of Sudan lending.

The rainfed sector is typically divided into semi-mechanised farming, traditional crop production and livestock. In 2011, the rainfed subsectors contributed three-quarters of foreign exchange earnings from agricultural exports.

⁵ IFAD; Republic of Sudan – Country Strategic Opportunities Programme; 2013

Semi-mechanised rainfed farming is practiced by large farmers and companies with low rent leases granted by the federal government. It is characterised by cheap access to land allowing unlimited horizontal expansion and a low-input/low-output system with limited concern for sustainable land management. Investors plant according to market prices and availability of loans and subsidies. While providing employment, this form of farming encroaches on rangeland, and pastoralists find themselves excluded from traditional pastures and water sources, creating conflict over access. Semi-mechanised rainfed farming cultivates 14 million *feddans*, predominantly producing commercial sorghum grain for food security and sesame for export. The subsector produces 40 percent of the country's sorghum, 62 percent of sesame and 90 percent of sunflower and short-staple cotton grown in the country.

Traditional rainfed farming covers around ten million hectares and is practiced by family households with farms ranging from two to 50 hectares in size, farming for income and subsistence. Traditional rainfed farming covers about 18 million *feddans*, growing about 95 percent of the country's millet, 38 percent of sorghum, 67 percent of groundnut and 38 percent of sesame. The subsector also grows gum Arabic, rosella and melon seeds for export.

Productivity in rainfed cropping systems is declining due to land degradation, reduced soil fertility, traditional tillage practices, lack of seed quality control and lack of knowledge on improved management practices. Use of improved seeds, zero tillage and water harvesting in pilot projects have clearly demonstrated room for major improvements in crop yields. Other challenges facing rainfed crop production include unpredictability of rainfall that typically allows only 40 to 80 percent of the area planted to be harvested, as well as pests and diseases (including locusts). Although crop failure normally still implies fodder for livestock, there is an urgent need for households to diversify their sources of income and add value to what they produce. The lack of accessible rural financial services and appropriate extension are also major impediments.

Livestock production, an important component of the traditional rainfed sector, has consistently contributed the largest share of agricultural GDP (i.e. 56 percent of agricultural exports in terms of value in 2012). In addition to meat, milk and skins, livestock are valued for draught power and transport and as a mobile source of capital and insurance. In 2013, the livestock population of Sudan was estimated at 105 million head consisting of sheep – 40 million; goats – 30 million; cattle – 30 million; and camels – five million.

Livestock are raised mostly by nomadic or semi-nomadic pastoralists practicing transhumance within Sudan or crossing borders into neighbouring countries. In addition to the difficulties faced by livestock herders with regard to land tenure, the customary practice of allowing nomads to graze crop residues after the harvest has mostly disappeared and herders are expected to pay lease-holding tenants for grazing and access to water, especially in eastern Sudan. In general, livestock productivity is low – although information thereon is scattered and variable – due to disease and parasites, suboptimal breeding, poor herd management practices, reduced access to traditional range resources, stock routes, crop residues, insufficient water sources and overgrazing of remaining rangelands.

Official estimates show that, after the separation of South Sudan, **forestry production** contributes only one to two percent of national GDP but this is likely underestimated due to lack of data. Mismanagement of forest resources has led to desertification and destruction of watersheds, especially in central and northern Sudan. Expansion of agriculture into forestlands, tree felling for charcoal and firewood, overgrazing, forest fires, droughts and erratic rainfall are major factors. The main commercial forest product is gum Arabic that contributed eight percent to the value of agricultural exports in 2012. This followed many years of decline ended by the 2009 abolition of the state monopoly on sales and the deep sector reform enabled through the World Bank/International Fund for Agricultural Development (IFAD)-funded “Revitalizing the Sudan gum Arabic production and marketing project”.

Sudan has immense **fisheries resources**, especially the marine subsector along the Red Sea coast and within its inland waters along the Blue and White Nile Rivers, Lake Nubia and the dams of Roseires, Jebal Awlia, Khasm Elgirba and Marrewi. The secession of South Sudan (and loss of the White Nile/Sudd fish resources) significantly reduced the supply of freshwater fish to Sudan. Whilst techniques and vessels used in inland fisheries remain artisanal in nature, participants in the fisheries are becoming increasingly commercialized. As market forces continue to exert pressure, there is a pattern of exploitation likely to expand in the inland waters. Vessels operating in the Red Sea are larger, including motorized dhows and trawlers. Currently, most fish in the country is consumed fresh and there is no formal export of fish or fishery products. Sudan is, however, a significant importer of fish. The price of fish in Sudan is beyond the purchasing power of an average-income household. Most experience with aquaculture has been along the coast with pearl culture but, increasingly, investors are establishing catfish and tilapia pond farms in the irrigated areas of the country (e.g. Gezira and Gedaref States) to supply the developing population in these areas.

The forestry and fisheries subsectors are treated as marginal activities in Sudan. They receive more attention from international organizations from an environmental and climate-change perspective than from the Government as having good potential for economic recovery.

In terms of **gender**, women are generally the main unpaid contributors to household income and food production. Their participation in decision-making has been enhanced by the introduction of a quota for their representation in state legislatures, parties and community-based organizations (CBOs). IFAD's projects experience has shown that where women have access to capacity building and microfinance, they perform outstandingly. Women's empowerment is hindered by illiteracy, customary law, social pressures and heavy workloads.

In 2013, Sudan's export trade of USD 7 086 million was dominated by oil and gold (totaling 72 percent of the total revenues). Livestock and animal products (nine percent), sesame (seven percent), cotton (one percent) and gum Arabic (one percent) were also important export earners. The same year, a quarter of the country's imports, which had a total value of USD 9 918 million, comprised foodstuffs – 42 percent of which was wheat and wheat flour.

2.3 Hazards and Stresses to Crops, Livestock, Fisheries and Forestry Production

Sudan – particularly the country's traditional rainfed farming subsector – is prone to most of the risks, hazards and stresses known to mankind, including conflict and displacement, droughts, prolonged dry spells and erratic rainfall, floods, soaring food and agricultural input prices, transboundary plant and animal diseases and pests and wildfires, as well as conservative cultural practices, restricted access to land, water and pastures by smallholder farmers, agropastoralists and pastoralists and land degradation and desertification. Assessment of such multi-hazard risks and vulnerabilities (i.e. development of risk profiles for livelihood groups) is the foundation for the integration of resilience programming and preparedness at country level under CPFs and their PoAs. Key elements of a livelihood risk profile include: hazard identification and mapping (*what and where?*); seasonal calendars (*when?*); hazard impact on vulnerable groups (*who?*); coping capacity; and risk ranking (*prioritization?*).

The United States Agency for International Development (USAID) and World Food Programme (WFP)-supported Famine Early Warning Systems Network (FEWSNET) has categorized Sudan into 19 livelihood zones (13 of which are considered "smallholder rainfed farming" (i.e. *i to xiii below*), namely:

- i. Eastern pastoral (*Red Sea, River Nile, Kassala and Khartoum States*)
- ii. West and central pastoral (*North Darfur, Northern, North Kordofan and River Nile States*)
- iii. Eastern khors agropastoral (*Red Sea State*)
- iv. Eastern agropastoral sorghum (*Gezira, Gedaref and Kassala States*)
- v. Rainfed sorghum belt (*Central, East, South and West Darfur and South and West Kordofan States*)
- vi. Western agropastoral millet and groundnuts (*Central, East and South Darfur States*)

- vii. Western agropastoral millet (*North and West Darfur and North and West Kordofan States*)
- viii. Central rainfed millet and sesame (*North Kordofan and White Nile States*)
- ix. Jebel Marra mixed highland cultivation (*Central Darfur State*)
- x. Western wadi cultivation (*Central, North and South Darfur States*)
- xi. North Darfur tobacco (*North Darfur State*)
- xii. North Kordofan gum Arabic belt (*North Darfur and North, South and West Kordofan States*)
- xiii. Cattle dominant agropastoral (*East Darfur and South and West Kordofan States*)
- xiv. Southeast rainfed semi-mechanised agriculture (*South Kordofan, White Nile, Sennar, Gedaref and Blue Nile States*)
- xv. Flood retreat cultivation (*Red Sea State*)
- xvi. Northern riverine small-scale cultivation (*Northern, River Nile and Kassala States*)
- xvii. Southern riverine small/medium-scale cultivation (*Khartoum, Gezira, Gedaref, Sennar, Blue Nile, White Nile and Kassala States*)
- xviii. Central irrigation schemes (*Gezira and Gedaref States*)
- xix. Coastal fishing (*Red Sea State*)

In 2014, FAO prepared risk profiles for those livelihood zones covering the traditional rainfed farming areas of the country, namely: Darfur Region (*i.e. Central, East, North, South and West Darfur States*); Southern Region (*i.e. South and West Kordofan, White Nile and Blue Nile States*); and Eastern Region (*i.e. Gedaref, Kassala and Red Sea States*)⁶. Results of this assessment are shown in Table 1.

⁶ FAO Sudan; “Resilience Country Support Process” workshop; Khartoum, September 2014

Table 1. Livelihood Risk Profiles across Traditional Rainfed Farming Areas of Sudan

Hazard and Stress	State	Time of Year	Frequency of Occurrence	Livelihood Group Affected	Subsector Assets Affected	Scale of Impact
Darfur Region						
Drought	North Darfur	Dry and rainy season	Every 2-3 years	Farmers, pastoralists and agropastoralists	Livestock and crops; forests/rangelands and pastures	High
Floods	Central, North, South and West Darfur	Rainy season	Every year	Farmers and agropastoralists	Livestock and crops; wadi cultivation and pastures	High
Conflict (IDPs, etc.)	Central, East, North, South and West Darfur	All year	Every year	Farmers, pastoralists and agropastoralists; and service providers and traders	Livestock and crops; and land, infrastructure and social issues	High
Crop pests and diseases	Central, East, North, South and West Darfur	Rainy/cropping season	Every year	Farmers and agropastoralists	Crops; wadi cultivation and pastures	High
Animal diseases	Central, East, North, South and West Darfur	All year	Every year	Pastoralists and agropastoralists (and women)	Livestock, animal services and trading and nutrition	High
Wild fires	All Darfur States	September - February	Every 2-3 years	Pastoralists and agropastoralists	Livestock and forests/rangelands	Medium
Soaring food prices	All Darfur states	All year	Every 2 years	All livelihood groups	Crops, livestock and nutrition	Medium
Land degradation	All Darfur States	All year (overgrazing)	Increasing	All livelihood groups	Land, crops, livestock and trees	High
Access to land and water	All Darfur States	All year	Every year	Pastoralists, agropastoralists and smallholder farmers	Crops and livestock	Medium
Eastern Region						
Drought	Kassala and Red Sea	Dry and rainy season	Every 2-3 years	Pastoralists, agropastoralists and farmers	Crops, livestock and land	High
Floods	Gedaref, Kassala and Red Sea	Rainy season	Every 2-3 years	Irrigated and rainfed farmers	Crops, land, tools and infrastructure	High
Soaring food prices	Gedaref, Kassala and Red Sea	All year	Every year	All livelihood groups	Crops, livestock and nutrition	High
Conflict (IDPs, etc.)	Gedaref and Kassala	All year	Every year	Agropastoralists and farmers	Land and social issues	Medium
Animal diseases	Gedaref, Kassala and Red Sea	All year	Every year	Pastoralists and agropastoralists (and women)	Livestock and nutrition	Medium
Sandstorms	Kassala and Red Sea	Dry season	Once per year	Pastoralists, agropastoralists and farmers	Land and infrastructure	Medium
Crop pests and diseases	Gedaref, Kassala and Red Sea	Cropping season	Once per year	Mechanised and irrigated farming	Crops	Low
Cultural practices	Kassala and Red Sea	All year	Every year	All livelihood groups (women)	Horticulture, small live-stock, fisheries and nutrition	High
Land degradation	Kassala and Red Sea	All year (overgrazing)	Increasing	All livelihood groups	Land, crops, livestock and trees	High
Access to land and water	Kassala and Red Sea	All year	Every year	Pastoralists, agropastoralists and smallholder farmers	Crops and livestock	Medium

Hazard and Stress	State	Time of Year	Frequency of Occurrence	Livelihood Group Affected	Subsector Assets Affected	Scale of Impact
Southern Region						
Conflict (IDPs etc.)	Blue Nile and South Kordofan	All year	2-5 times/year	All livelihood groups	Crops, livestock and infrastructure	High
Erratic rainfall	Blue Nile, White Nile and South and West Kordofan	Annually	Yearly in Blue Nile; 1-2 years in South and West Kordofan	Pastoralists, agropastoralists and farmers	Crops and livestock	High
Floods	Blue Nile and South and West Kordofan	Rainy season	Yearly in Blue Nile; and every 2 years in South and West Kordofan	Pastoralists, agropastoralists and farmers	Crops, livestock, tools and infrastructure	High
Wild fires	South and West Kordofan	November - February	Once per year	Pastoralists, agropastoralists and farmers	Crops, livestock, tools and environment	High
Soaring food prices	Blue Nile, White Nile and South and West Kordofan	May - October	Every year	All livelihood groups	Crops, livestock and nutrition	Medium
Animal diseases	Blue Nile, White Nile and South and West Kordofan	All year	Every year	Pastoralists and agropastoralists (and women)	Livestock and nutrition	Medium
Crop pests and diseases	Blue Nile and South and West Kordofan	Cropping season	Once per year	Farmers and agropastoralists	Crops	Medium
Land degradation	South and West Kordofan	All year (overgrazing)	Increasing	All livelihood groups	Land, crops, livestock and trees	High
Access to land and water	Blue Nile, White Nile and South and West Kordofan	All year	Every year	Pastoralists, agropastoralists and smallholder farmers	Crops and livestock	Medium

2.4 Status of the Agriculture Sector

2.4.1 Current Strengths and Weaknesses

In 2007, the Government of Sudan, as part of its preparation of ARP, undertook a diagnosis of the agriculture sector by using a strengths, weaknesses, opportunities and threats (SWOT) analysis. This approach explored the weaknesses and strengths in the performance of the sector, opportunities for development and the threats involved. Given the secession of South Sudan, the loss of oil revenues and subsequent downturn in the country's economy since 2011, an updated version of this diagnosis could be interpreted as presented below.

The **strengths of the Sudanese agriculture sector** have remained largely unchanged since 2007, with the exception that institutional capacities have become so outdated that they might be lost for future development initiatives.

Current Strengths
✓ <u>Vast agricultural lands</u> suitable for cultivation.
✓ <u>Water resources</u> from rainfall, rivers and underground aquifers sufficient to meet the requirements of raising different food and industrial crops, the livestock population, fish resources and increasing the areas under forests and pasture.
✓ <u>Huge livestock resource</u> potential and sizable fish resources.
✓ <u>A network of agricultural faculties</u> located all over the country to provide trained manpower in all areas of specialization required for agricultural development.
✓ <u>Generations of trained manpower</u> capable of leading the process of agricultural development.
✓ <u>Adoption of a federal system of government</u> that encourages the participation of local authorities and rural communities in national development programmes.
✓ <u>Planned improvements of infrastructure</u> such as roads, electricity, communication technologies, silos, quarantine facilities and abattoirs initiated that should help promote free-market mechanisms and send signals to producers to increase productivity and production coming to the markets.
✓ <u>A strategic geographical location</u> which facilitates the marketing of agricultural commodities in regional and international markets (e.g. Near Eastern, eastern and North African countries).
✓ <u>Commitment and a political will</u> for equitable and sustainable socio-economic development.

On the whole, **the weaknesses of the sector (and opportunities for change)** have remained unchanged since 2007 – if anything, they have worsened given the recent decline of the Sudanese economy. However, changes in agricultural policy (e.g. ARP-II) – as part of the Second Five-Year Development Plan (2012-2016) and Three-Year Economic Salvation Programme (2012-2014) – and recent revisions to regulatory frameworks on gum Arabic and seed production, establishment of producer organizations and food security policy (Chapter 3) have meant that certain institutional obstacles have been softened (but further capacity development is required before they can be removed).

Current Weaknesses (opportunities for change)
○ <u>Fragile state of the national economy</u> and high inflation precludes both public and private sector investment in rural areas and the agriculture sector.
○ <u>Low levels of productivity to all factors of crop, livestock, fisheries and forestry production</u> – producers are trapped in traditional systems of production resulting in underdevelopment and weak technical, managerial and financial capacities of the producers; and outdated systems of production in the agriculture sector due to absence of a holistic vision for agricultural development.

<ul style="list-style-type: none"> ○ <u>Weak research and extension services</u> and shortage of improved seeds, with a lack of application of recommended research findings.
<ul style="list-style-type: none"> ○ <u>The existing infrastructure</u> is not commensurate with the requirements of modern agricultural development – lack of public and private sector investment.
<ul style="list-style-type: none"> ○ <u>Lack of coordination of policies</u> between the various natural resource users, i.e. representatives of large and small-scale farmers, pastoralists and agropastoralists, fisherfolk, forest-dependent people and women.
<ul style="list-style-type: none"> ○ <u>The preparation of agricultural plans</u> lack the scientific and operational approaches, e.g. projections of production and exports lack precision and are often exaggerated.
<ul style="list-style-type: none"> ○ <u>Lack of capacity</u> to produce agricultural equipment and inputs locally.
<ul style="list-style-type: none"> ○ <u>Inadequacy of procedures</u> that control the quality of products, and sanitary and phytosanitary (SPS) measures which safeguard food safety.
<ul style="list-style-type: none"> ○ <u>Lack of strict measures to apply regional and international agreements</u> on enforcement of standards and related capacity building – that jeopardizes the competitiveness of Sudanese products in local and international markets.
<ul style="list-style-type: none"> ○ <u>Weak linkages between stakeholders</u> deprive local communities (and their small-scale producers) of the opportunity to participate in policy making and to reap the benefits of a balanced rural development.
<ul style="list-style-type: none"> ○ <u>Deep-rooted rivalries</u> between professional and trade union organizations hampered the cooperation needed for optional use of agricultural resources.
<ul style="list-style-type: none"> ○ <u>Tenuous peace and insecurity</u>, especially in areas of the country with high potential for agricultural production

2.4.2 Potential Opportunities and Threats

The **potential opportunities of the Sudanese agriculture sector** have remained unchanged since 2007, but recent liberalization of some agricultural commodities; increasing income creation opportunities for smallholders through the recognition of farmer field schools (FFSs); community animal resource development services and producer organizations; and improving food and nutrition security information flows, knowledge management and policy development have enhanced many of the opportunities listed below.

Potential Opportunities
✓ <u>The realization of peace and security</u> (and their economic benefits) will encourage settlement in the rural areas and avail resources for the development of the rural sector.
✓ <u>The possibility of increased oil and gold production</u> and revenue provides an important source of financing rural infrastructure and agricultural equipment and inputs.
✓ <u>The change towards an open economy</u> creates a conducive environment for entering into partnership with national and international investors and entrepreneurs, including public-private partnerships (PPPs).
✓ <u>Public awareness</u> of the fact that agriculture is the main source of rapid and balanced economic growth has increased.
✓ <u>Potential for utilizing Sudan's share of River Nile waters</u> efficiently and effectively.
✓ <u>Application of small and large-scale water harvesting technologies</u> on a large geographical scale.
✓ <u>Utilization of forward and backward linkages</u> between agriculture and industry through value chain development and PPPs.
✓ <u>The strategic location of Sudan</u> in North and East Africa and the Arab World and its proximity to Europe makes it a potential centre for agricultural trade.

Potential threats to the sector have worsened since 2007, in particular levels of insecurity and conflict, land degradation and desertification and the frequency of extreme weather events in the country have increased.

Potential Threats
○ <u>Rapid population growth</u> – puts upward pressure on consumption of water and agriculture products.
○ <u>Escalation of political and tribal conflicts</u> into more peaceful and stable areas of Sudan will curtail any recent initiatives in agricultural and rural development.
○ <u>The continuation of deterioration of the country's rural resource base</u> has a negative impact on the settlement of livestock producers and the development of the national herd. It is also associated with insecurity and tribal conflicts over resources, which could escalate as the situation worsens.
○ <u>85 percent of animal resources depends on pastoral and transhumant systems of production</u> , which render the provision of services and the transfer of technology needed for improvement difficult.
○ <u>The increasing risk of transboundary plant and animal pests and diseases</u> limit the development of high-value food chains in the country.
○ <u>Climatic change and variability</u> resulting in reduced production and fluctuations in productivity (Section 2.5).
○ Despite more favourable agriculture policies, <u>the institutions and procedures which control public funds are not suitable for financing agricultural producers</u> , especially smallholders (including suboptimal legislation and credit), nor is it appropriate for financing community infrastructure.
○ <u>Trade barriers</u> established by developed countries to protect their producers limit access for Sudanese exporters to their markets.

2.5 Climate Change

A recent “environmental and climate change assessment” undertaken by IFAD⁷ analysed historical temperature and rainfall patterns, modelled estimated future projections of precipitation and rainfall as well as future runoff of the Nile flows until 2050. The assessment indicates that climate change is already leading to more severe and chronic droughts and threatening all rainfed agricultural systems.

Increased temperatures and declining rainfall have shifted the boundary between desert and semi-desert zones southwards by between 50 and 200 km over the past 80 years. This trend is continuing and large areas of the remaining semi-desert and low rainfall savannah – key livestock production zones – are at risk of desertification. By 2050, vulnerability assessments show that temperatures are likely to rise by between 1.5 and 2.5°C throughout the country (1.6°C in Atbara; 2.1°C in Khartoum; 0.6°C in El Obied; 1.5°C in El Fasher and Gedaref; 2.0°C in Kassala; 0.8°C in Damazene; and 1.3°C in Malakal). Average annual rainfall is expected to increase in most areas but with significant changes in its seasonality and more frequent droughts. The highest annual reductions are predicted for Gedaref and Kassala States; while the highest seasonal variability is predicted to be in Northern, North Darfur, River Nile and Red Sea States. Increased temperatures and higher rates of evapotranspiration will increase water demand for agriculture significantly; and accordingly, the potential for moisture stress in crops and animals will increase. Rainfed cropping areas will shrink, and the impact of droughts will be increased.

Agricultural yields are expected to fluctuate more widely over time and to converge to a significantly lower longer-term average. This will vary across crops and agro-ecological zones, but impacts will be most significant in rainfed areas. Declines in yields could range from between five and 50 percent, or

⁷ IFAD; Republic of Sudan – Environmental and Climate Change Assessment; 2013

between 15 and 25 percent in terms of value of agricultural output by 2050, reducing GDP by between USD 7 billion and USD 14 billion. Declines in yields could be up to 56 percent by 2050, the steepest decline in the world⁸. Vulnerability to climate change is strongly correlated with dependency on non-irrigated agriculture and livestock, coping capacity (i.e. “household wealth”) and household food security (i.e. “food consumption”): One hundred percent of poor households and 25 percent of borderline households are considered vulnerable to drought. The issues outlined above related to land tenure are compounding vulnerability to climate change.

2.6 Humanitarian Context

Sudan has been experiencing a protracted crisis in various guises and different locations since 1984. At present, conflict and displacement is concentrated in the five states of the Darfur Region and North, South and West Kordofan; Blue Nile; Kassala; and Red Sea States. Over the past four decades, the situation has been exacerbated by occasional droughts, floods, outbreaks of plant and animal pests and diseases and soaring food and agricultural input prices, which are now increasing in frequency.

The United Nations Humanitarian Coordination Team for Sudan has recently completed the Humanitarian Needs Overview (HNO) for the Sudan 2015 Strategic Response Plan (SRP)⁹ (Section 3.10.2). Overall, HNO and SRP (currently under finalization) proposes to target some 5.4 million people in need of humanitarian assistance, including life-saving interventions, protection from conflict and violence, strengthening household and community coping mechanisms and, where conditions permit, supporting longer-term solutions to the plight of IDPs and refugees. This represents over 20 percent of the country’s total population and an increase of seven percent over the 6.9 million people in need in 2014.

The 2015 Sudan SRP caseload includes the following humanitarian categories:

- 5.3 million food insecure people;
- 3.1 million displaced people;
- 171 000 IDP returnees;
- 155 000 refugees and asylum seekers;
- 91 000 refugee returnees;
- 550 000 South Sudanese refugees; and
- 1.6 million non-displaced but livelihoods insecure.

The HRP 2015 targets 5.4 million, of which 80 percent (4.2 million) are food insecure. Under the HRP 2015, FAO pledges for USD 24 million to save lives and restore livelihoods of more than 50 percent (2.4 million people) of the most food insecure.

⁸ The World Bank; Climate Change and Development – The World Development Report, 2010

⁹ Formerly known as the “Consolidated Appeal Process (CAP)”

3. AGRICULTURAL POLICY, STRATEGY AND INSTITUTIONAL CONTEXT OF SUDAN



3. AGRICULTURAL POLICY, STRATEGY AND INSTITUTIONAL CONTEXT OF SUDAN

3.1 National Institutional Setting

Sudan has a federal system of Government of 18 states, with significant levels of autonomy over legislation, budget execution, development programming and service delivery. For food and agricultural matters, the Federal MoAI, MoLFR and MoEFPD – FAO's apex partner institutions – retain certain powers over land tenure, water management, environmental conservation, pest and disease surveillance and control, input supply and trade. Each state has its own ministry of agriculture, which is FAO's local partner institution, usually responsible for the crops, small-scale irrigation, livestock and fisheries subsectors.

Main institutional weaknesses relate to budget formulation and allocation, staffing, lack of attention to rainfed agriculture and variation in the transfer and disbursement of federal funds. Difficulties in expanding the local revenue base adversely affect state counterpart funding. In addition, there is a lack of clarity on the roles in dealing with agriculture and natural resources and political support varies across states. Mechanisms for harmonizing and streamlining policies and strategies across the states are absent. Policies have historically been top-down and marked by frequent changes, inadequate enabling environment and insufficient resources for implementation. Smallholder farmers and pastoralists and their representatives do not usually participate in policy-making processes. Cross-cutting issues in the rural sector, such as focus on gender, youth and climate change are mainstreamed in the main government policies. Policy environment is also constraining for the private sector as access to finance is constrained, taxation is excessive, charges are not related to service provision, there is more than one exchange rate, export/import controls exist and access to land is problematic. However, in the agriculture sector, the Government is keen to boost private investments and increase exports.

Most of Sudan's strategies and plans incorporate poverty reduction targets. The Sudan long-term “Quarter Centennial Strategy” (2007-2031), has strong commitments to the Millennium Development Goals (MDGs), including increasing agricultural incomes and employment, promoting food security and poverty reduction, increasing agricultural exports and strengthening linkage with other sectors. The second Five-Year Development Plan (2012-2016) and its Three-Year Economic Salvation Programme aim to provide a foundation for the Interim Poverty Reduction Strategy Paper (I-PRSP) and ARP.

3.2 Interim Poverty Reduction Strategy Papers I and II (2011-2016)

The I-PRSP was approved by the Parliament in June 2012 and the World Bank in March 2013. The “full” PRSP is currently under preparation, under the guidance of the African Development Bank (AfDB). The I-PRSP has four pillars: (i) strengthening governance and institutional capacity of the public sector; (ii) reintegrating IDPs and other displaced populations; (iii) developing human resources; and (iv) promoting economic growth and employment creation. The targets set for the MDGs under the I-PRSP are very ambitious, and poverty is expected to decrease from 46.5 percent (2006 estimate) to 23.3 percent by 2015. Reducing poverty by 50 percent is probably unlikely, given the current indications of rising poverty.

The I-PRSP is built on a medium-term macro-economic framework that encapsulates those growth and poverty reduction policies. The macro-economic objectives for the 2013-2015 period set in I-IPRSP aim at: (i) sustaining an average growth rate of about four percent; (ii) bringing down inflation to ten percent; (iii) reducing the overall budget deficit to three percent; and (iv) containing the current account deficit to 3.1 percent of the GDP.

3.3 Second Five-Year Development Plan (2012-2016)

The Second Five-Year Development Plan is a post-comprehensive peace action plan, following the secession of South Sudan in 2011, that extends the national planning process until 2016, a year later than the MDGs and at the same time as the UNDAF cycle. The plan is arranged into four sectors: namely: (i) economic; (ii) political governance and management; (iii) socio-cultural issues; and (iv) corporate governance and capacity building.

The Plan targets economic stability and growth with a primary focus on sustainable development and poverty reduction in the medium term, identifying major programmes and projects in nine areas: namely: (i) heeding the financial shock in the first three years in order to create economic stability (including a three-year austerity programme (2012-2014); (ii) improve on agricultural production to meet local needs and to supplement the loss of oil revenue through export (Sudan lost 43 percent of its export revenue as 75 percent of oil produced became the property of the new South State); (iii) industrial development and expansion; (iv) meeting the MDGs; (v) reforming the civil service and public administration; (vi) improving the local and federal administrative system; (vii) improving general and higher education to meet the needs and demands of the market; (viii) seeking strategic investment and partnerships; and (ix) enhancing the private sector's role in leading development.

3.4 Three-Year Economic Salvation Programme (2012-2014)

The Three-Year Economic Salvation Programme aimed at restructuring the general budget and rectifying the overall deficit of the budget and its expected effect on the socio-economic situation that evolved due to the secession of South Sudan. The objectives of the Programme are to: (i) increase tax collection effort and rationalize current spending and development spending; (ii) mobilize and tap productive sectors capacities to bridge the gap in major basic commodities; (iii) activate human resources and reduce unemployment rate; and (iv) increase foreign private sector investments rate of inflows.

Policies required include: (i) activation of self-sufficiency policies in basic crops through ARP; (ii) redirection of emphasis from the construction sector to mineral mining, especially gold, to cover deficits in foreign currency revenues; (iii) design programmes that re-operate idle factories to contribute effectively to the national GDP; (iv) issue incentive package policies for nonpetroleum exports, e.g. gold, livestock, oilseeds and fodder crops; (v) encourage import-substitute commodities, e.g. wheat and sugar; and (vi) organize transboundary trade with neighbouring countries.

3.5 Agricultural Revival Programmes (2008-2014)

Building on the "Green Mobilization" programme of 2006 and the first Five-Year Development Plan (2007-2011), the Government of Sudan adopted a five-year **ARP-I** in 2008 that advocated agriculture as the engine to effectively contribute to economic growth and export performance and to simultaneously advance people's livelihoods, reduce poverty, improve food security and nutrition and develop and protect natural resources. The ARP had six strategic objectives: (i) promoting exports of crops and livestock to reduce dependence on oil; (ii) increasing productivity and efficiency at the production and processing stages (in particular wheat, rice, sugar beet, sugarcane, oil seeds, organic fruits and vegetables and green and dry fodder, each in selected states); (iii) achieving food security; (iv) reducing poverty by 50 percent by 2015, generating job opportunities and increasing per capita income; (v) achieving balanced growth in all regions of the country; and (vi) developing and protecting natural resources to ensure renewal and sustainability.

ARP-I focused on the development of the traditional agriculture sector, including the introduction of strategies for strengthening CBOs, making the village as a centre of development, and emphasised water harvesting and technology development and technology transfer programmes. Despite this focus, the traditional rainfed agriculture and livestock subsectors received low priority in public spending allocated to agriculture and food security – in favour of rehabilitating and developing the

irrigated subsector. The Programme also planned for empowering the role of the private sector in agriculture through: (a) removal of administrative and financial bureaucracy; (b) resolving land ownership, land-use problems and conflicts over land acquisition; (c) privatization of government schemes; and (d) promotion of agricultural insurance and risk management schemes.

An independent evaluation in 2011 concluded that ARP-I had fulfilled its funding commitments despite budgetary constraints, and had substantial achievements, albeit not meeting desired outcomes. As a result, it was extended a further three years (i.e. ARP-II) with an increased role for state governments in guiding planning and mobilizing support.

ARP-II (2012-2014) therefore continues the policies of ARP-I, but expects that the Government commits to the fulfilment of the Maputo Declaration by the African Union Heads of States for allocating ten percent of the national budget to the agriculture sector and honours the CAADP's target of achieving at least a six percent rate in agricultural growth. In this context, **nine mission measures** of ARP-II can be summarized as follows:

1. Adopting conducive macro- and sectoral policies that promote investment, develop infrastructure for water provision (in particular water-harvesting schemes), build feeder roads, establish livestock routes and provide marketing infrastructure.
2. Building productive capacity of producers through institutional reform and training (in line with recent legislation on “producer organizations” [Section 3.9]) – in order to enhance the efficiency of farmers and pastoralist organizations as a basis of self-initiatives in supporting governance activities.
3. Addressing land tenure and land rights problems.
4. Improving agricultural support services in terms of research, technology transfer and extension, agricultural education, markets, information and communication, and agricultural insurance services.
5. Improving system efficiency by increased farm intensities, marketing efficiency and value addition through processing – in order to create jobs in rural areas for poverty reduction, induce settlement in the countryside and reduce urbanization rates (which have increased tremendously over the last two decades).
6. Protecting and developing natural resources by increasing land cover – in particular the expansion of reforestation schemes, rehabilitation of forests and conservation for enhanced environmental sustainability.
7. Building agricultural input industries with links to the production-processing-marketing chain.
8. Implementing product quality control and safety measures.
9. Building strategic partnerships to utilize economies of scale and have better access to new technology, international markets and financial institutions.

3.6 Comprehensive Africa Agriculture Development Programme in Sudan¹⁰

The **CAADP** is endorsed by African governments under the African Union’s New Partnership for Africa’s Development (NEPAD) initiative to accelerate growth, eliminate poverty and hunger and promote agricultural exports in Africa. CAADP comprises **four agricultural pillars**, namely:

- I. Expand sustainable land management and reliable water control system.
- II. Improve rural infrastructure and trade-related capacities for more market access.
- III. Increase food supply, reduce hunger and improve food emergency in case of crises.
- IV. Improve agricultural research, technology transfer and adoption.

¹⁰ The “Sudan CAADP Compact”, signed by the representatives of the Ministries of Agriculture and Irrigation and of Finance and National Economy, African Union Commission, COMESA, NEPAD, FAO, Sudan Council of Voluntary Agencies, General Farmers’ Union, General Pastoralists’ Union and the Sudan Business and Employers Federation in July 2013

The pillars are supported by academic and professional training in agriculture, and supply of knowledge systems, peer review and policy dialogue within the Sudanese context.

The CAADP's framework is implemented through a future vision and action plan with main priority areas for public sector investment, which have guided countries such as Sudan (e.g. ARP-II) that include: (1) creation of appropriate atmosphere for sustainable development of agricultural production; (2) capacity building of producers and institutions; (3) addressing agricultural land issues; (4) developing support services; (5) development and modernization of agricultural system; (6) protection and development of natural resources; (7) development of agro-industries (8) implementation of quality control and safety measures; and (9) establishment of international partnerships.

3.7 IGAD's Initiative to End Drought Emergencies in the Horn of Africa – Sudan Country Programming Paper

In 2012, the Governments of Djibouti, Ethiopia, Eritrea, Somalia and Sudan, with support of an FAO/ Consultative Group for International Agricultural Research (CGIAR) technical consortium (coordinated by the International Livestock Research Institute), undertook a detailed analysis of key priorities for addressing food insecurity in the Horn of Africa and national priorities of the respective country agriculture sectors within the framework of CAADP. This Intergovernmental Authority on Development (IGAD)¹¹ Drought Disaster Resilience and Sustainability Initiative (IDDRSI) led to the preparation of a Common Programming Framework at regional and country levels, titled “IGAD’s Initiatives to End Drought Emergencies in the Horn of Africa”.

In Sudan, drought-prone areas cover a third of the country’s landmass but nearly 90 percent of its productive area (crops, pastures and forests)¹² across 15 of 19 livelihood zones¹³ (i.e. rainfed cultivated, agropastoral, pastoral and tree-dependent based) and parts of all 18 states. Drought effects are more widespread in western parts, moderate in eastern and southern parts and lesser in central parts.

Preparation of the Sudan “Country Programming Paper (CPP)” in 2014 represented a detailed assessment on the status of the nation’s agriculture sector with recommendations for a total of 21 outcomes/components comprising 72 priority interventions in livelihood resilience and economic recovery of the “drylands” and drought-prone areas. The priority interventions proposed by CPP (Annex 1) include investment in both physical infrastructure (e.g. feeder roads, irrigation systems, quarantine stations and food processing units)¹⁴ and capacity development of government agencies, non-state actors and men and women farmers, pastoralists, fisherfolk and tree-dependent families (e.g. livelihood support, research and knowledge management, and advisory and extension systems). The capacity development interventions proposed by CPP are therefore highly relevant to the preparation of the CPF/PoA.

The programme objective of CPP is similar to that of the proposed PoA, i.e. ***“to improve livelihoods and increase resilience capacities of the different economic sectors of the drought-prone communities in the rainfed and irrigated areas of the country”*** (except that PoA covers all hazard zones and not specifically drought-prone areas). The specific objectives of CPP are ***“to enhance livelihood capacities, strengthen resilience and emergency preparedness through:***

¹¹ IGAD is an eight-country trade bloc in eastern Africa that includes the Governments of Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda, with headquarters in Djibouti City

¹² Remote Sensing and Seismology Authority, National Centre for Research, Ministry of Science and Technology (2013)

¹³ Famine Early Warning Systems Network (FEWSNET; 2014)

¹⁴ To be included under the National Agriculture Investment Plan, currently under preparation with support of FAO

- rehabilitation and development of the water and arable land resources network in the drought-prone regions of the country to increase water availability for domestic, livestock, agriculture and energy use; and enhance regional cooperation and coordination of ownership on transboundary water resources;
- development of livestock infrastructure to improve productivity, access to markets and the livestock export routes to the Middle East and livestock health management;
- rehabilitation and development of rangelands and forests to enhance availability of forage in a sustainably managed environment, using PPP and community participation approaches for enhanced contribution to peacebuilding and conflict resolution to reduce natural resources-based conflicts that hamper livestock production; and
- capacity building for individuals and institutions dealing with water resources and livestock value chain development, and the review of associated policies. The capacity building effort will also target legal and institutional frameworks so as to improve land tenure issues, water use and livestock production systems”.

MoAI and MoLFR acknowledge CPP as the most important agricultural policy document prepared in recent times. And, both ministries are now basing their future programming (including ARP-III) on the strategic framework of CPP; hence, the prominence given to CPP in this PoA (Annex 1). However, the CPP tends to focus on natural resource management and development of pastoralist and agropastoralist farming systems and less on rainfed and irrigated cropping systems. In this regard, further attention is required, for example, to agricultural research and development for climate change adaptation (CCA), quality seed systems, post-harvest management and technology transfer and extension services.

3.8 Darfur Development Strategy (2013-2019)

The 2011 “Doha Document for Peace in Darfur (DDPD)” paved the way for the Government of Sudan and the United Nations to prepare a six-year development strategy for the Darfur Region¹⁵ in early 2013. The “**Developing Darfur: A Reconstruction and Recovery Strategy (DDS)**” aims “*at realizing short-term and medium-term objectives in the fields of rehabilitation, reconstruction, construction and development, taking into consideration urgent needs and the need to work out the basis for long-term development – giving special attention to programmes and projects which will enable Darfur to speed up the transition from relief to development*”. The DDS is based on situation analyses undertaken by ten thematic working groups as part of the Darfur Joint Assessment Mission (DJAM) in late 2012 – including “agriculture, livestock and rural livelihoods”¹⁶.

The DDS recognizes the shortfalls inherent within a project-based and sector-specific “wish-list” and instead presents an integrated, comprehensive and stakeholder-driven roadmap to holistically initiate the ambitious objective outlined by DDPD – namely a stable, peaceful and prosperous Darfur. The independent bricks of the thematic working groups lend themselves conceptually to the formation of **three main pillars** necessary to support the region-wide DDS. All aspects of recovery under DDS will not be ad hoc given that there are elements of all these that need to be developed as an integrated programme in a time-conscious manner, including: (i) peace and stability (e.g. land and community reconciliation and reintegration); (ii) governance and rule of law (e.g. for long-term service delivery); (iii) private sector development (i.e. to ensure consistent economic recovery); (iv) basic public services (e.g. capacity development to maintain community reconstruction); (v) development of rural livelihoods (e.g. agricultural markets and livestock improvement); and (vi) return and reintegration (e.g. for the stabilization of the rural sector).

¹⁵ United Nations and Darfur Regional Authority; Developing Darfur: A Reconstruction and Recovery Strategy, 2013 to 2019; 2013

¹⁶ Darfur Joint Assessment Mission/Thematic Working Group of Agriculture, Livestock and Rural Livelihoods of WFP and FAO; Situation Analysis – Agriculture, Livestock and Rural Livelihoods in the Greater Darfur Region; 2012

The three interconnected pillars of DDS and their overall aims are as follows:

- I. **Governance, Justice and Reconciliation** – to contribute policy support, technical assistance and capacity enhancement to State governments to enable them to more effectively execute their mandates, especially at the local (decentralized) level and thus oversee recovery of the region and initiate the revival of basic infrastructure and support to conflict-affected populations (*including public delivery services, land use and land development*).
- II. **Reconstruction** – to support the recovery and stabilization of war-affected populations, whose economic and social lives have been severely disrupted; fundamental to any recovery programme is the construction and restoration of physical infrastructure and basic service recovery, such as water supplies in villages, schools, health posts and community policing, as well as linking communities and markets by constructing and improving vital road, rail and air links, promoting resource-efficient housing and restoring productive systems (*including feeder roads, water points and food nutrition*).
- III. **Economic Recovery** – to contribute positively towards poverty alleviation and transitioning the Darfur Region to development in an equitable and environmentally sustainable manner through directly supporting agricultural operations, demarcating stock routes, promoting alternative energy sources, improving the business climate and access to credit, etc., *including agricultural policy, extension services, veterinary services, crop and livestock production (and irrigation and pasture development), crop and livestock value chain development and natural resource management (NRM)*. FAO is co-chairing this pillar with DRA.

Further details on the agriculture-related objectives and key outputs of DDS pillars are provided in Annex 2. The DDS also includes a listing of priority “**foundational and short-term activities**” for each of the three pillars. Short-term agriculture-related activities, where FAO has been recommended as the lead or support United Nations agency, have been estimated at a total cost of USD 25 million (*including: establishment of public delivery systems and [land] conflict management processes; feasibility studies for produce marketing, rehabilitation of water supplies, and food nutrition assessment and training; and agricultural policy development, strengthening agricultural support services, pest and disease surveillance, value chain analyses and initiation of value chain development, NRM assessments, feasibility studies for water harvesting systems, restoration of shelter belts, initiation of community-based range management, and improvement of alternative energy sources*)¹⁷.

Many of the themes, key outputs and activities proposed for Pillar III were based on a strategic framework for “natural resources management for food and nutrition security in Darfur” prepared by FAO in January 2012. This strategic framework now gives direction to FAO’s future relief, recovery and development work in the region, in particular on the intersection between natural resources and sustainable crop and livestock production systems dimension of these resources (Section 4.1.4).

3.9 Recent Legislation

Despite the slower than expected progress, a number of pro-poor acts and regulations have benefitted the agriculture sector, namely:

- The Gum Arabic Act of 2009 liberalized trade and has had a major impact on improving production and benefits to smallholder farmers.
- A new Seed Act was approved in 2010 to upgrade the National Seed Administration to ensure plant breeders’ rights and provide sound regulation of the seed production chain.

¹⁷ FAO; Programme for Agricultural Recovery, Reconstruction and Development in the Darfur Region (in support of DDS and State Five-Year Plans for the Agriculture and Livestock Sectors’ Development Strategies for Darfur); June 2013

- The Agricultural and Livestock Professional Organization Act of 2011 replaced existing laws on farmers, producers and pastoral unions and establishes the legal basis for new autonomous producers' organizations.
- A Comprehensive Food Security Policy was formulated in 2013 (with technical support of FAO) and is awaiting official endorsement. It incorporates actions on food security and nutrition policy, identifying players, timings and synergies to already ongoing food security-related endeavours. The policies are envisaged to be coordinated by a Food Security Technical Secretariat (FSTS) under the umbrella of a proposed National Food Security Council.

3.10 United Nations Development Frameworks and Response Plans

3.10.1 United Nations Development Assistance Framework (2013-2016)

The current **United Nations Development Assistance Framework (UNDAF)** recognizes the interface between humanitarian and development engagement, and that these stages often occur simultaneously; neither can be fully realized without acknowledging the other. Achieving a smooth transition to recovery and longer-term development, while continuing to practice responsible humanitarianism, thus represents the cornerstone for the Framework.

Under this overarching goal, four inter-related pillars of cooperation have emerged as particularly critical for United Nations System support during the UNDAF period: (1) Poverty Reduction, Inclusive Growth and Sustainable Livelihoods; (2) Basic Services; (3) Governance and Rule of Law, including broad institutional strengthening and deepening of basic rights and justice for all; and (4) Social Cohesion, Peace Consolidation and Peace Dividends, with high-level efforts at the centre complemented by comprehensive development initiatives at local levels. Each pillar is represented by two outputs, which are sensitive to both early recovery and longer-term development needs of the people. Outputs of FAO's proposed CPF/PoA are restricted to **three outcomes**¹⁸ of UNDAF, namely:

- i. **Pillar 1; Outcome 1:** People in Sudan, with special attention to youth, women and populations in need, have improved opportunities for decent work and sustainable livelihoods and are better protected from external shocks, thereby reducing poverty (*including “revitalization of agriculture”*).
- ii. **Pillar 1; Outcome 2:** Populations vulnerable to environmental risks and climate change become more resilient, and relevant institutions are more effective in the sustainable management of natural resources (*including “combating environmental degradation, climate change and disaster risks”*).
- iii. **Pillar 2; Outcome 3:** Government and stakeholders have evidence-based policies, strategic plans and mechanisms to ensure an enabling environment for improved basic services (*including “conducive, capacity development-oriented context for the Government to take the lead in developing sectoral investment, implementation and management, ensuring sustainable delivery of services focusing more on providing the enabling environment to develop the civil service; sound Government structures are in place that promote systemic reforms for wide sectoral coordination, accountable governance and effective and efficient coordination mechanisms based on effective sectoral information and monitoring systems; and finalization and activation of sectoral policies and strategic plans”*).

Given the importance of the agriculture sector to the recovery of the Sudanese economy – especially since the loss of oil revenues to South Sudan – development of the sector is under-represented in the Outcomes of UNDAF (2013-2016) and FAO's role in implementing Pillars 1 and 2 is limited. The United Nations Country Team might therefore consider revising those Pillars, expanding their outputs and increasing FAO's involvement in the activities related to food and nutrition security, production

¹⁸ However, UNDAF only cites FAO as a partner in two outcomes, i.e. Nos. 1 and 2

and employment generation in rural areas, land and water management, agricultural climate change adaptation, technology generation and transfer, control of transboundary plant and animal pests and diseases, policy development and knowledge management and sharing, resilience building, etc. – given FAO's recent institutional support to ARP-II and DDS.

3.10.2 Strategic Response Plans

Sudan has enjoyed only two periods of nationwide peace (from 1952 to 1955 and from 1972 to 1983) since independence, and it is one of just a small handful of countries that have launched a consolidated international humanitarian appeal every year (i.e. CAP and its successor, SRP) so far this century. Humanitarian response in Sudan is largely driven by the consequences that armed conflict has on its civilian population. As the conflict in the Darfur Region heads towards its twelfth year, the humanitarian challenge has never been greater, with record cumulative and new totals of displaced people and rising levels of acute malnutrition. All of this occurs within a context where the capacity of impartial and neutral humanitarian organizations is overstretched and access to affected people is subject to stringent administrative controls and security constraints.

In this context, the United Nations and partners' collective humanitarian operation in Sudan (and its HNO and SRP) is delivered in a programme cycle management framework that strives to meet the standards of: programme quality (e.g. impartial assessments); accountability (e.g. stakeholder consultation and accountability); "rights up front" (e.g. protection of civilians and aid workers); conflict and environmentally sensitive; and resilience, early recovery and transition to development. The latter "resilience" standard requires that "humanitarian response is undertaken in a manner that is sympathetic to long-term development objectives, that strengthens the resilience of households and communities wherever possible, and that helps the transition through early recovery to durable solutions".

The United Nations and partners have agreed on the strategic objectives for SRP 2015 as follows:

- save lives of vulnerable people affected by conflict and disaster;
- protect conflict-affected populations from violence, neglect and exploitation;
- reduce food insecurity and malnutrition below emergency levels across Sudan; and
- strengthen resilience and facilitate durable solutions for conflict affected people, including integration and voluntary return.

There are 11 individual sector response plans within the Sudan SRP, namely: (i) education; (ii) emergency shelter and non-food items; (iii) food security and livelihoods; (iv) health; (v) nutrition; (vi) protection; (vii) recovery, return and reintegration; (viii) refugee multisector; (ix) water, sanitation and hygiene; (x) coordination and common services; and (xi) logistics and emergency telecommunications. The 11 sectors in Sudan in turn plan a set of complementary activities under each of the four aforementioned strategic objectives. Key priority actions for 2014 Sudan SRP included:

- improving emergency preparedness and responding promptly to new crises of displacement;
- addressing the extremely high levels of malnutrition and tackling the underlying public health issues driving these;
- enhancing the security of conflict-affected populations;
- facilitating better access to essential services in camps and host communities;
- reducing food insecurity and increasing household economic autonomy; and
- re-establishing humanitarian presence in currently inaccessible areas of South Kordofan, Blue Nile and the Darfur Region, initially to achieve comprehensive vaccination coverage.

The 2014 Sudan SRP identified a total of 6.9 million people in need of humanitarian assistance in Sudan, i.e. nearly 20 percent of the country's total population and a 56 percent increase over the 4.4 million people in need in 2013. The 2014 SRP sought USD 982 million for 419 projects (covering all 11 sectors) throughout Sudan.

3.10.3 Food Security and Livelihood Cluster/Sector

The United Nations Food Security and Livelihood (FSL) cluster/sector strategic response plan contributes towards increased food security, reduced malnutrition rates and strengthened livelihoods. The sector seeks to save lives and improve the dignity and well-being of the targeted populations through meeting immediate food needs; improved food availability, access and diversity; economic self-reliance; and environmentally sustainable activities. The sector response plan will guide partners in planning and implementing their activities in sector-defined and prioritized geographic areas (by states and localities).

The sector objectives contribute towards two of the four strategic objectives of Sudan SRP 2015, namely: *(i) saving lives of vulnerable people affected by conflict and disaster; and (ii) reducing acute food insecurity and malnutrition below emergency levels across Sudan*. Sector activities will address targeted beneficiaries' immediate life-saving humanitarian needs whilst strengthening resilience and restoring/reconstructing livelihoods of affected populations to cope with future emergencies and shocks. Emphasis is put on promotion of both gender and environment mainstreaming in partners' projects, ensuring that planned activities are actually implemented on the ground through active monitoring. During monitoring, beneficiaries' perception of the assistance and support (in terms of quality, quantity and timeliness) provided by partners is assessed and feedback provided to partners in order to improve on future support.

The FSL sector in Sudan seeks to alleviate suffering among affected populations through effective coordination of multiple assistance efforts. The sector is co-led by FAO and WFP and works with all stakeholders with an interest or activity in food security and livelihoods, including relevant agencies of the Government of Sudan, other United Nations agencies, international and national NGOs, academic and research institutions and the Red Cross/Red Crescent Movement.

The FSL sector coordinates current and planned food security and livelihood interventions, and disseminates relevant information to partners. It strengthens preparedness and response to food security and livelihood emergencies, while promoting capacity building of partners. The sector supports people with food assistance and productive livelihood inputs in areas to which people have fled, as well as in areas where people have returned and have access to land for cultivation. As well as environmental impacts, food insecurity amongst returnee populations may also put certain women, girls, boys and men at risk of sexual exploitation and abuse and gender-based violence. It is the responsibility of the sector partners to ensure these "cross-cutting issues" are considered. The FSL sector also works closely with the Nutrition, Health, Water, Sanitation and Hygiene, and Protection sectors in planning and organizing assessments and sharing information on sector activities/interventions.

FSL sector coordination operates at both national and state levels, and the work of the partners in 2015 is based on the "Sudan United Nations and Partners' Humanitarian Work Plan", in which the sector objectives are to: (i) reduce acute food insecurity and save lives of vulnerable people affected by conflict and natural disasters; (ii) restore and improve food and livelihood security of vulnerable households in affected areas; and (iii) strengthen FSL sector coordination and information management for effective and timely humanitarian response.

4. FAO'S APPROACH FOR RESILIENT LIVELIHOODS TO SUSTAINABLE AGRICULTURE, FOOD SECURITY AND NUTRITION IN SUDAN



4. FAO'S APPROACH FOR RESILIENT LIVELIHOODS TO SUSTAINABLE AGRICULTURE, FOOD SECURITY AND NUTRITION IN SUDAN

4.1 FAO's Strategic Framework

In 2010, FAO realigned its core business towards a new “strategic framework”, to be implemented through an initial plan of action for renewal. The Vision included in FAO’s Strategic Framework 2010-2019 is that, “*by 2020, we will be living in a world free of hunger and malnutrition where food and agriculture contribute to improving the living standards of all, especially the poorest, in an economically, socially and environmentally sustainable manner*”. In this context, the Members of FAO have agreed on three **Global Goals** for the Organization, namely:

- i. eradication of hunger, food insecurity and malnutrition, progressively ensuring a world in which people at all times leave sufficient safe and nutritious food that meets dietary need and food preferences for an active and healthy life;
- ii. elimination of poverty and the driving forward of economic and social progress for all, with increased food production, enhanced rural development and sustainable livelihoods; and
- iii. sustainable management and utilization of natural resources, including land, water, air, climate and generic resources for the benefit of present and future generations.

4.1.1 FAO's Strategic Objectives

In order to achieve its Vision, FAO has defined five **Strategic Objectives (SOs)**, namely:

- SO1 – Contribute to the eradication of hunger, food insecurity and malnutrition.**
- SO2 – Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner.**
- SO3 – Reduce rural poverty.**
- SO4 – Enable more inclusive and efficient agricultural and food systems at local, national and international levels.**
- SO5 – Increase the resilience of livelihoods to threats and crises.**

The Strategic Objectives focus on where FAO can best assist Member States to achieve **sustainable impacts in addressing the challenges and opportunities facing food, agriculture and rural development**. They represent a combination of interlinked and cross-sectoral impacts, addressing the areas of crops, livestock, fisheries, food safety, forestry, natural resources, enabling environments, food security, gender, emergencies and investment. FAO has subsequently prepared a global Programme of Work comprising Action Plans for each of the Strategic Objectives. The outcomes and outputs of the Actions Plan provide a results-based monitoring matrix for coordinating the Organization’s Regional Priority Areas/Initiatives and individual Country Programming Frameworks (Sections 4.1.2 and 4.1.3) – where the proposed PoA for Sudan is of direct relevance.

In addition to the areas of work identified for each Strategic Objective, two **cross-cutting themes** have been developed so as to ensure that their respective perspectives are fully integrated into the Organization’s Programme of Work: (i) the integration of **gender** issues in all aspects of its work; and (ii) the importance and diverse contributions of good **governance** across all SO outputs.

Furthermore, and in line with the methodology of managing for SO outputs, an **additional Objective (“No. 6”)** will cover the provision of **technical quality, knowledge and services** for the work of the Organization, encompassing core normative work. In this context, functional objectives will provide the enabling environment for: outreach; information technology; FAO governance, oversight and direction; and administration.

4.1.2 FAO's Regional Initiatives

In 2014, FAO's Regional Office for the Near East and North Africa (RNE), which covers Sudan, defined three Regional Initiatives¹⁹, namely:

- 1. Sustainable Small-scale Agriculture for Inclusive Development.**
- 2. Building Resilience to Enhance Food Security and Nutrition.**
- 3. Water Scarcity.**

The Regional Initiatives are a way to support the national policies and programmes of Member States, such as Sudan, through the delivery of products and services from across the results frameworks of FAO's five Strategic Objectives in an integrated and coordinated manner – involving contributions from services across the Organization (i.e. headquarters, regional, subregional and country offices), structured around significant policy processes and CPFs. Further details are provided in Annex 3.1.

FAO has selected Sudan as a model country for piloting/demonstrating its Regional Initiative for “Sustainable Small-scale Agriculture for Inclusive Development” – to be interwoven by the second Regional Initiative for “Building Resilience to Enhance Food Security and Nutrition”.

4.1.3 Sudan Country Programming Framework (2012-2016)

The **Sudan CPF**, which is co-owned by FAO and the Government of Sudan (through its Ministries of Agriculture and Irrigation; of Livestock, Fisheries and Rangelands; of Environment, Forests and Physical Development; and of Water Resources and Electricity), presents the broad commitment of the Organization, subject to the availability of the required funding, to assist the Federal and State Governments in their efforts to achieve their own national and state development objectives for agriculture, food and nutrition security and NRM, as identified in the Interim Poverty Reduction Strategy Papers I and II (2011-2016), the Second National Five-Year Development Plan (2012-2016), the Three-Year Economic Crash Programme (2012-2015), the Second Agricultural Revival Programme (2012-2016) and the 18 States Five-Year Development Plans (2012-2016). The CPF also supplements and contributes to the current UNDAF (2013-2016), as well as its predecessor: UNDAF (2008-2012). The CPF identified **four priority areas (and five outcomes and 15 outputs)**, namely:

Priority Area 1. Capacity building and consolidation of policy, laws, planning and information institutions; system and mechanism reforms; and development in agriculture, forestry, fisheries of Sudan.

Priority Area 2. Capacity building of agricultural research, technology and knowledge development and transfer for enhanced productivity, production and improved institutional competitiveness, systems and mechanisms in agriculture, forestry, fisheries in Sudan.

Priority Area 3. Capacity building of natural resource development and conservation institutions, systems and mechanisms in agriculture, forestry and fisheries in Sudan.

Priority Area 4. Capacity building of the disaster risk management (DRM) institutions, systems and mechanisms in agriculture, forestry, and fisheries in Sudan.

Further details of CPF outcomes and outputs are provided in Annex 3.2.

¹⁹ As adopted by the Thirty-Second FAO Regional Conference for the Near East Region (Rome; February 2014)

4.1.4 FAO's Programme for Agricultural Recovery, Reconstruction and Development in the Darfur Region (2014-2019)

In June 2013, the FAO Representation in Sudan and its Headquarters' Emergency and Rehabilitation Division, with technical support of RNE's Task Force for the Darfur Natural Resources Programme, mobilized a multidisciplinary mission to develop a fully-fledged programme of project proposals to support the recovery, reconstruction and development of the agriculture sector in the Darfur Region consistent with Pillars I, II and III of DDS. The main output of the mission was a programme document that covers six key supportive and interlinked agricultural themes of Pillars I, II and III of DDS over the short, medium and long terms, viz: (i) capacity development and reconstruction; (ii) crop production and productivity; (iii) livestock production and productivity; (iv) value chain development; (v) conflict prevention (land use and access to natural resources); and (vi) natural resource management – all targeting vulnerable groups, including IDPs, refugees, returnees and host communities in the states of Central, East, North, South and West Darfur, as well as government and private sector agricultural support service providers.

The overall development goal of the “**Darfur Agricultural Recovery, Reconstruction and Development Programme**” is to support DDS in “the establishment of a comprehensive system for economic recovery, development, planning and financial management that ensures the sustainability of the Strategy beyond its six-year implementation period” with specific reference to food and agriculture, rural livelihoods and natural resources.

The Programme is comprised of one “capacity development” subprogramme that interconnects with three model investment projects – all with short-term (one to two years), medium-term (three to four years) and long-term (five to six years) dimensions²⁰, namely:

- 1. Capacity Development Subprogramme.** Capacity development of service providers operating in the agriculture sector of the Darfur Region; to strengthen institutions and develop capacities of stakeholders, including all levels of regional government and provide the required administrative, advisory capacitating services to impoverished farming households of IDPs, refugees, returnees and host communities, *including agricultural census, physical and human capacity development of state and locality-level agricultural support services, agriculture and food security policy development, adaptive research and participatory agricultural extension system (e.g. FFS), seed supply system, transboundary animal disease (TAD) control system, community animal health system, natural resource and land-use database – costed at USD 58.6 million (USD 18.9 million in the short term).*
- 2. Model Investment Project 1.** Recovery of food security and livelihoods of vulnerable farming and agropastoralist communities in the Darfur Region; to increase the productivity and production of crops and livestock for impoverished farming households in target catchment areas through the rehabilitation and construction of soil and water infrastructure and adoption of new and improved sustainable production techniques and NRM and peacebuilding measures by smallholder farmers and agropastoralists, *including community-based catchment management planning, water harvesting, conservation agriculture, FFSs for climate-smart agriculture, community-based seed multiplication, community animal health services, land tenure/conflict resolution, rehabilitation of forest reserves, community forestry and range management – costed at USD 46.9 million (USD 15.1 million in the short term).*
- 3. Model Investment Project 2.** Recovery of livelihoods of vulnerable pastoralist households in the Darfur Region – upgrading natural resources and improvement of livestock carrying capacities along migratory stock routes; to increase livestock productivity and production of impoverished farming households along targeted traditional stock routes of the Darfur Region

²⁰ FAO; Programme for Agricultural Recovery, Reconstruction and Development in the Darfur Region (in support of DDS and State Five-Year Plans for the Agriculture and Livestock Sectors' Development Strategies for Darfur); June 2013

through the rehabilitation and construction of water supplies, adoption of new and improved sustainable livestock production technologies and practices by smallholder agropastoralists and nomadic pastoralists, and peaceful co-existence of different land users and multi-ethnic communities, *including land-use planning, land tenure/conflict resolution, water points, FFSs for pasture and fodder development, community animal health services, stock route demarcation and pilot private/community-based ranches – costed at USD 17.8 million (USD 8.2 million in the short term)*.

4. **Model Investment Project 3.** Enhanced income-generating and employment opportunities in areas of the Darfur Region with the potential for high levels of agricultural production; to increase food production and income of impoverished farming households in target localities through the rehabilitation and construction of soil and water conservation infrastructure, adoption of new and improved sustainable production and post-harvest management technologies and practices by smallholder farmers and agropastoralists, establishment of local agribusiness enterprises and strengthening of input supply and market linkages to improve the competitiveness and sustainability of selected value chains, *including market assessments, water harvesting, conservation agriculture, FFSs for livelihood diversification, technology transfer of post-harvest management techniques, producer market organizations and small agro-enterprise development – costed at USD 23.1 million (USD 3.3 million in the short term)*.

The total cost of the six-year Programme is estimated at USD 146.4 million, of which USD 45.5 million is earmarked for the short term.

4.2 Resilient Lens to Sustainable Agriculture, Food Security, Nutrition and NRM in Sudan

The humanitarian and development agendas in Sudan have grown closer as the complex and protracted crisis continues and the linkage between the resulting humanitarian suffering and the prevalent underdevelopment of the country have become increasingly intertwined. It is inevitable that a population mostly dependent on natural resource-based livelihoods and suffering from chronic and acute food insecurity, malnutrition and poverty will suffer more from the impacts of additional shocks, climate change and variability and environmental and economic decline.

Sudan is characterised by a risk-prone environment which includes different types and often concomitant shocks (and stresses – depending on the acuteness of the event), including natural (e.g. prolonged dry spells and droughts, torrential rainstorms and floods, sandstorms, wildfires and transboundary plant and animal pest and diseases); manmade (i.e. conflict and displacement); and socio-economic (e.g. escalating food and input prices) – all compounded by deforestation, land degradation, limited access to land for the poorest populations, conservative cultural norms and loss of biodiversity. The recurrence of multiple shocks and stresses has negative effects on food and nutrition security and the natural resource-based livelihoods of people, while eroding their capacities to withstand and cope with future shocks.

Generally, dealing with natural and man-made recurrent shocks has resulted in high levels of humanitarian spending which, whilst providing immediate relief, has not addressed the root causes of such crises. Therefore, in such contexts, while humanitarian responses remain of crucial importance, there is consensus on the need to fully address the underlying causes of crises, which are often complex and long term in nature. Against this background, the concept of resilience has emerged as a viable framework for integrating humanitarian and long-term development initiatives. Resilience is generally defined in terms of the capacities of individuals, households, communities and countries to absorb shocks, adapt to a changing environment and, in a longer-term perspective, contribute to transform the related institutional environment.

Resilience therefore provides FAO with a framework for addressing, in a unified and sustainable manner, the acute and chronic causes of food and nutritional crises – while helping vulnerable people increase their incomes, access infrastructures and basic social services and build wealth by sustainably

strengthening their livelihoods and creating a more conducive institutional environment. To achieve these goals, resilience programming is developed according to **four interconnected and mutually reinforcing pillars** working at all administrative levels and serving most vulnerable communities through the appropriate institutional levels depending on the existing capacities and partners, namely:

Pillar 1 aims at building and implementing legal, policy and institutional systems and regulatory frameworks for disaster and crisis risk management for agriculture, food and nutrition.

Pillar 2 aims at delivering regular information and trigger timely actions against potential, known and emerging threats to agriculture, food and nutrition.

Pillar 3 applies prevention and impact mitigation measures that reduce risks and vulnerability for agriculture, food and nutrition at household and community levels.

Pillar 4 support countries and regions affected by disasters and crises with impact on agriculture, food and nutrition to prepare for, and manage, effective responses.

Resilience programming is based on the concept of creating capacities at all levels (i.e. household, community and institutional) to deal with shocks in a proactive and preventive manner. The specific capacities embedded in the concept of resilience are: (i) the ability to recover after a shock (the “absorptive” capacity); (ii) to adapt to a changing environment (the “adaptive” capacity); and (iii) to transform an enabling institutional environment (the “transformative” capacity). Understanding and investing in these capacities is expected to help communities to anticipate, prepare for and deal with shocks of a recurrent and prolonged nature. It is therefore important to understand what factors contribute to resilience in order to strengthen them by providing the evidence for more effectively designing, delivering, monitoring and evaluating assistance to populations in need, based on their most pressing needs. The measurement and analysis of household resilience to food insecurity in Sudan²¹ was based on the FAO “Resilience Index Measurement and Analysis (RIMA)” model²².

The findings of this analysis show the differences in the resilience of households according to their geographical location (e.g. regions and rural/urban areas) and type of livelihood. In this regard, it is noted that household resilience to food insecurity is mainly influenced by household income and food access. This highlights the need to promote income-generating activities as an important policy instrument in the effort to improve household resilience to food insecurity and malnutrition. Moreover, findings indicate that another key limiting factor to household resilience in rural areas is their access to agricultural and productive assets. Therefore, policy should be geared towards agricultural intensification and diversification that will enhance productivity and production. This includes, for example, the promotion of new and improved climate-smart technologies and practices, reduction of post-harvest losses and increased added value and investment in irrigation schemes (and similar rural infrastructure). Moreover, irrigation could help to diversify income sources to high-value crops and enhance household resilience. Additionally, provision of credit incentives, with the aim of increasing agricultural productivity of local farmers, could help to increase average income of the households and hence their resilience to food insecurity and malnutrition.

Furthermore, the study found that households in Khartoum and northern, central and eastern regions of the country are more resilient to food insecurity than households in Kordofan and Darfur regions. This is due to very low access to basic facilities (e.g. education, health and markets), productive assets (e.g. land and water) as well as food and income and food in the former regions. Therefore, resilience programming and related investments should try to address these gaps. The analysis by residential areas (i.e. urban and rural) has also indicated that urban households are more resilient than rural

²¹ FAO internal report; Sudan Household Resilience to Food Insecurity (this study is based on NBHS 2009) developed and implemented by the Republic of Sudan between May and June 2009 on a nationally representative sample

²² FAO’s RIMA model identifies and weighs factors that make a household resilient to food insecurity and traces the stability of those factors over time

households as the urban areas have better access to food and income, to basic services and to non-agricultural productive assets.

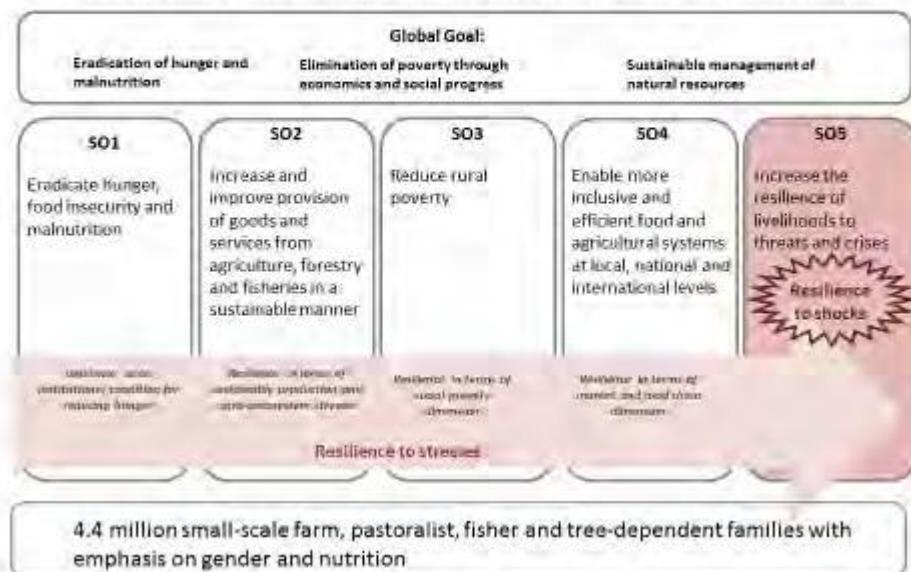
Against this background, the CFP/PoA is designed to address food security- and nutrition-related issues in a resilient perspective. In particular, the relevant priority elements and cross-cutting actions are reflected in the specific objectives of the PoA, as they are mainly contributing to the overarching outcome of reducing food insecurity and malnutrition and diversifying incomes to increase the resilience of vulnerable landless, marginal and small-scale farmers and pastoralists. More precisely, efforts will focus on:

- evidence-based agricultural policy development supported by adequate food and nutrition information systems;
- enhanced agricultural production of smallholder farmers or households and rural communities to harvest respective crops, animals, trees, fish, etc.;
- access to key productive natural resources; and
- livelihood protection and recovery – with capacity development, food-based nutrition, gender equality, peace and stability building and PPPs as cross-cutting themes (Chapter 5).

Addressing malnutrition in rural areas of Sudan requires complementary multisectoral strategies and approaches that respond both to the short-term immediate needs and the longer development challenges. The agriculture sector plays an important role in improving people's nutrition by increased availability, affordability and consumption of diversified diets and safe and nutritious foods, aligned with dietary recommendations and environmental sustainability.

Like sustainable development, “resilience” has many dimensions which are reflected in the new FAO strategic framework and its five Strategic Objectives, i.e. policy/institutional (under SO1), agro-ecological and service delivery (SO2), rural poverty and social safety nets (SO3), value chain and economic (SO4) and disaster risk reduction (DRR)/risk and crisis management (SO5) (Section 4.1.1). Consequently, resilience to shocks and stresses is a central element in the proposed Plan of Action, and is a pre-condition for the sustainable recovery and development of vulnerable smallholders in Sudan – cutting across and contributing to all five Strategic Objectives (Figure 1).

Figure 1.
SUDAN: Resilient Livelihoods for Sustainable Agriculture, Food Security and Nutrition in the New FAO Strategic Framework



4.3 FAO's Good Practices in Sudan's Agriculture Sector

Over the past decade, FAO Sudan – in partnership with government agencies and institutions (such as those from MoAI, MoLFR and MoEFPD) and civil society organizations (e.g. academic institutions, NGOs and farmer/pastoralist/fishers' organizations) – has implemented a series of national, regional and global humanitarian relief, livelihood protection/recovery and agricultural development programmes and projects (on behalf of the Government of Sudan, development partners and the Organization itself) from which **lessons have been learned** that are key to the formulation of the CPF/PoA for Sudan. Such programmes and projects include:

- European Union-funded and FAO-implemented capacity building component of the “Sudan Productive Capacity Recovery Programme (SPCRP-CB)” (2007-2012; EUR 19 million); further details are provided in Annex 3.3.
- European Union-funded and FAO-implemented “Sudan Institutional Capacity Programme: Food Security Information for Action (SIFSIA)” (2007-2012; EUR 10 million); and its successor, the “Food Security Policy and Strategy (FSPS) Capacity Building Programme” (2012-2015; EUR 8.6 million); further details are provided in Annex 3.3.
- FAO/TCP-funded “Demonstration of Improved Water Management and Control Practices for Increasing Agricultural Productivity in the Rainfed Areas” (2010-2013; USD 500 000).
- FAO/TCP-funded “Surveillance and Diagnosis of Foot and Mouth Disease” (2011-2014; USD 491 000).
- Government of Canada-funded and FAO and UNIDO-implemented “Integrated Food Security Project (IFSP) in Kassala State” (2012-2016; USD 5.92 million [*FAO component*]).
- United Nations’ Darfur Community Peace and Stability Fund (DCPSF)-funded and FAO-implemented “Increasing Cooperation between Conflicting Communities through Promoting Dialogue and Enhancing Livelihoods and NRM in North and West Darfur States” (2009-2014; USD 2 million).
 - Codex Trust Fund-funded and joint FAO/World Health Organization (WHO)-implemented “Mycotoxin in Sorghum Project” (2013-2014; USD126 877).
 - FAO/TCP-funded “Technical Support for a Comprehensive Agricultural Census” (2013-2014; USD 398 000).
 - FAO/TCP-funded “Development of a Quality Seed Production System and Value Addition in Sudan” (2014-2016; USD 370 000).
 - UK/DFID-funded “Joint Resilience-Building Project in Kassala” (2014-2016; USD 5.8 million – implemented jointly with UNICEF and WFP).
 - FAO/TCP-funded “Technical Assistance to Support Food Security and Livelihoods of the Pastoralist Groups in West Kordofan, Sudan” (2014-2015; USD 500 000).

Since 2003, FAO Sudan has implemented an “emergency relief and rehabilitation programme” (worth in excess of USD 200 million) – funded by various bilateral and multilateral humanitarian and development partners – that has been providing extensive support to, not only humanitarian relief and livelihood protection and recovery for vulnerable households in the crops, livestock, forestry and fisheries subsectors, but also to NRM and other related livelihood resilience-building interventions. These have been implemented primarily across three conflict, drought and pest- and disease-affected regions of Sudan, viz: (i) Darfur (i.e. Central, East, North, South and West Darfur States); (ii) Transitional Areas (i.e. Abeyei and Blue Nile, Southern Kordofan and White Nile States); and (iii) eastern Sudan (i.e. Gedaref, Kassala, Red Sea and Sinnar States) – and more recently in Northern and North Kordofan States. The Organization has implemented its emergency relief and rehabilitation operations from a central unit based at the FAO Representation in Khartoum, Sudan, and 11 field offices located in the respective states and regions.

Annex 3.4 provides a portfolio of FAO’s current projects, including “hard” and “soft” pipeline project proposals – the more relevant of which are inclusive to the CPF/PoA for Sudan.

Several **good practices**²³ have been tested and validated by the actors and beneficiaries of FAO's humanitarian relief, livelihood protection/recovery and agricultural development programmes and projects and are therefore recommended for replication and up-scaling by government agencies and civil society organizations (CSOs) and sharing and adoption by greater numbers of smallholder farmers, pastoralists, fisherfolk and tree-dependent communities under interventions proposed by CPF/PoA for Sudan²⁴, namely:

- **Capacity development of government institutions**, including agricultural and animal resources research centres, federal and state-level food security technical secretariats, state-level training units and agricultural extension services, regional-level seed multiplication units and university agricultural and forestry faculties (Annex 3.3).
- **Food security information systems** for more inclusive and better integrated and informed **food security decision making and policy development** at federal and (Blue Nile, Gedaref, Kassala and Red Sea) state levels, including “IPC” – a tool for improving food security analysis and decision-making by means of a standardized scale that integrates food security, nutrition and livelihood information into a statement about the nature and severity of a crisis and implications for strategic response (Annex 3.3).
- **Control of transboundary animal and plant pests and diseases** – through surveillance, monitoring, reporting and early warning systems, vaccination campaigns and integrated pest and disease management (IPM) measures – linked to regional and global networks (e.g. FAO’s Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases (EMPRES), Emergency Centre for the Control of Transboundary Animal Diseases (ECTAD), Emergency Centre for Locust Operations and the Commission for Controlling the Desert Locust).
- **Community animal health workers (CAHWs)** – the CAHW delivery system has been promoted and expanded by FAO and NGOs in collaboration with the State Ministries of Agriculture and Animal Resources and their public veterinary authorities due to weakening of the conventional veterinary services. Delivery of animal health services through the community-based approach was found to be the most appropriate system in the remote areas. CAHWs have been trained and equipped and facilitated the organization of vaccination campaigns. Despite the widespread insecurity, four to five million heads of animals are vaccinated annually in Darfur Region, with the support of humanitarian actors using CAHWs operating as free service providers under strict public supervision.
- **Community animal resources development (CARD) services** – a model for providing participatory holistic livestock development, including community-based primary animal healthcare, animal production (i.e. feeding, reproduction, breeding, biosecurity, etc.), cost recovery of inputs (e.g. feed, minerals and medicines) and surveillance of transboundary animal diseases through trained, equipped and self-supporting community animal resources development associates (CARDAs) (Annex 3.3).
- **Farmer and pastoral field school (FFS)** group-based approach to adaptive agricultural research and participatory learning and agricultural extension, especially for IPM, on-farm water management, agroforestry and DRR (Annex 3.3).
- **Community-based natural resource management**, i.e. promotion of water harvesting (e.g. rehabilitated hafirs and shallow wells), woodlots and agroforestry, fuel-efficient mud stoves and intercropping and crop rotation with legumes for soil fertility management and improved animal fodder (as well as improved household food nutrition) for groups at risk.
- **On-farm water management (OFWM)**, i.e. improved community and farm-level water harvesting and small-scale irrigation systems and establishment of water users’ groups for enhanced water management in agro-ecological zones prone to drought and climate variability.

²³ FAO defines a “good practice” as an approach, methodology or technology that is effective and successful, environmentally, economically and socially sustainable, gender sensitive, technically feasible, inherently participatory, replicable and adaptable and reducing disaster/crisis risks (if applicable)

²⁴ FAO-Sudan; “Resilience Country Support Process” workshop; Khartoum, September 2014

- **Post-harvest management** – to reduce food losses and add value to agricultural produce through new and improved technologies and practices in cleaning, grading, packaging, storage, transportation and marketing at the household and community levels – as part of an integrated value chain approach.
- **Voluntary Guidelines on the Responsible Governance of Tenure of Land in the Context of Food Security (VGGT)** – to promote secure tenure rights and equitable access to land, fisheries and forests as a means of eradicating hunger and poverty, building peace and social stability, supporting sustainable development and enhancing the environment.

Globally, FAO has generated other good practices which are highly relevant to the agro-ecological and livelihood zones of Sudan and the challenges faced by the country's agriculture sector and food industries, e.g. conservation agriculture on degraded rainfed lands (i.e. zero burning and grazing, minimum/zero tillage, intercropping of leguminous cover crops, mulching of crop residues and crop rotations); household food nutrition (i.e. diversified diets and improved food preparation and storage); and food safety (i.e. sanitary/phytosanitary [SPS] control, improved food quality and safety, and development and adoption of international food standards).

4.4 FAO's Comparative Advantage in Sudan

In principle, the comparative advantages of FAO are derived from its mandate as the lead international agency in agriculture, food security and nutrition. FAO has been a long-term partner of the Government of Sudan on agricultural and food security issues since Sudan became a member country more than three decades ago. FAO's strengths in Sudan, which are recognized by both the Government and its development partners, are:

- its very high level of technical knowledge and experience in agriculture and food and nutrition security in the country and globally – especially regarding international best practices and international standards;
- its standing as an independent United Nations agency which can act as a neutral broker for the Government and its development partners on difficult and complex issues especially related to policies, institutions and legal and regulatory reforms; and
- its ability to convene and network with other stakeholders on agriculture, food security and nutrition matters, including bilateral and multilateral donors, CGIAR centres, international and national NGOs and civil society and private sector organizations present in the country.

Moreover, the rich knowledge base of FAO in which pools of expertise exist at headquarters and regional levels which can be tapped whenever this expertise is required at country level adds to the comparative advantage of the Organization. Within the Near East Region, FAO's normative and policy work is carried out by its Regional Office for the Near East and North Africa (RNE) located in Cairo, Egypt. Specialist expertise in all areas covered under the proposed PoA for Sudan is available from FAO's headquarters in Rome, Italy and RNE.

FAO has been a key partner for the Government of Sudan on many major agriculture and rural development successes. FAO has played a significant role in the development process of Sudan's agriculture sector supporting a number of programmes and projects that saved lives and promoted the recovery and development of the crops, livestock, fisheries and forestry subsectors and natural resource base. The Organization has executed some 580 projects with a value in excess of USD 480 million (of which some 40 percent has been in support of humanitarian relief and livelihood protection and recovery since 2003).

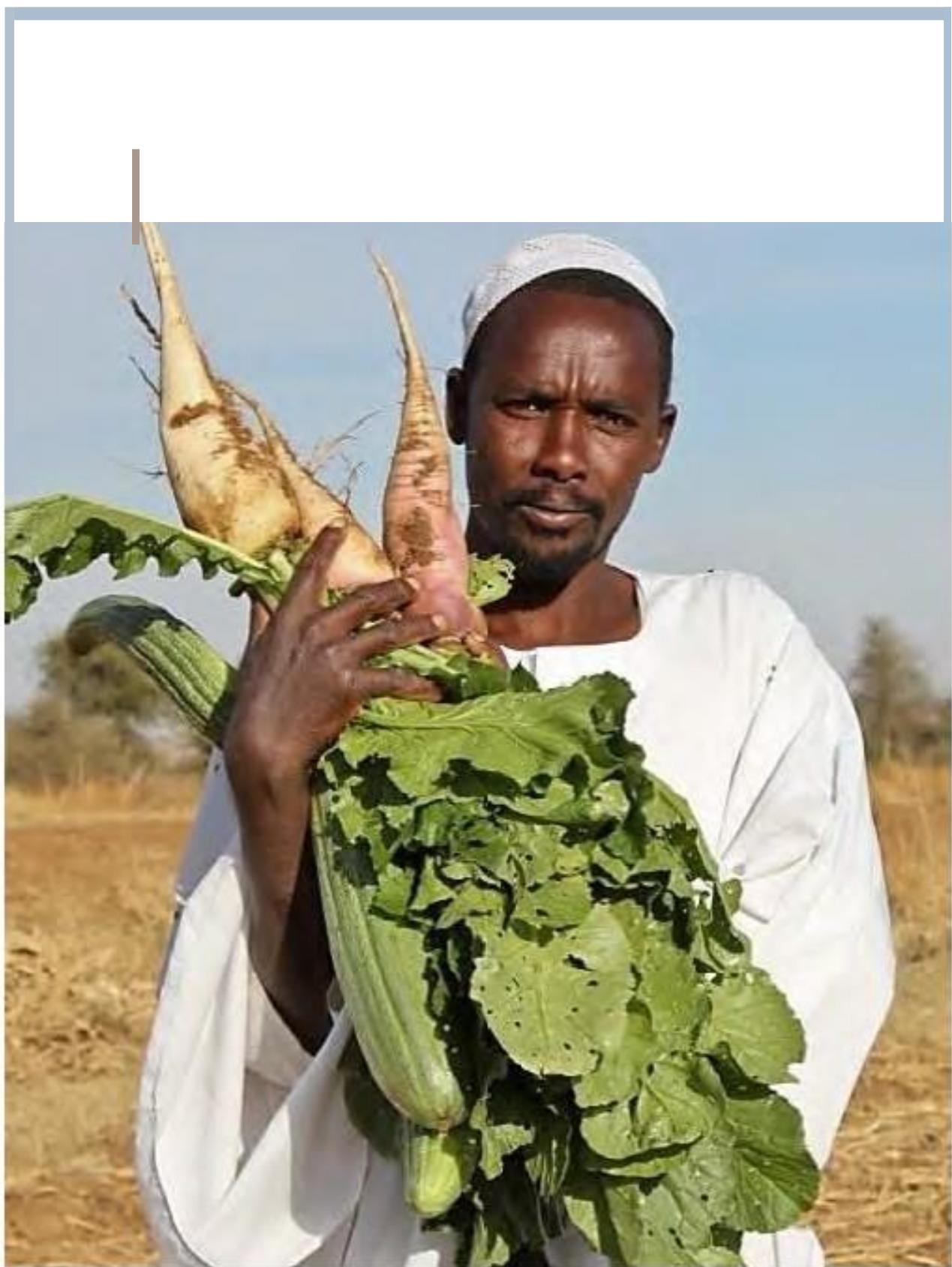
The experience and standing of FAO therefore make it an essential partner for the Government on the new resilience-based response, protection, recovery, reconstruction and development agenda that have been proposed in the Government of Sudan's ARP-II, CPP and DDS and 18 States Five-Year Plans for the Agriculture and Livestock Sectors. This is particularly so in post-conflict periods (e.g. in the Darfur Region) when new relationships need to be established between states and regions and

between various institutions over agricultural development, NRM, DRM, etc. FAO has recently, or is at present, assisting the state governments of the Blue Nile, Gedaref, Kassala, Red Sea, River Nile and South Kordofan with the preparation of five-year agricultural strategic plans, food security and agricultural extension and agribusiness policies and strategies through SPCRP-CB, SIFSIA and FSPS Programme (Annex 3.3).

In support of its humanitarian and development efforts, FAO has stepped up its activities in Sudan since 2013 with a focus on food security policy development and information systems, livelihood response, protection and recovery, food security policy and information systems, post-harvest management, quality seed systems, TADs control, VGGT and peacebuilding and water harvesting as well as stakeholder capacity development (Annex 3.4). FAO is also the current co-lead (with WFP) of the United Nations Humanitarian Coordination Team's (UNHCT) Food Security and Livelihood Sector (cf. HNOs and SRPs), pillar co-lead (with the Darfur Regional Authority [DRA]) of Economic Recovery Pillar III for implementation of DDS and alternate chair of the United Nations' Programme Management Team for DDS.

FAO's proven ability to work with bilateral and multilateral donors and local implementing partners makes it the key international partner for the Government on agriculture, food security and nutrition matters, and in humanitarian relief, recovery and development operations. Over the past decade, FAO's major success stories include significant "good practices" that have been developed through a series of one or more FAO and donor-funded projects (Section 4.3). FAO's current and pipeline development partners are wide-ranging and include the European Union; Governments of Australia, Austria, Belgium, Canada, Italy, Qatar, the United Kingdom and the United States of America; the United Nations' Central Emergency Response Fund (CERF); and the Common Humanitarian Fund (CHF).

5. CPF PLAN OF ACTION FOR SUDAN-FRAMEWORK



5. CPF PLAN OF ACTION FOR SUDAN – FRAMEWORK

In September 2014, a joint FAO/Government of Sudan mid-term review of the CPF (2012-2016) agreed that there was a need to further prioritize the outcomes and outputs of the Framework given its broad range of priority actions (*viz a viz* FAO's comparative advantage in Sudan), unclear alignment with the evolving country situation (with regard to recent changes of government policy and FAO Strategic Framework's result chains), inherent lack of synergies and integration between development and emergency interventions and lack of resource mobilization and communication strategies; and prepare an action plan to mobilize resources and operationalize the revised priority interventions accordingly. The PoA would also extend the CPF until 2019, in line with the revised Government of Sudan's Agricultural Revival Programme and FAO's Strategic Framework.

5.1 Goal

The overall goal of the PoA for Sudan is “**to contribute to the improvement of food security and nutrition and the reduction of rural poverty in Sudan, while supporting the country’s longer-term economic development goals**”. In this context, the PoA is in line with:

- the Government of Sudan's I-PRSP (Section 3.2);
- Outcomes 1, 2 and 3 of UNDAF Pillars 1 and 2 (Section 3.10.1);
- FAO's five Strategic Objectives (Section 4.1.1); and
- MDG 1 to eradicate extreme poverty and hunger; while supporting MDG 3 (gender equality and the empowerment of women), MDG 6 (reductions in child and maternal mortality, improvement in child development and improved resistance to diseases) and MDG 7 (ensure environmental sustainability).

5.2 Objectives

The immediateobjective of the PoA for Sudan is “**to address the key challenges of food insecurity, malnutrition and rural poverty in hazard-prone areas of Sudan by strengthening the resilience of vulnerable farm families through a cohesive programme supporting relevant household livelihood protection and recovery, equitable and sustainable management of natural resources and agriculture development initiatives**”. In this context, the PoA is line with:

- the Government of Sudan's Second National Five Years Strategic Development Plan and ARP (Sections 3.3 and 3.5);
- FAO's three Regional Initiatives and updated priority areas of the CPF for Sudan (Sections 4.1.2 and 4.1.3);
- The IGAD-led “Sudan Country Programming Paper – To End Drought Emergencies in the Horn of Africa” (Section 3.7); and
- DRA's “DDS” (Section 3.8).

The PoA therefore aims to increase food availability and accessibility and diversify household incomes in order to decrease the risk of threats and crises faced by landless, marginal and small-scale men and women farmers over the extended period of the CPF (2015-2019). Moreover, the PoA prioritizes and promotes interrelated and mutually supporting and sustainable short-, medium- and long-term interventions at all levels (i.e. household, community and institutional) that would ultimately contribute to overcoming the underlying causes of vulnerability in Sudan.

The PoA is derived from four specificobjectives related to the priority areas of the updated Sudan CPF, namely:

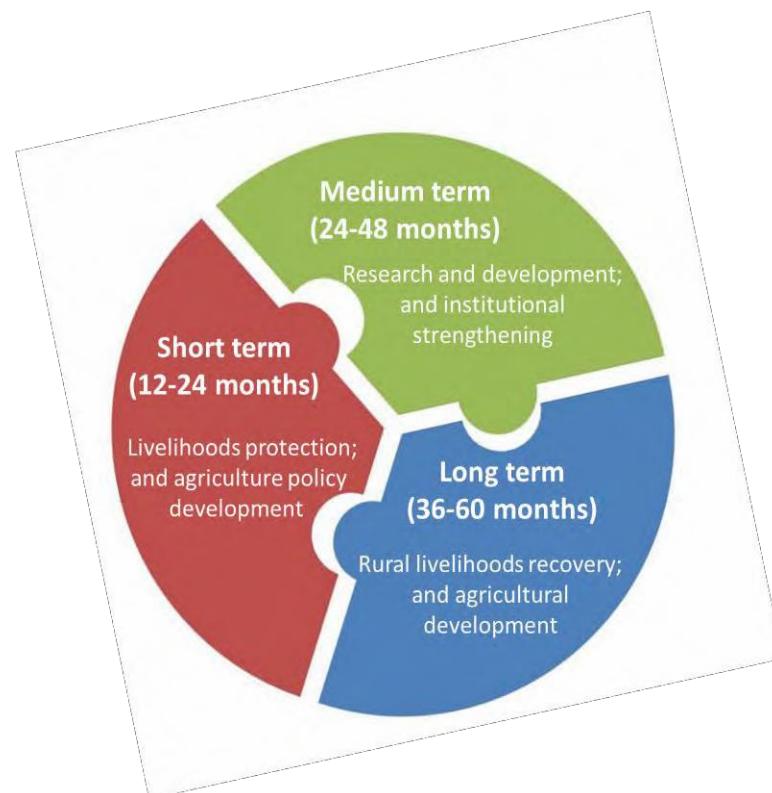
- i. **To develop an enabling environment whereby: (a) the Ministries of Agriculture and Irrigation; of Livestock, Fisheries and Rangelands; of Environment, Forestry and Physical Development; and of Health can prepare policies, strategies and regulatory**

frameworks and formulate programmes and projects (and follow-up implementation, monitoring and reporting) and operate information management and sharing systems for a reformed and more resilient agriculture sector; (b) FAO can provide more resilience-based coordination of and support to FSL Cluster/Sector of the United Nations' SRP and the Economic Recovery (as well as the Governance, Justice and Reconciliation and the Infrastructure) Pillars of DDS; and (c) FAO can assist in the required adjustment of and further support to a revised United Nations Development Assistance Framework.

- ii. To enhance the production, productivity and competitiveness of the agriculture sector (i.e. crops, livestock, fisheries and forestry subsectors) and adapt production and post-harvest technologies and practices to climate change and variability through improved adaptive research systems and participatory extension services.
- iii. To secure the access and sustainable management of natural resources (i.e. land, water, forests and rangelands) by pastoral, agropastoral and forest-dependent communities prone to recurring hazards, and enhance the protection and recovery of livelihoods of vulnerable rural communities at risk to natural and man-made threats and crises – through improved food and nutrition security and household income generation.
- iv. To improve Sudan's capacity for preparedness, early warning, controlling and monitoring local, national and international threats to the country's food chains, in particular transboundary plant and animal pests and diseases and low-quality, contaminated and condemned foodstuffs.

5.3 Timeframes for PoA Proposed Intervention Areas

As an integral part of the updated CPF for Sudan (2012-2016) and as a contribution to the Sudan NAIP and FAO's Regional Initiatives (2014-2019), the PoA for Sudan has a duration of five years (2015-2019) and is spread across three overlapping/interlocking tracks/timeframes (meaning that tracks do not necessarily have to be sequential and medium- and long-term projects and programmes could start in 2015 – where prepared, approved and funded), as elaborated below.



(i) Rapid Delivery and Immediate Impact Food and Nutrition Security and Livelihoods Protection and Short-term Risk-sensitive Agricultural Policy/Strategy Development (12 to 24 months)

This track includes food and nutrition security and agricultural-based livelihoods' protection projects and programmes (under, for example, SRP), which would have an immediate impact on families and communities directly affected by protracted crises and climate change and variability. This track would seek to support "quick win" interventions that mitigate some of the critical impacts of crises and existing programmes and projects that can be modified to respond to strategic objectives of national resilience plans and roadmaps and development strategies, and scaled up and/or implemented speedily and for which funding resources can be made available. Such interventions would also complement and extend some livelihood resilience-orientated interventions under humanitarian responses (e.g. cash and food for work/rehabilitation of water harvesting and small-scale irrigation infrastructure, distribution of quality seed and hand tools and provision of integrated homestead/family farming packages) and would be closely coordinated to ensure effective targeting of gaps and needs and prevent relapse over the longer term.

This track also includes agricultural stakeholder institutional assessments, natural resources assessments and related policy and strategy development, that would enable effective preparation and implementation of projects and programmes funded under the "medium-" and "long-term tracks", e.g. capacity development of MoAI, MoLFR, MoEFPD, Ministry of Water and Environment (MoWE) and Ministry of Health (MoH) and civil society and private sector organizations supporting the agriculture sector and land, water and forestry development initiatives.

(ii) Medium-term Delivery and Impact for Risk-sensitive Research and Development and Institutional Strengthening of the Agriculture Sector (24 to 48 months)

This track would include medium-sized projects that need longer preparation and implementation time as well as short-term track interventions that are further scaled up in areas affected by the protracted crisis and climate change and variability. These should be simple and lean interventions adapted to the specific circumstances of MoAI, MoLFR and MoEFPD, relevant private sector organizations and affected areas and populations – according to agreed parameters and mechanisms for pooling grants from government budgets and interested development partners to finance well-targeted and sustainable agriculture, food and nutrition, income generation/employment and natural resource management interventions. Stakeholder capacity development is a key cross-cutting parameter of all projects under this track (i.e. government, civil society and private sector service providers as well as men and women farmers', pastoralists' and tree-dependent peoples' groups and private sector organizations).

These interventions would have a sustained impact and the potential to further develop agriculture sector policy reforms prepared under the "short-term track" (including regulatory frameworks) and climate-smart agricultural technologies and practices for up-scaling through participatory extension approaches under the "long-term track". However, where appropriate, strategies and regulatory frameworks are already in place (e.g. seed systems, gum Arabic and producer organizations). Such research and development projects could be formulated and started, with immediate effect, in 2015.

(iii) Long-term Delivery and Impact for Rural Livelihoods Recovery and Risk-sensitive Agricultural and Rural Development (36 to 60 months)

This track includes projects and programmes aimed at mitigating the impact of protracted conflicts and climate change and variability at catchment area, stock route and state levels (such as extensive use and depletion of physical assets) strengthening livelihood resilience and institutional capacities that are nested within national and state governments' development strategies. These interventions would have a sustained development impact and the potential to

carry out agriculture sector policy reforms prepared under the “short-term track” and climate-smart agriculture technologies and practices tested, validated and replicated under the “medium-term” track.

These interventions could be funded by international financing institutions and possibly blended with grant financing from multilateral and bilateral donors. The finalization of these programmes and projects will hinge on Sudan’s institutional capacity and political will to enter into sector policy reform programmes while also managing and reducing multi-hazard risks. However, where appropriate, strategies are already in place and new and improved technologies and practices have been validated in their respective agro-ecological zones (e.g. water harvesting, on-farm water management, post-harvest management, FFSs and CARD services). Such livelihood recovery programmes could be prepared and started, with immediate effect, in 2015.

This track, although large and ambitious in terms of financial contributions, could be the most promising in terms of overcoming the current crisis and building national multidimensional livelihood resilience and agricultural development programmes. It would be possible to implement individual components of such multidimensional programmes as individual (and less costly) sectoral “medium-term” projects if the Government or development partner so requires – but this would reduce the overall livelihood-resilience impact of the original programme concepts.

The scale and scope of interventions proposed under the PoA have been based, *inter alia*, on three strategic considerations, namely:

- i. There is a need for a realistic dimension of achievable programme/project objectives (especially regarding the number of beneficiaries), given the uncertainty of the scope and duration of the protracted crisis and the limited timelines of 24 months, 48 months and 60 months.
- ii. The currently limited and overstretched government and local implementation capacity for the execution of emergency, recovery and rehabilitation projects, especially in more remote areas.
- iii. Existing localized crop calendar and transhumant needs have to be respected within any input-related intervention, and therefore represent, *per se*, a limitation in terms of speediness and number of initiatives to be implemented within a given period of time.

5.4 Intervention Areas

The CPF/PoA for Sudan identifies **four strategic intervention areas that mutually reinforce 17 short-, medium- and long-term overlapping/interlocking projects and programmes** in support of the relief, recovery and development of Sudan’s small-scale agriculture sector over an extended period of the CPF (i.e. 2015 to 2019), namely:

- i. **Improved policy and institutional environment for food and nutrition security and resilience programming – through capacity development, enhanced coordination and better informed decision making and knowledge management and sharing systems** (four short-term projects, one medium-term project and two long-term programmes; total: USD 35 million).
- ii. **Enhancing production, productivity and competitiveness of the crops, livestock and forestry subsectors and agricultural climate change adaptation** (two short-term projects, one medium-term project and one long-term programme; total: USD 40.2 million).
- iii. **Natural resource management and livelihood, food security and nutrition response, protection and recovery** (one medium-term project and three long-term programmes; total: USD 107.8 million).
- iv. **National, regional and international control of threats to Sudanese food chains** (two medium-term projects; total: USD 27.4 million).

Details of proposed programmes and projects under the PoA are summarized in Table 2 and presented as “project fiches” in Annex 4. Moreover, Annex 5 shows the connect between the outcome and outputs of PoA programmes/projects and ARP, CAADP, CPP, DDS, UNDAF and FAO Strategic Objectives and Regional Initiatives.

It should be noted that the elaborated programme/project profiles are not definitive in nature, i.e. once funding interest has been confirmed, working sessions between the respective donors/international financial institutions, relevant government line ministries and FAO would review and fine-tune the proposals in order to reach a common agreement prior to signature, including the scale of financial assistance and support duration, geographical and beneficiaries targeting and implementing partners. Therefore, there is still sufficient flexibility for justified modifications even at a later stage.

Moreover, the proposed programmes of Intervention Area 1, “Agricultural policy development and strengthening of knowledge management and sharing systems”, and the situation analyses of programmes/projects under other intervention areas, would be built on further outputs of the European Union-funded and FAO-implemented “FSPS Programme” (2012-2015; EUR 8.6 million). The overall objective of the Sudan FSPS is *“to assist and support the efforts of the Government to make food security (and agricultural development) decisions more inclusive and better integrated, informed, implemented and monitored”*.

The 17 proposed (and 12 ongoing/pipeline) programmes and projects of the PoA all have a “capacity development” and “resilience building” focus (i.e. policy development, knowledge management and sharing, institutional strengthening, technology transfer, DRR, PPPs, etc.) that would mutually reinforce ongoing and future agricultural investment programmes to be confirmed/identified through the ongoing NAIP process.

5.5 Timelines for Proposed Projects and Programmes

The total duration for the CPF/PoA for Sudan is five years, from January 2015 to December 2019. Timelines for the implementation of individual programmes and projects under the PoA are provided in Table 3. It is the nature of the PoA that all proposed short-, medium- and long-term projects and programmes are given the highest priority by the Government of Sudan, DRA and FAO. However, to ensure that institutional reform-focused projects and long-term technical assistance programmes have a prompt start-up and to facilitate optimum FAO technical and operational support throughout, the timelines for some PoA interventions have been slightly staggered.

Table 2. CPF/PoA for Sudan: Intervention Areas, Programmes and Projects

1. Improved Policy and Institutional Environment for Food and Nutrition Security and Resilience Programming – through capacity development, enhanced coordination and better informed decision making and knowledge management and sharing systems				
<i>Ongoing and pipeline FAO projects: European Union-funded “FSPS programme” (2012-2015; EUR 8.6 million); FAO-funded “Technical support for a comprehensive agricultural census” (2013-2014; USD 398 000); Government of Qatar-funded “Assessment and technical support to the Darfur Land Commission and addressing land concerns at return sites” (18 months; USD 415 000); FAO-funded regional project “Support to the institutional strengthening of the implementation of the IGAD/CAADP Compact to promote private and public investments in agriculture (12 months; USD 356 000); and FAO-funded Sudan soil information system and digital soil mapping (24 months; USD 380 000).</i>				
SN	Track	Programme/Project Brief	Duration	Cost (USD)
1.1	Short-term project	Institutional strengthening of agricultural decision makers and support services to promote international best practice in research and extension, climate-smart agriculture and integrated food nutrition (with linkages to FAO global networks and programmes) – under reformed agriculture policies and strategies	18 months	500 000
1.2	Short-term project	Support to disaster risk reduction (DRR) and crisis management in the agriculture sector – resulting in a functioning multistakeholder platform for DRR and crisis management for agriculture, food security and nutrition-related subsectors	24 months	500 000
1.3	Long-term programme	Capacity development for evidence-based resilience and food security and nutrition policy and programmes – <i>up-scaling of current FSPS Programme</i>	60 months	27 800 000
1.4	Medium-term project	National forest resource assessment and monitoring – <i>capacity development of Forests National Corporation for data collection, analysis and dissemination</i>	36 months	3 200 000
1.5	Short-term project	Environment, forestry and climate change management capacity strengthening – including “National Action Plan for regional Great Green Wall, preparedness for a national REDD+ strategy, programming for Global Environment Fund (GEF) funding, and follow-up on FAO Committee on Forestry (COFO) “Multi-Year Programme”	18 months	500 000
1.6	Short-term project	Defining a role for private sector service providers to support smallholder farmers in a reformed agriculture sector – <i>including capacity development of the Union of Chambers of Agriculture and Production (of the Sudanese Businessmen and Employers’ Federation)</i>	12 months	156 000
1.7	Long-term programme <i>(of annual SRP funding)</i>	Coordination of the United Nations Food Security and Livelihood Cluster (Humanitarian Needs Overview and Strategic Response Plan), DFA/DDS’s Economic Recovery Pillar III, and contribution to a revised UNDAF	60 months (5 yrs x 12)	2 500 000

2. Enhancing Production, Productivity and Competitiveness of the Crops, Livestock and Forestry Subsectors and Agricultural Climate Change Adaptation				
<i>Ongoing and pipeline FAO projects: FAO-funded “Development of a quality seed production system and value addition in Sudan” (2014-2016; USD 370 000); Government of Italy-funded “Building household resilience through promoting adapted production technologies in livelihoods and NRM in Red Sea State” (USD 630 500); and “Peace and stability through responsible tenure governance in Darfur” (USD 7.6 million).</i>				
SN	Track	Programme/Project Brief	Duration	Cost (USD)
2.1	Short-term project	Climate change adaptation in key rainfed food crop, fodder crop and pasture varieties – <i>development of drought and heat-tolerant groundnut, legumes, maize, millet, sesame, sorghum, sunflower and nutritious grasses</i>	24 months	3 600 000
2.2	Medium-term project	Expansion of a quality seed production system (with value addition for smallholder farm and community-level seed multiplication) through PPPs	36 months	7 100 000
2.3	Long-term programme	Promoting climate-smart smallholder agricultural production ²⁵ and post-harvest management ²⁶ through improved adaptive research and participatory extension systems – <i>strengthened state and locality-level government and private agricultural extension services and implementation of farmer field school (FFS) and producer marketing group (PMG) programmes</i> “across ten states	60 months	29 000 000
2.4	Short-term project	Support to the private sector in the testing and verification of appropriate small-scale farm tools and machinery for rainfed agriculture (e.g. conservation agriculture, IPM and harvesting) through South-South Cooperation – <i>i.e. partnership(s) with equipment manufacturers in Brazil, India, China and/or South Africa</i>	24 months	500 000

²⁵ Climate-smart agriculture: water harvesting, on-farm water management, agroforestry, conservation agriculture, systematic rice intensification, integrated pest and disease management (IPM), soil fertility management, zero grazing/integrated livestock feeding, etc.

²⁶ Post-harvest management: household and community-based harvesting, collection, cleaning, grading, processing, packaging, storage, transportation, marketing, etc. of crop, animal and tree-based products and commodities

3. Natural Resource Management and Livelihood, Food Security and Nutrition Response, Protection and Recovery

Ongoing and pipeline FAO projects: DCPSF-funded “Increasing cooperation between conflicting communities through promoting dialogue and enhancing livelihoods and NRM in North and West Darfur States” (2009-2014; USD 2 million); CIDA-funded and FAO and UNIDO-implemented “IFSP in Kassala State” (2012-2016; USD 5.92 million [FAO component]); UK/DFID-funded and FAO, UNICEF and WFP-implemented “Joint resilience-building project in Kassala” (2014-2017; USD 5.8 million [FAO component]); FAO-funded “Technical assistance to support food security and livelihoods of the pastoralist groups in West Kordofan State (one year; USD 500 000); Government of Qatar-funded “Recovery of livelihoods of vulnerable pastoralist and agropastoralist households in the Darfur Region” (18 months; USD 2.3 million); Government of Italy-funded “Building household resilience through promoting adapted production technologies in livelihoods and NRM in Red Sea State” (12 months; USD 630 500); FAO-funded regional project “Support to the institutional strengthening of the implementation of the IGAD/CAADP Compact to promote private and public investments in agriculture (12 months; USD 356 000); Capacitation of freshwater aquaculture production for food security and rural development through enhanced tilapia seed and feed production and management (18 months; USD 422 000); and Peace and Stability through Responsible Tenure Governance in Darfur (36 months; USD 4.0 million).

SN	Track	Programme/Project Brief	Duration	Cost (USD)
3.1	Long-term programme	Recovery of livelihoods, food security and nutrition of vulnerable farming and agropastoralist communities in the Darfur Region through an increase in productivity and improved post-harvest management of crops, livestock, fish farming and forestry products for smallholders in target wadi catchment areas – <i>following participatory catchment planning, VGGT, FFS, community animal resources development (CARD), community-based forestry management and PMG approaches</i>	60 months	46 900 000
3.2	Long-term programme	Drought resilience and recovery of livelihoods, food security and nutrition of vulnerable pastoralist and agropastoralist households along migratory stock routes in Sudan – <i>including land-use planning, VGGT, upgrading of natural resources, improvement of livestock carrying capacities, capacity development of CARD services, and post-harvest management of animal products (through PMGs) components</i>	60 months	37 270 000
3.3	Long-term programme	Resilience building for malnourished rural families prone to extreme natural shocks (e.g. droughts, floods, pests and diseases) – in partnership with UNICEF and WFP across three states from each of “eastern”, “southern” and “western” Sudan “regions”	48 months	16 800 000
3.4	Medium-term project	Enhanced resilience for forest-dependent communities in the Gum Arabic Belt (<i>especially targeting women Gum Arabic producers and processors</i>) – in line with Sudan’s readiness for REDD+	48 months	6 200 000

4. National, Regional and International Control of Threats to Sudanese Food Chains

Ongoing FAO project: FAO-funded “Surveillance and diagnosis of foot and mouth disease” (2011-2014; USD 491 000).

SN	Track	Programme/Project Brief	Duration	Cost (USD)
4.1	Medium-term project	Development of a national TAD surveillance, monitoring, reporting, early warning and control system – focusing on 14 border states; and linked to FAO’s global Emergency Centre for Transboundary Animal Diseases (ECTAD) and a proposed regional programme for the Near East	48 months	14 900 000
4.2	Medium-term Project	Enhanced biosecurity, sanitary/phytosanitary control and early warning, and food quality and safety in Sudan	36 months	12 500 000

Table 3. Timelines for PoA Interventions

Intervention Area Programme/Project and Component	2015	2016	2017	2018	2019
1. Policy Development and Information Management					
1.1 Institutional strengthening of key actors in the agriculture sector					
1.2 Multistakeholder platform for DRR and crisis management					
1.3 Food security and nutrition policy and programmes*					
1.4 National forest resources assessment and monitoring					
1.5 Environment, forestry and climate change management capacity strengthening					
1.6 Role for private sector support to smallholder agriculture					
1.7 Food security, livelihoods and economic recovery coordination					
2. Crop Production and Agricultural Climate Change Adaptation (CCA)					
2.1 CCA in key rainfed food crop, fodder crop and pasture varieties					
2.2 Quality seed production system					
2.3 Climate-smart smallholder agricultural production through FFSs					
2.3.1 public-private participatory extension services**					
2.3.2 FFS programmes**					
2.4 Private sector support to smallholder agricultural mechanisation					
3. NRM and Livelihood, Food Security and Nutrition Response, Protection and Recovery					
3.1 Recovery of food security, nutrition and rural livelihoods in the Darfur Region ⁺					
3.1.1 catchment planning*					
3.1.2 VGGT and peacebuilding in catchment areas*					
3.1.3 agricultural production in catchment areas through FFSs and CARD services*					
3.1.4 forest management in catchment areas*					
3.2a Recovery of pastoralist livelihoods along stock routes of western Sudan					
3.2.1a VGGT, peace-building and natural resource management*					
3.2.2a animal health and production*					
3.2.3a establishment of pilot private smallholder and community ranches*					

Intervention Area Programme/Project and Component	2015	2016	2017	2018	2019
<i>Intervention Area 3 (cont'd)</i>					
3.2b Drought resilience and sustainable livelihoods of pastoralists in eastern Sudan ⁺					
3.2.1b natural resource management*					
3.2.2b livelihoods support*					
3.2.4b capacity development*					
3.3 Resilience building for malnourished rural families ⁺					
3.4 Enhanced resilience for forest-dependent communities in Gum Arabic Belt ⁺					
4. Control of Threats to Sudanese Food Chains					
4.1 National transboundary animal diseases surveillance and control system					
4.2 Biosecurity, sanitary/phytosanitary control and food quality and safety					

* Programmes/projects that could be implemented across a selected number of states if targeting and funding limits require

* Potential for implementation as discreet projects if targeting and funding limits require, but the respective programmes/projects would lose part of their multisectoral resilience focus

5.6 Cross-cutting Actions

There are four cross-cutting actions which would support the four PoA intervention areas and their 17 programmes/projects (Section 5.4), namely: (i) stakeholder capacity development; (ii) food-based nutrition; (iii) gender equality; and (iv) peace, stability building and voluntary guidelines for land tenure.

5.6.1 Stakeholder Capacity Development

In Sudan capacity development is a critical issue that has consistently emerged as a top priority in implementing agricultural development projects and programmes in Sudan effectively. The political and economic situation has resulted in capacity gaps of institutions and non-state actors, particularly in the field of food security and nutrition and CCA which results in the need to focus on capacity development interventions and to increasingly support stakeholders at state, locality and village levels.

In the past, development assistance focused mainly on the transfer of knowledge, resulting in the transfer of blueprint solutions from one region, country or focus group to another. This has sometimes contributed to the successful application of ready-made solutions, but not necessarily to strengthen the abilities of the national and local systems to analyse their situations and develop suitable solutions. Capacity development interventions have been identified as key activities for most programmes and projects proposed by the PoA for Sudan. FAO would therefore support stakeholders across all 17 programmes/projects according to the Organization's "**Capacity Development Framework**"²⁷. Under the Framework, FAO, in partnership with internationally and nationally accredited centres of learning and institution building, would jointly assess and analyse existing situations in terms of capacities and identify the appropriate types of intervention for fostering the development of the required capacities for individual programmes/projects of the PoA – according to the following dimensions:

Three-dimensional Approach: The new capacity development framework adopted by FAO and its international development partners involves more than just learning, training and knowledge, but a comprehensive three-dimensional approach. It is not enough to train individuals as even organizational capacities are needed to manage and sustain knowledge and change. In addition, issues related to the enabling environment are addressed, such as food security, resilience and seed policies, policy processes and the institutional setup for food security, livelihood resilience and seed systems. For instance, the capacity development approach adopted by the European Union-funded and FAO-implemented "FSPS Programme", comprehensively involves the individual, organizational and enabling environment dimensions, and aims to make real and sustainable change possible.

Country Leadership: National and local actors, both state and non-state, take a lead role in the process of enhancing their systems, structures and institutions. This increases the likelihood that at the end of the programmes/projects, targeted stakeholders will be in a position to sustain the intended changes. Country leadership and ownership is best enhanced by ensuring that stakeholders from key institutions (i.e. state and non-state, communities, farmer organizations, etc.) participate in the planning, implementation and monitoring of projects and programmes in their respective states, localities and villages.

Context Specificity: It is also important to remember that there is no easy "one-size-fits-all" solution for capacity development. Interventions to strengthen the capacity of individuals, organizations and enabling environments need to be tailored to the context of each circumstance (e.g. agro-ecological/livelihood zones, subsector requirements and service delivery mechanisms) in question. Context is at the heart of any capacity action and captured in institutional assessment processes to be followed as a basis for designing capacity development interventions.

²⁷ FAO; Corporate Strategy for Capacity Development; 2012

Beyond Technical Capacities: The new capacity development approaches address, not only technical capacities, but also “functional” capacities, which are those needed to sustain change. Of particular note, functional capacities include the capacities to share knowledge and to create partnerships (e.g. food security information systems, FFSs, CARD services and seed supply systems).

With respect to strengthening Sudan’s resilience, functional capacities are particularly important in developing the capacities of households, communities and institutions to bounce back after a shock, to adapt to a changing environment, and to transform an enabling institutional environment. As another example, for intervention area 2 of the PoA, research institutions, extensions services (both public and private) and producer organizations need to be able to collaborate closely and share information to ensure that technologies and practices are reaching the rural communities.

Sustainability Mechanism: The new capacity development approach addresses the chronic issue of sustainability and ensures that the effects of interventions are sustained over time. Sustainability is addressed by an ongoing support to national, state and local-level institutions, as well as other stakeholders such as non-state actors and private sector organizations (such as universities, research institutes, NGOs, producers’ organizations and chambers of commerce), and by prioritizing inclusive processes (e.g. FFSs, CARD services and PPPs).

Sustainability will also be addressed with the strengthening of academic and training institutions so that training courses in the areas of the four PoA intervention areas can ultimately be provided by Sudanese institutions. Lastly, by promoting the capacities to work in PPPs, the likelihood of interventions lasting over time will increase.

5.6.2 Food-based Nutrition

As mentioned earlier, Sudan is severely impacted by natural hazards, economic crises and high food prices that restrict livelihood opportunities and decrease rural households’ purchasing power. Particularly hard hit are the 2.9 million IDPs, as well as vulnerable resident communities in the Darfur Region, border-states with South Sudan and eastern states of Sudan, where malnutrition levels are alarmingly high, especially among women and children.

Addressing malnutrition in rural areas of Sudan will require complementary multisectoral strategies and approaches that respond both to the short-term immediate needs and the longer development challenges. The agriculture sector plays an important role in improving people’s nutrition by increased availability, affordability and consumption of diversified diets and safe and nutritious foods, aligned with dietary recommendations and environmental sustainability. Through implementation of the PoA, FAO Sudan will aim to strengthen the impact on food nutrition across all relevant programmes and projects through:

- monitoring and evaluation relevant indicators, tracking and mitigating potential harm;
- base goals and activities in the context and causes of malnutrition at the local level;
- target the vulnerable and improve equity through participation, access to resources and decent employment;
- empower rural women (through participation in women FFSs and CARD services);
- increase production and reduce post-harvest losses of nutrient-rich foods (through, e.g., FFSs);
- facilitate diversification of production (through, e.g., FFSs);
- incorporate nutrition promotion and education around food and food systems that build on existing local knowledge, attitudes and practices (including FFSs and CARD services);
- improve processing to maintain nutritional value, increase shelf-life, and enhance food safety (e.g. through women FFSs and CARD services);
- expand markets, particularly for nutrient-rich foods and enhance market access (e.g. through capacity development of producer organizations);
- collaborate with other sectors (i.e. health, environment, social protection, labour, water and sanitation, education and energy); and

- maintain and improve the natural resource base (through community-based NRM).

Sudan is currently implementing an integrated multisectoral approach involving four United Nations agencies; namely, FAO, UNICEF, WFP and WHO. This approach aims to respond to the nutrition crisis in Sudan by providing comprehensive lifesaving and recovery nutrition services for populations affected by acute malnutrition. There are two current examples of this approach that could be up-scaled under the PoA for Sudan, namely:

- i. The partnerships between FAO, UNICEF and WFP, presenting a coordinated, holistic approach to addressing malnutrition and food insecurity in Kassala state, eastern Sudan. The project will build on the comparative advantages of the three agencies in order to implement a synergistic set of activities that will improve and strengthen communal and household-level resilience in targeted marginalized communities, so that they are better able to withstand recurrent and predictable shocks. This project is designed to reduce the levels of malnutrition and improve food security in targeted communities. Reduction of malnutrition and improvement of their public health indicators will ensure that the populations will be in a better overall state of health and nutrition to be able to adequately withstand future shocks, whilst improved livelihood support will focus on ensuring that communities will have a sustained surplus of food and income and access to natural resources, which will mitigate the impact of recurring shocks.
- ii. The Second International Conference on Nutrition (ICN2) is an inclusive intergovernmental meeting jointly organized by FAO and WHO that took place in Rome in November 2014. The two main outcome documents of the conference are: (a) the Rome Declaration on Nutrition: a political commitment document; and (b) a Framework for Action: a technical guide for implementation. FAO Sudan was very engaged in this process, including the preparation of the “ICN2 Report for Sudan”.
- iii. Collaboration and coordination to scale-up nutrition, for example:
 - In September 2013, six United Nations agencies, including FAO, IFAD, UNFPA, UNICEF, WFP and WHO joined together in Khartoum to address malnutrition in Sudan by signing a memorandum of understanding that set out a framework for achieving the overall goals of collaboration towards tackling malnutrition in the country by scaling-up nutrition interventions and reinforcing joint efforts to strengthen, coordinate and plan capacity building of national and subnational government actions.
 - Collaboration and coordination with other sectors (e.g. health, women and children's affairs, local government, environment, social protection, labour, water and sanitation, education and energy) programmes (National Nutrition Strategy – NNS) and partners (i.e. government, United Nations agencies, civil society and the private sector) with common objectives and joint strategies is encouraged in order to be mutually supportive and work toward strategic coherence in policy and programming for the government while simultaneously addressing the multiple underlying causes of malnutrition. As a technical agency, FAO will serve as the voice for promoting nutrition-sensitive programmes at the global, regional and national levels.

5.6.3 Gender Equality

It is essential to increase the importance given to gender-based analysis. In particular, it is necessary to identify specific needs and capacities with regard to men, women, boys and girls and the elderly and/or disabled, in order to implement targeted action and strengthen their livelihood resilience in crisis situations. Women play a fundamental role at all levels of Sudan's food and nutrition systems. They are often responsible for managing the family plot or small homestead gardens and are very much involved in developing and cultivating larger household plots. In Sudan, women are more vulnerable in the event of crises because of their more limited access to production inputs, especially to credit and inputs (i.e. seeds, fertilizers, SPS products, etc.), as well as land and water. Special attention will be given in the PoA for Sudan to gender division of labour and to address women's burden identifying labour-saving technologies and income-generating activities. As a result, and in line with an approach which seeks to integrate nutritional support and increase resilience, FAO aims

to give priority to women in its humanitarian, recovery and development interventions in Sudan over the next five years.

The gender issues among host communities, IDPs, refugees and returnees should also be acknowledged given that a considerable number are from female-headed households, i.e. widows, women abandoned by their husbands and women whose husbands are in detention. These households are particularly vulnerable. In addition, the gender relations and roles within the IDP, refugee and returnee families are changing, which makes it possible to challenge some traditional attitudes. Careful gender analysis is needed throughout the implementation of the PoA to increase women's access to resources and services.

5.6.4 Peace, Stability Building and Voluntary Guidelines for Land Tenure

Peace does not require the resolution of the many conflicts which divide nations and communities. Instead, peace merely requires the parties to recognize that violent confrontations, and threats of violent confrontations, are an expensive, dangerous and ineffective way of pursuing one's interests. It is believed that other strategies involving nonviolent force, political and legal action, exchange and the integrative system are far superior. The concept of "security first" pursued by most conflict-prone nations forget to put a balance between building security apparatus and building effective institutions of just governance and implementing policies for economic, social and political development. Security alone cannot succeed in achieving the twin outcomes of peace and stability and state legitimacy before and after conflict.

The process of achieving sustainable peace and stability in Sudan depends on institutional choices about how to incorporate different actors into transitional and more permanent governance processes within a broad context of different factors and dynamics. Security, including the issues of disarmament, demobilization and re-integration of rebel combatants and, linked to this, security sector reform, a functioning system of law and order, including questions of redress for past crimes, refugees and IDP return and reintegration, a sound economic and fiscal policy, education reform and the incorporation of local and civil society actors all form part of peacebuilding and stability processes and have an effect on both the nature of the state stability and the sustainability of peace within.

The challenges facing Sudan in achieving peace and stability are basically a lack of sustainable peace within itself in the Darfur and Eastern Regions and South Kordofan and Blue Nile States partially influenced by regional and global interests and exacerbated by United States of America-led trade sanctions, high inflation, high external debt and decreasing foreign currency reserves. At a time of global economic and financial crisis and a major food crisis and famine, especially in East Africa, Sudan's economic difficulties, compounded by its political and security problems, a humanitarian crisis for which neither the country itself nor its international and regional partners are particularly well prepared is in the making.

Irrespective of all these challenges, over the past decades, Sudan has continuously responded to resolving conflicts within and with its neighbours through different peace initiatives that led to the secession of South Sudan and signing of the peace agreement between the Government of Sudan and some of the Darfur rebel groups. Sudan has also spearheaded institutional building in conflict-prone areas with level of autonomy and development initiatives intended to stabilize the conflict-affected states and communities. However, such efforts have been continuously challenged by the following:

- A lack of strategic vision to develop programmes that support effective peace and stability, durable and equitable economic and social investment among states and communities.
- Limited learning from past lessons and areas requiring adaptation and/or expansion, and proposed innovative approaches for future action across states and communities.
- Limited efforts to identify institutional challenges and propose options for mutual success that leverage mutual efforts, integrate emerging practices and technologies that can be accomplished within the current resource-constrained environments.

- Inability to address how cross-cutting issues among states, communities and groups can be addressed by state institutions more effectively.
- Limited resources and inability to effectively integrate efforts to shape conditions and respond to emerging security, economic, social and political challenges.

As access to land is often related to social identity, the land rights of certain social groups may be contested in relation to national and ethnic identity, providing a breeding ground for the potential political exploitation of tension. Tenure issues are essentially political and the object of political discourse and tenure relationships are imbedded in and affected by inter-ethnic relationships. Tenure issues are therefore liable to be politicized and political issues are liable to be ethicized. Therefore, through the use of VGGT voluntary processes, practices and principles that neither establish legally binding obligations nor replace existing laws, treaties and agreements inclusively address land-related conflicts in Sudan.

FAO is further assisting the Government of Sudan to make peace through community-based trust-building initiatives through the lens of livelihoods protection, policy and institutional reform, and building and maintaining regional and international partnerships on food security and nutrition that would potentially lead to peace and stability and meet the basic food and nutrition demands of its citizens. Across all intervention areas of the CPF/PoA for Sudan, FAO in partnership with United Nations agencies and CSOs would focus on increasing public awareness, advocacy and services and create employment opportunities to protect and diversify livelihoods and increase rural incomes that are essential to prevent out-migration and further conflict. In this context, the DCPSF-funded and FAO-implemented project “Increasing cooperation between conflicting communities through promoting dialogue and enhancing livelihoods and NRM in North and West Darfur States” is an ongoing joint peacebuilding initiative that promotes VGGT by different land users and employment creation for IDPs and youth most vulnerable or at risk of return to violence to become drivers of innovation and economic recovery and contributors to peaceful coexistence – that would be up-scaled under the PoA as a cross-cutting parameter of all resilience-building projects and programmes.

5.7 Plan of Action Budget

The total cost of the “CPF Plan of Action for Sudan” is estimated at **USD 210.37 million** over a period of one to five years. A breakdown of cost estimates by intervention areas, tracks/timeframes and annual allocations are provided in Tables 4, 5 and 6, respectively. Further details of programme and project budgets are provided in Annex 4.

**Table 4. Plan of Action:
Cost Estimate – Intervention Areas**

Intervention Area	USD
1. Policy development and information management	35 036 000
2. Crop production and agricultural CCA	40 160 000
3. NRM and rural livelihoods	107 770 000
4. Control of threats to food chains	27 400 000
Total	210 366 000

**Table 5. Plan of Action
Cost Estimate – Tracks**

Track	USD
Short-term	5 636 000
Medium-term	22 800 000
Long-term	181 930 000
Total	210 366 000

Table 6. Plan of Action: Estimated Annual Intervention Area Costs

Intervention Area	Annual Intervention Area Cost (USD)					
	2015	2016	2017	2018	2019	Total
1. Policy dev and information mgmt	7 911 000	7 720 000	7 285 000	6 060 000	6 060 000	35 036 000
2. Crop production and agric CCA	4 300 000	12 050 000	10 210 000	7 400 000	6 200 000	40 160 000
3. NRM and rural livelihoods	10 035 000	28 715 000	27 175 000	24 385 000	17 460 000	107 770 000
4. Control of threats to food chains	1 860 000	7 880 000	7 890 000	7 900 000	1 870 000	27 400 000
Total	24 106 000	56 365 000	52 560 000	45 745 000	31 500 000	210 366 000

6. THE WAY FORWARD



6. THE WAY FORWARD

6.1 Programme Coordination

FAO will build on the Organization's continued food and nutrition security, livelihood protection and recovery, agricultural development and NRM work in Sudan and the Near East and North Africa Region and support MoAI, MoLFR, MoEFPD, MoWE and MoH policy development, information management, CCA, post-harvest management and food safety, TADs control and resilience building, as well as stakeholder capacity development by assisting the CPF Steering Committee to: (i) finalize and endorse the CPF/PoA for Sudan in a timely manner (and, in the longer term, NAIP); (ii) establish a Programme Coordination Unit (PCU) to efficiently and effectively manage implementation of government and donor-funded programmes and projects targeting the agriculture sector through the PoA (and NAIP); and (iii) secure resources with development partners for implementation of such projects and programmes (again, including those of the PoA and NAIP). In this regard, implementation of the PoA and PCU operations (and later financing of NAIP) would be in accordance with the policies and regulatory frameworks developed through PoA support to the current ARP-II and a future ARP-III, the current DDS, the 2015 Sudan SRP and a revised UNDAF.

Considering the scope and magnitude of the PoA that addresses a wide range of priorities related to the agriculture sector in Sudan, including policy development, crops, livestock, fisheries and forestry production, post-harvest management, NRM, resilience building and stakeholder capacity development, a strong mechanism built in the PCU would ensure synergy and efficiency in the implementation, coordination and monitoring of the respective projects and programmes. Establishment of the PCU within the Federal MoAI in Khartoum²⁸ is therefore a vital element of FAO's future technical assistance to the Government of Sudan for ensuring the successful implementation of the integrated and multidisciplinary PoA (as well as other agricultural investment programmes and projects under NAIP) over the coming five years.

The overall aim of the PCU is to assist MoAI, MoLFR, MoEFPD, MoWE, MoH and their respective corporations to ensure that agricultural technical assistance and investment projects in Sudan are well coordinated, their integration with government, private sector, NGO and CSO stakeholders is improved and all food and agricultural development and natural resources' interventions are integrated under resilient and sustainable approaches, implemented smoothly and objectives are met. To be more precise, terms of reference for the PCU would include: (i) representation of and coordination with the respective ministries, development partners, private sector, NGOs, CSOs and FAO are well established; (ii) formulation of projects is timely executed; (iii) project activities are smoothly implemented; (iv) cross-cutting actions are well coordinated; (v) technical assistance is appropriate, efficient and effective, and South-South Cooperation is promoted; (vi) technical backstopping missions are properly and timely executed; (vii) project reporting is timely executed; and (viii) monitoring and evaluation of project implementation is well executed and followed up.

6.2 Funding Modality

As mentioned earlier, the CPF/PoA for Sudan (and forthcoming NAIP) represent a multidonor framework composed of separate integrated programmes and projects "under one umbrella", giving the opportunity for the Government of Sudan and United Nations agencies to prioritize food and agriculture-based livelihood protection, recovery actions and development interventions and potential resource partners to earmark contributions to their own areas of interest and/or add value to their ongoing investments in crops, livestock, fisheries and forestry development and natural resource management (Section 6.3). This would make possible coherent management of an array of social risk management, social protection, poverty reduction, equity development and safety nets insurance efforts with various immediate, near and short-term planning and project cycles to address various

²⁸ One possible host for the PCU could be FSTS, hosted by MoAI and already supported by FAO

underlying themes and issues relating to policy processes, technology, environment, and production and investments to institutions, services, infrastructure, value chains and collective actions.

FAO will work with the Government of Sudan to finalize and endorse the multidonor PoA which is expected to be presented during donor meetings scheduled for Khartoum in early 2015 (in line with the roadmap for NAIP). In the meantime, FAO would endeavour to assist MoAI in the establishment of the PCU and to strengthen their association with relevant United Nations agencies and development partners in both Sudan and the Near East and North Africa Region as a whole in order to mobilize further resources for implementation of programmes and projects under the PoA – as well as FAO's three Regional Initiatives (Section 6.3). It is anticipated that initial funding for the PCU would be provided through financing of programme or projects under intervention area 1, “Policy Development and Information Management”, but in particular the proposed Programme 1.3 Capacity Development for Evidence-based Resilience and Food Security and Nutrition Policy and Programmes”. In the longer term, the PCU could be funded from a technical assistance project in support of NAIP. FAO has recently established a similar modality for its technical assistance to agricultural investments in Bangladesh, where the World Bank is the major development partner.

6.3 Strategic Partnerships

It is acknowledged by all actors that no sectoral intervention alone would build resilience for sustainable development which could only be achieved through complementary actions in relation with the respective mandates and comparative advantages that each actor brings in addressing food insecurity, malnutrition, poverty and land degradation in Sudan from different angles. In this regard, it is worth noting that the CPF/PoA for Sudan, while directly targeting resource-poor men and women smallholder farmers, pastoralists and tree-dependent people with food security and nutrition and income-generation interventions, would also be supporting the Government of Sudan to recover its economy and stimulate agricultural growth – both through capacity development initiatives requiring the support of all partners listed below.

It is anticipated that short-term projects focusing on agricultural policy development and research would be financially supported by FAO and bilateral donors with specific interests in specialized fields, short- and medium-term projects and focusing on institutional strengthening by bilateral donors with interests in agricultural and rural services, and long-term technical assistance programmes by larger bilateral and multilateral donors and international financing institutions with interest in multisectoral resilience, NRM and agricultural growth – all in partnership with the private sector, NGOs and CSOs. The complementarities of these actions, in properly and comprehensively addressing the needs of both resource-poor men and women smallholder farmers, pastoralists and tree-dependent people with those of less-affected but equally vulnerable rural populations, is essential to reduce competition over natural and economic resources and maintain social cohesion. In this context, FAO, through the PoA (and NAIP), would facilitate partnerships for food security, nutrition and agricultural development between:

- government agencies (e.g. Higher National Councils, MoAI, MoLFR, MoEFPD, MoWE and MoH, and their respective corporations and State Ministries of Agriculture and Animal Resources, and DRA) and local authorities;
- civil society (e.g. academic and research institutions, NGOs, CBOs and men and women farmers'/pastoralists' unions and cooperatives);
- the private sector (i.e. consultants, consultancy firms and veterinary doctors and input suppliers, traders, food processors, wholesalers and retailers, exporters, etc. of food value chains);
- South-South Cooperation (i.e. deployment of short- and long-term specialists from countries such as Brazil, China, Egypt, India and South Africa to facilitate the exchange and uptake of development solutions and promote platforms for knowledge networking to develop national and institutional capacities); and
- development partners (i.e. international financing institutions, donors and agriculture and rural development agencies/implementing partners, some of whom are listed below).

In line with the Government's and United Nations agricultural and rural development frameworks and strategies for Sudan, FAO would ensure that strategic partnerships and alliances are created for each of the aforementioned proposed projects and programmes at local, national, regional and global levels in order to share the burden of and encompass the intervention of the widest possible partnerships and knowledge sharing for strengthening the resilience of those most vulnerable rural populations in the country affected by food insecurity, malnutrition, poverty and climate change. The PoA for Sudan, in combination with NAIP, would represent essential agricultural, food, nutrition and natural resources components to the contributions of all partners supporting resilient and sustainable rural livelihoods in the country. Potential partnerships include the following:

AfDB has recently funded a USD 30 million project, “Drought resilience and sustainable livelihoods programme in the Horn of Africa (DRSLP II) - Sudan component” for implementation by IGAD. FAO is the implementing partner for agricultural research under AfDB-supported Sudan's Strategic Plan for Agriculture and Rural Statistics (SPARS). This initiative supports reliable, accurate and readily available data on agriculture, which is key in influencing private sector investment in the sector.

Governments of Australia and Belgium –*both recently funded FAO to provide emergency assistance (agriculture and livestock) to vulnerable households in Greater Darfur.*

Government of Canada –*recently supported FAO's integrated food security project (crops and livestock production, post-harvest management and empowerment of men and women farmers' groups), jointly with UNIDO in Kassala.*

DRA (and DCPSF) –*currently supporting FAO in VGGT and peacebuilding and water harvesting projects* – for inclusion (in DDS) and funding of “capacity development” subprogrammes and model investment projects in “wadi catchment development”, “migratory stock route services” and post-harvest management/value chain development” under FAO’s proposed “Programme for Agricultural Recovery, Reconstruction and Development in the Darfur Region (2013-2019)”.

EU –*currently supporting FAO food security policy and capacity development and the United Nations Environment Programme (UNEP) and United Nations Office for Project Services (UNOPS) watershed management programmes* – has confirmed that Sudan would benefit from the forthcoming FAO-implemented Information for Food and Nutrition Security and Resilience for Decision Making (INFORMED) programmes, as well as the next (11th) EDF (2014-2020); the latter would probably benefit from up-scaling of ongoing EU-funded initiatives such as the FAO-implemented “FSPS Programme” and UNEP and UNOPS-implemented Darfur “wadi catchment management projects”.

Italian Development Cooperation –*currently supporting health-related projects in the Eastern Region (including water harvesting, improved seeds and new techniques)* – indicated interest in partnering with FAO in a project, “Building household resilience through promoting adapted production technologies in livelihoods and natural resources management in Tokar and Haya localities in Red Sea State”.

IFAD –*currently supporting area-based integrated rural development, rural access, traditional rainfed producers, seed development and livestock production and marketing.*

IGAD: FAO is currently supporting the institutional strengthening of the implementation of the IGAD/CAADP Compact to promote private and public investments in agriculture; and FAO and IGAD are currently preparing “IGAD-FAO Partnership Programme on Resilience” whose conceptualization is embedded in IDRSI, which provides a common framework for government, humanitarian and development partners to build the resilience of populations frequently affected by drought.

United Kingdom Department for International Development (UK/DFID) –*currently supporting the joint FAO/UNICEF/WFP resilience building and nutrition project* – has indicated

that the Department would continue supporting similar household-based resilience-building projects in Sudan but also focus on private sector economic development over the coming years – adding that the smallholder agriculture subsector would be a prime “entry point”.

UNICEF welcomed FAO’s partnership in the UK/DFID-funded “Joint resilience-building project in Kassala” and suggested that potential states for expanding the joint FAO/UNICEF/WFP approach include the Blue Nile, Red Sea, West Darfur and West Kordofan, where UNICEF has appropriate field teams already on the ground.

United Nations Office for the Coordination of Humanitarian Affairs (OCHA) facilitates the Sudan Humanitarian Work Plan (HWP) as a key planning and resource mobilization tool for the humanitarian community and is *currently supporting FAO life-saving food security, nutrition and livelihood protection projects through its Central Emergency Response Fund (CERF) and Sudan Common Humanitarian Fund (CHF).*

USAID (and its **Office for United States Foreign Disaster Assistance [OFDA]**) indicated potential in partnering with FAO in support of initiatives under CAADP-Sudan Compact, COMESA and African Union International Bureau for Animal Resources (AU-IBAR) and resilience building in the Darfur Region, including VGGT and household and community-based post-harvest management/value chain development.

The World Bank is planning a return to supporting the productive sectors of Sudan in 2015 and is seeking “entry points” for grant funding in the agriculture sector, including sector reviews emanating from the forthcoming Comprehensive Agricultural Census and recommendations of NAIP.

WFP and FAO co-lead the FSL Sector in Sudan. They will continue to support the humanitarian coordination role related to food and nonfood asset activities, as developed and agreed under the 2015 SRP and HNO.

WHO and FAO jointly organized the global ICN2 conference in Rome during November 2014 (Section 5.6.2) – with implications for capacity development in food-based nutrition for Sudan. WHO has also shown a keen interest in partnering with FAO on any future “food safety” projects in Sudan given recent success with the joint “Mycotoxin in sorghum project”.

**IGAD'S INITIATIVES TO END DROUGHT EMERGENCIES IN THE HORN OF AFRICA
SUDAN COUNTRY PROGRAMMING PAPER
SUMMARY OF THE RESULTS FRAMEWORK**

Component 1. Natural Resource Management

Expected Outcome 1. Access to natural resources secured and sustainably managed for drought-prone communities.

Subcomponent 1.1 Water Resources Development

Intermediate Outcome 1.1 Increased availability and equitable access to safe water from sustainably managed resources for livestock and crop production.

Priority interventions:

- 1.1.1 Investment in small scale water storage and other related infrastructures such as small- to medium-size dams, water-harvesting systems, boreholes, subsurface and sand dams.
- 1.1.2 Establishment of water monitoring systems in catchment areas to monitor ground and surface water potential for better water-harvesting planning.
- 1.1.3 Increase investment in development of irrigated areas in drought-prone regions and states.
- 1.1.4 Rehabilitation and upgrading of existing irrigation schemes and emergency water supply systems.
- 1.1.5 Protection of water reservoirs and conservation of water catchment areas.
- 1.1.6 Increase investment in development of sanitation and hygiene infrastructures in drought prone areas and states.
- 1.1.7 Rehabilitation and upgrading of existing sanitation and hygiene infrastructures and emergency sanitation systems.

Subcomponent 1.2 Pasture and Land Development

Intermediate Outcome 1.2 Pasture/rangelands under sustainable management are increased.

Priority interventions:

- 1.2.1 Rehabilitation and maintenance of pasture in the various ecological zones and adoption of rational use to ensure sustainability.
- 1.2.2 Ensure the effective role of voluntary and public organizations in pastoral resources management.
- 1.2.3 Promotion of appropriate sustainable communal rangeland management practices and technologies.
- 1.2.4 Land-use planning to guide the investment opportunities in the pastoral subsector.
- 1.2.5 Development of rangeland monitoring and evaluation system and network in drought-prone areas.
- 1.2.6 Establishment of fire-lines for protection of natural grazing areas.

Subcomponent 1.3 Securing Access to Natural Resources

Intermediate Outcome 1.3 Access to sustainably managed natural resources is enhanced.

Priority interventions:

- 1.3.1 Establishment of community forests.
- 1.3.2 Establishment of soil and water conservation structures.
- 1.3.3 Strengthen local Government capacity for legislation of livestock routes.
- 1.3.4 Provision of integrated services along the routes.

Subcomponent 1.4 Environmental Management (including Renewable Energy and Biodiversity)

Intermediate Outcome 1.4 The adoption of renewable energy technologies is prioritized and significant reduction in the rate of biodiversity loss is achieved by the country.

Priority interventions:

- 1.4.1 Conservation of local species of dryland plant species, and ecosystem conservation in potential areas.
- 1.4.2 Effective control and management of charcoal production and marketing.
- 1.4.3 Promote investors to invest in energy supply for rural areas and pastoral communities.
- 1.4.4 Support the capacities of civil societies and organizations to enable communities' use of alternative sources and methods to access safe energy and technologies.
- 1.4.5 Promotion and bulking of drought-tolerant grasses, trees, shrubs and breeds/species.

Component 2. Market Access and Trade

Expected Outcome 2. Access to market and trade improved.

Subcomponent 2.1 Transport and Market Development

Intermediate Outcome 2.1 Access to markets and trade by drought-prone communities is increased.

Priority interventions:

- 2.1.1 Developing feeder roads to improve access to livestock and other goods markets.
- 2.1.2 Construction of quarantine stations.
- 2.1.3 Establishment and improvement of stock routes, supported by integrated services centres/outposts.
- 2.1.4 Construction of slaughterhouses, abattoirs, livestock-based product processing units and markets.
- 2.1.5 Development and implementation of a branding programme for identification and traceability of livestock in the country.
- 2.1.6 Formulation of appropriate policies and legislations that will enhance community participation in marketing and export.

Subcomponent 2.2 Securing Livestock Mobility

Intermediate Outcome 2.2 Mobility of pastoral communities is secured in the countries. Access to grazing and water resources is increased.

Priority interventions:

- 2.2.1 Secure availability of integrated services of water, fodder and pasture along stock routes to markets, including cross-border routes.
- 2.2.2 Encouragement of community animal health workers and public-private partnership (PPP) for provision of veterinary services and essential livestock drugs.

Subcomponent 2.3 Securing Financial Transactions

Intermediate Outcome 2.3 Effective regulatory frameworks for national and international financial transactions are developed and operational.

Priority interventions:

- 2.3.1 Promotion of rural finance and savings services/schemes (including for women and youth) to support rural and pastoral communities in drought-prone areas.
- 2.3.2 Establishment of microfinance institutions in rural localities of the drought-prone areas.

Subcomponent 2.4 Transboundary Disease and Sanitary and Phytosanitary (SPS) Measures and Standards

Intermediate Outcome 2.4 Legal frameworks, procedures and facilities to support transboundary disease prevention and management are developed in the country.

Priority interventions:

- 2.4.1 Development, rehabilitation and sustainable management of export quarantine centres.
- 2.4.2 Establish and maintain quarantine infrastructure throughout the commercial livestock routes with facilities for pasture, water, treatment crash, tick control, a laboratory for disease diagnosis and office.
- 2.4.3 Improve food safety (SPS standards).

Component 3. Livelihoods Support

Expected Outcome 3. Adaptive capacities of drought-prone communities are increased.

Subcomponent 3.1 Livestock Production and Health

Intermediate Outcome 3.1 Livestock production and productivity are increased.

Priority interventions:

- 3.1.1 Strengthen institutional frameworks to secure access to land and water for pastoralists (including for women and youth).
- 3.1.2 Support the decentralized and PPP for delivery of veterinary services.
- 3.1.3 Strengthening diagnostic capacities for major contagious and epidemic diseases such as anthrax, foot-and-mouth disease, contagious bovine pleural pneumonia and haemorrhagic septicaemia.
- 3.1.4 Strengthening institutional capacity to encourage an entrepreneurial approach to improve pastoral livestock production.

Subcomponent 3.2 Agricultural Production and Productivity

Intermediate Outcome 3.2 Crop production and productivity are increased.

Priority interventions:

- 3.2.1 Support the production of drought-resistant seeds and short-maturing varieties of main food staple crops.
- 3.2.2 Support the establishment of junior farmer field and life schools to train youth farmers in agrobusiness, farm management skills, rural marketing, post-harvest loss minimization methods, etc.

Subcomponent 3.3 Fisheries Development

Intermediate Outcome 3.3 Fishery production is increased.

Priority interventions:

- 3.3.1 Provision of fishing equipment to local communities.
- 3.3.2 Promotion of fish farming and fish pond technology.
- 3.3.3 Review and update the current legislation to set standards and quality control.
- 3.3.4 Upgrade and organize the marketing system along the value chain.

Subcomponent 3.4 Income Diversification

Intermediate Outcome 3.4 Diversification of household income sources is promoted for enhancing resilience.

Priority interventions:

- 3.4.1 Scaling up of successful farm/small-scale technologies, such as processing, storage facilities and post-harvest conservation to reduce losses and ensure good quality of products.

- 3.4.2 Identify and establish rural infrastructure needed for the development of the animal and plant products of economic value.
- 3.4.3 Establish processing, value addition and marketing systems for some of the dryland products of economic value.
- 3.4.4 Develop best practices for the production, post-harvest handling, processing and marketing of dryland products to improve quality and regular supplies.

Subcomponent 3.5 Productive and Social Safety Nets

Intermediate Outcome 3.5 Dependency on safety net programmes is reduced.

Priority interventions:

- 3.5.1 Support for the establishment of social development funds through cost-sharing basis.
- 3.5.2 Promotion and establishment of cooperative societies and producers' associations among rural communities, including the pastoral and agropastoral groups.
- 3.5.3 Set up of public employment programmes, with special attention to women and youth, to build and maintain critical infrastructure.

Subcomponent 3.6 Access to Basic Social Services

Intermediate Outcome 3.6 Access to basic social services increased.

Priority interventions:

- 3.6.1 Develop and scale up the mobile healthcare and education facilities.
- 3.6.2 Support the development of basic road networks and other social services in the drought-prone areas.
- 3.6.3 Expand social and people participation for the provision of health, education and drinking water services and support and governance systems.

Component 4. Pastoral Disaster Risk Management

Expected Outcome 4. Enhanced drought preparedness, prevention and management.

Subcomponent 4.1 Early Warning/Response System

Intermediate Outcome 4.1 Timely response to early warning information is operated.

Priority interventions:

- 4.1.1 Strengthen early warning system capabilities of the meteorology authority through technical and financial support from both the government and donor community.
- 4.1.2 Strengthen the state institutional capacity to keep records for informing future decision making for the better management of disasters.
- 4.1.3 Strengthen the capacity of farmers to benefit from early warning information.
- 4.1.4 Sourcing for disaster risk reduction/mitigation investments.
- 4.1.5 Enhancement of traditional coping systems.

Subcomponent 4.2 Climate Monitoring and Climate Change Adaptation

Intermediate Outcome 4.2 Reliable climate outlook reports available and shared; climate change adaptation policies and interventions are incorporated into the national development strategic plan and budget.

Priority interventions:

- 4.2.1 Strengthening weather monitoring systems at locality, states, national and regional levels.
- 4.2.2 Promote local knowledge and skills on climate change and adaptation mechanisms.

Component 5. Research and Knowledge Management

Expected Outcome 5. Improved technologies are generated, promoted and successfully adapted for pastoral resilience.

Subcomponent 5.1 Support to Adaptive Research

Intermediate Outcome 5.1 An enabling environment for adaptive research is in place in the country.

Priority interventions:

- 5.1.1 Support to adaptive research on rangeland and pasture improvement, drought-tolerant crops and production systems.
- 5.1.2 Support to agricultural technology transfer and extension services network.

Subcomponent 5.2 Advisory and Extension System

Intermediate Outcome 5.2 Appropriate advisory and extension services are available and accessible by drought-prone communities.

Priority intervention:

- 5.2.1 Building the capacity of CBOs and local NGOs to improve their capability to implement rural development programmes in the drought-prone areas in the country.

Subcomponent 5.3 Knowledge Management and Communication

Intermediate Outcome 5.3 Increased access to information and dissemination of knowledge contributes to enhanced community resilience.

Priority intervention:

- 5.3.1 Strengthen capacity of rural extension staff and other staff working with communities, particularly on planning, soil and water conservation, land utilization and management, NRM, moisture conservation and agroforestry, range management, animal husbandry and improved farming methods adaptable to semi-arid areas.

Component 6. Conflict Resolution and Peacebuilding

Expected Outcome 6. Effective response to sources of conflict to enhance peace and stability for development are in place.

Subcomponent 6.1 Conflict resolution

Intermediate Outcome 6.1 Effective mechanisms for conflict prevention and resolution are in place.

Priority interventions:

- 6.1.1 Capacity building of relevant technical institutions.
- 6.1.2 Conduct and develop training manuals to empower communities to access and use livestock market information systems.
- 6.1.3 Institutional capacity building and training of communities on PPP models and encourage an entrepreneurial approach in support to improve pastoral livestock production and ensure sustainable access to basic services.

Subcomponent 6.2 Peacebuilding

Intermediate Outcome 6.2 The country is committed to maintaining peace and stability.

Priority interventions:

- 6.2.1 Develop institutional capacities to generate knowledge from research and extension.
- 6.2.2 Training of staff on dissemination tools and mechanisms to strengthen information access and management.
- 6.2.3 Contribute to and help in facilitating peacebuilding and conflict management and mitigation using appropriate civil societies organizations, NGOs, national and regional institutions.

**DARFUR DEVELOPMENT STRATEGY (DDS) PIILLARS:
AGRICULTURE-RELATED OBJECTIVES AND KEY OUTPUTS**

Pillar and Objective	Key Agriculture-based Output
I. Governance, Justice and Reconciliation	
1.2 To appropriately staff and manage public delivery systems at state and locality levels	<ul style="list-style-type: none"> Functional review of state and locality administrations completed State- and locality-level offices are constructed and/or rehabilitated and appropriately equipped
1.9 To establish reconciliation and conflict management processes and mechanisms	<ul style="list-style-type: none"> Agreements with sedentary and nomadic leaders regarding grazing and conflict resolution mechanisms for land-use disputes signed
1.10 To improve land registration/property system and related conflict resolutions	<ul style="list-style-type: none"> Darfur land-use mapping completed Comprehensive policy for land development drafted and endorsed based on land mapping results
II. Reconstruction	
2.1 To improve physical access to goods, markets and administrative and social services	<ul style="list-style-type: none"> Feeder roads linking markets and agricultural centres constructed/rehabilitated
2.2 To increase access to improved water sources and sanitation	<ul style="list-style-type: none"> Improved community water points constructed or rehabilitated Water points rehabilitated and increased along nomadic stock routes and in pastoral zones Water associations covering operation and maintenance costs
2.4 To enhance access to and utilization of comprehensive health and nutrition services	<ul style="list-style-type: none"> Pregnant/lactating women, adolescent girls and/or children under five years of age reached by basic (food) nutrition services
III. Economic Recovery	
3.4 To improve agricultural and livestock policies, regulatory instruments and institutional arrangements	<ul style="list-style-type: none"> Harmonized legislation and regulations on crops, livestock, market information and trade Formulation of state agricultural extension policy guidelines by State Ministries of Agriculture State Extension Research Farmer Advisory Council established Farmers field schools implemented at community level Agricultural extension/resource centres constructed/rehabilitated Field extension agents trained and based in localities Private veterinary clinics and mobile clinics established State food security resource information systems developed and operational

Pillar and Objective	Key Agriculture-related Output
III. Economic Recovery (cont'd)	
3.5 To improve crop and livestock production and productivity	<ul style="list-style-type: none"> (i) Crops: <ul style="list-style-type: none"> • Area under main oil seed and horticultural crop cultivation • Area under mechanised farming for food crops • Area provided with irrigation and drainage services • Water users provided with new/improved irrigation • Certified seeds produced and distributed • Numbers of farmers benefitting from improved extension services • IDPs, returnees and host farmers benefitting from improved agricultural packages (ii) Livestock <ul style="list-style-type: none"> • Pasture area planted using selected seeds • Herds of livestock vaccinated • Numbers of community animal health workers (CAHWs) trained • Number of pastoralists and agropastoralists receiving improved veterinary and/or livestock extension services and training
3.6 To improve value chains in livestock, agriculture and livelihoods development (while improving employment and income-generating activities)	<ul style="list-style-type: none"> • Value chain analyses and development plans completed for key commodities • Farmers trained in post-harvest management, value addition, produce marketing, cooperative management and micro-enterprise development • Producers' associations/cooperatives established • Producer-market linkages established • Functioning market information systems • Animal slaughter houses established • Livestock tannery factories established • Pilot processing plants (fruits and vegetables) constructed • People have access to income-generating activities
3.7 To manage water, land and forests sustainably	<ul style="list-style-type: none"> • Water resources management information system developed and up-to-date • Functioning meteorological stations • Land-use plans approved • Major catchment management plans agreed • Functioning water-users' committees • Rehabilitated nurseries • Environmental and forest laws developed. • Locality mapping of forestry areas completed • Reducing emission from deforestation and forest degradation (REDD+) programme developed • Early warning systems integrated into comprehensive government strategy for natural resource management • Area under sustainable land management and beneficiaries adopting sustainable land management techniques • Area under reforestation and under community forest management • <i>Gum Arabic</i> area rehabilitated • Fire-lines opened • Pasture area planted with improved seeds • People using alternative energy sources to wood • Community environmental management plans developed and supported

FAO'S REGIONAL AND NATIONAL PERSPECTIVE

3.1 FAO's Three Regional Initiatives

3.1.1 Sustainable Small-scale Agriculture for Inclusive Development

The “Sustainable Small-scale Agriculture for Inclusive Development” Initiative will support countries of the Near East and North Africa Region to reduce rural poverty through a cohesive programme addressing small-scale agricultural development. In this context, the Regional Initiative will support an improved policy environment effectively addressing the specificities of small-scale agriculture, to unleash the potential of this sector to effectively contribute to poverty reduction through growth, income generation and employment. Through targeted interventions, the Regional Initiative will also aim to support smallholders to sustainably improve productivity, value addition and market access, ensure better governance and institutions and promote investment in small-scale agriculture to enhance the dynamics of the agriculture economy, particularly in rural areas. Moreover, the Regional Initiative will specifically address one of the most important structural challenges in the region, namely high numbers of youth unemployment and gender inequality.

The Regional Initiative will provide a cohesive framework to better support countries such as Sudan and proposes to address challenges to small-scale agriculture through a three-pronged approach, and in line with FAO's Strategic Framework, namely: (i) improve the understanding of various typologies of smallholders, their linkages with markets and their barriers in order to support evidence-based policy and strategies and to prioritize interventions as well as better target public and private investment in favour of small-scale agricultural development; (ii) address specific challenges of small-scale agriculture to sustainably improve productivity, value addition and viability of the sector; and (iii) empower those engaged in small-scale activities in agriculture, forestry and fisheries, including strengthening professional organizations and supporting youth and women's employment.

3.1.2 Building Resilience to Enhance Food Security and Nutrition

The primary emphasis of the Regional Initiative on “Building Resilience to Enhance Food Security and Nutrition for the Near East and North Africa” will be on improving policy and governance for food security and nutrition and building resilient food security and nutrition institutions, markets and production systems through improved coordination and integration of actions at the subnational, national and regional levels. Within this framework, five areas of actions are considered crucial for the focus of the initiative: (i) strengthening of capacities for developing coherent policy frameworks and investment programme for sustainable food security and nutrition at the national and regional levels; (ii) developing efficient evidence-based food security information and knowledge exchange for decision support systems; (iii) promoting the development of efficient and sustainable food systems with specific attention to reducing food losses and waste; (iv) promoting sustainable access of households to safe, nutritious and diversified food; and (v) building the resilience of households and communities and agro-ecosystems to anticipate, absorb and recover from the negative impacts of man-made and natural shocks.

3.1.3 Water Scarcity

The “Water Scarcity” Initiative comes in support of FAO member countries of the Near East and North Africa Region in identifying priority areas of action in water management that can significantly contribute to boosting agricultural productivity, improving food security and using water resources in a more sustainable way. The rationale behind the initiative is described in FAO's Water Report 38: “Coping with Water Scarcity: an Action Framework for Agriculture and Food Security”. The Water Scarcity Initiative will assist countries to identify and streamline policies, governance and best

practices that can significantly improve agriculture productivity in sustaining their food security. The initiative will serve, complement and add value to the ongoing major policy processes in the region and will focus on the following six main areas of work: (i) adopting a water-food-energy nexus approach to water and food-security strategic planning and policies; (ii) strengthening/reforming governance at all levels; (iii) improving water management, performances and productivity in major agricultural systems and in the food chain; (iv) managing the water supply through reuse, recycling and adaptation to climate change; (v) building sustainability, with focus on groundwater, pollution and soil salinity; and (vi) benchmarking, monitoring and reporting on water-use efficiency and productivity.

3.2 Sudan Country Programming Framework (2012-2016)

The outcomes and outputs of the Four Priority Areas of Sudan's CPF are as follows:

Priority Area 1. Capacity Development and Consolidation of Policy, Laws, Planning and Information Institution, Systems and Mechanisms Reforms and Development in Agriculture, Fisheries and Forestry of Sudan

The programming framework for Priority Area 1 is captured by one outcome and three outputs, namely:

Outcome 1.1: Functional capacity for agriculture, food security and natural resource management (NRM) policy and planning, legal reform and improvement of valid and reliable sector co-ordination and information management systems at federal, state, locality and community levels enhanced and sustained.

Output 1.1.1: Capacity developed for the collection, management and dissemination of data and information on: food and nutrition security; rural and peri-urban household livelihoods; agriculture productivity, production, costs and prices; and natural resources (i.e. land, water and forests/rangelands).

Output 1.1.2: Capacity developed to formulate agriculture, food security, NRM and climate change adaptation policies, strategies and regulatory frameworks and prepare, monitor, evaluate and revise their respective action plans, programmes and projects.

Output 1.1.3: Improved food security, livelihoods and economic recovery co-ordination delivery at national, regional and state levels with active engagement of partners, effective leadership of co-lead agencies and enhanced inter-sectoral co-ordination linkages.

Priority Area 2. Capacity Development of Agricultural Research, Technology and Knowledge Development and Transfer for Enhanced Productivity, Production and Competitiveness Institutions, Systems and Mechanisms in Agriculture, Fisheries and Forestry of Sudan

The programming framework for Priority Area 2 is captured by two outcomes and four outputs, namely:

Outcome 2.1: Agricultural research and technology transfer institutions providing support services to farmers, pastoralists, fisherfolk and tree-dependent people according to international best practice.

Output 2.1.1: Agricultural research policies updated to accommodate demand-driven/applied research approaches; and government, civil society and private research institutions strengthened and supported.

Output 2.1.2: Agricultural extension strategies updated to accommodate participatory and public-private partnership approaches and to deliver new and improved climate-smart agricultural technologies and practices (and their respective regulatory frameworks prepared); and government, civil society and private sector agricultural service providers strengthened and supported to transfer such techniques efficiently and effectively.

Outcome 2.2: Productivity and production of cropping, livestock, fisheries and forestry systems significantly increased, cost of production reduced, and competitiveness of products improved; effects of climate change and variability and associated extreme weather events on smallholder producers negated; and livelihoods of smallholder growers, pastoralists, fisherfolk and tree-dependent people enhanced.

Output 2.2.1: Appropriate and timely delivery of new and improved climate-smart agricultural technologies and practices and supply of appropriate agricultural inputs (including a quality seed system for adapted crop and pasture varieties) by government, civil society and private sector service providers to smallholder producers ensured.

Output 2.2.2: Efficiency of existing water harvesting and irrigation systems enhanced and new systems developed through sustainable exploitation and management of underground and surface water supplies (based on catchment area integrated water management plans adopted by all stakeholders).

Priority Area 3. Capacity Development of Natural Resources' Conservation and Management Institutions, Systems and Mechanisms in Agriculture, Forestry and Fisheries of Sudan

The programming framework for Priority Area 3 is captured by two outcomes and five outputs, namely:

Outcome 3.1: Sudan's natural resource base and bio-diversity enhanced and access of vulnerable populations to land, water, pastures and forests improved through reformed and strengthened NRM, land use planning and land tenure policies and systems.

Output 3.1.1: Existing policies, strategies and regulatory frameworks for the environmental protection of Sudan's bio-diversity and fragile ecosystems, sustainable restoration of marginal and degraded areas and effective management of natural resources reformed and adopted by all stakeholders.

Output 3.1.2: VGGT adopted by community, locality and state-level organisations and authorities; land use planning systems and regulations ensuring equitable access to land by gender and youth reformed; and impediments for the private sector investing in agricultural land removed.

Outcome 3.2: Enhanced resilience of vulnerable rural communities to hazards and stresses (e.g. prolonged dry spells and droughts, heavy rainfall and floods, plant and animal pests and diseases, land degradation, lack of access to land, water, pastures and forests, conflict and displacement, and soaring food prices).

Output 3.2.1: Protection and recovery of food and nutrition security and livelihoods of vulnerable farming, agro-pastoralist and pastoralist communities improved through more effective and sustainable conservation and management of natural resources (in particular land, water and pastures) and more efficient and equitable short and medium-term responses to the needs of affected men, women, girls and boys.

Output 3.2.2: Climate-smart agriculture technologies tested, validated and practiced by farmers and agro-pastoralists to restore soil fertility, prevent soil erosion and overgrazing, control land degradation and arrest desertification (e.g. agro-forestry, conservation agriculture, integrated livestock feeding systems and community-based land use planning/VGGT).

Output 3.2.3: The drivers of deforestation and forest degradation addressed while enhancing biodiversity the resilience of vulnerable tree-dependent communities (particularly women gum Arabic collectors and processors) – in preparedness for a national “Reducing Emissions from Deforestation and Forest Degradation (REDD+)” Strategy.

3.4. Priority Area 4. Capacity Development of disaster risk management (DRM) Institutions, Systems and Mechanisms in Agriculture, Forestry and Fisheries of Sudan

The programming framework for Priority Area 4 is captured by one outcome and three outputs, namely:

Outcome 4.1: Enhanced DRM within the agriculture sector and food supply chains through the enabling of appropriate policies, strategies and regulatory frameworks and strengthening of relevant institutional capacities, including the authentication of reliable information for early warning systems, building a capacity to monitor and evaluate agricultural hazards, threats and crises, improve disaster preparedness and responses prompted, and reduced risks to agricultural threats.

Output 4.1.1: A multi-stakeholder platform for disaster risk reduction and crisis management established for agriculture, food security and nutrition-related sub-sectors and mechanisms (i.e. crops, livestock, fisheries and forestry production, NRM, trans-boundary animal disease (TAD) control and sanitary and phytosanitary (SPS) systems) and functioning to promote more resilience-based policy development, action planning and programming – including support to Government and United Nation's agencies in the development of DRM policy and regulatory frameworks, early warning systems and preparedness and response strategies.

Output 4.1.2: Significant reduction in the threat of outbreaks of TADs and zoonosis in Sudan through an informed and effective surveillance and disease control strategy and related systems.

Output 4.1.3: Government regulatory and institutional capacity for SPS control systems and food quality control and safety standards is made integral and strengthened, along with stronger food value chains, increased visibility of food safety, improved border inspections and increased consumer confidence.

3.3 FAO Capacity Building Programmes in Sudan

In the context of FAO's Additional Objective of "Technical quality knowledge and services", FAO's new "Capacity Development Framework" – an integral part of the Organization's "Corporate Strategy on Capacity Development" – is a tool that guides staff of FAO and its partners in analysing the appropriate types of interventions for fostering the development of capacities in countries such as Sudan. The framework is based on the enhancement of technical and functional capacities, which are prerequisite to achieving the goals of FAO and its Member States (including CPFs) across three dimensions, viz: (i) individual (i.e. knowledge, skills, etc.); (ii) organizational (i.e. public and private sector organizations, civil society organizations, etc.); and (iii) enabling environment (i.e. political commitment and visions, policy, legal and economic frameworks, budget allocations and processes, etc.). Technical capacities enable stakeholders to carry out tasks required to intensify food production sustainably, manage natural resources and eventually to improve food security and safety for all. In addition, four functional capacities enable stakeholders to plan, lead, manage and sustain change initiatives in agricultural and rural development to ensure that technical know-how is embodied in, for example, agricultural recovery, rehabilitation and development in Darfur Region, viz: (a) policy development and reform; (b) knowledge management and information exchange; (c) networks, alliances and partnerships; and (d) planning, implementation and monitoring.

3.3.1 Sudan Productive Capacity Recovery Programme

The capacity building component of the recently completed European Union-funded and FAO-implemented the Sudan Productive Capacity Recovery Programme (SPCRP) (2007-2012; EUR 19 million) is a prime example of FAO's new Corporate Strategy Framework. The capacity building component (CB) of SPCRPs supported the expansion of physical capacity as part of its work to strengthen Sudan's ability to improve agricultural service delivery in four conflict-affected states, i.e. Blue Nile, Red Sea, River Nile and South Kordofan. SPCRPs-CB also supported the strengthening of an enabling environment for agricultural and rural development in Sudan through a comprehensive approach addressing both policy and institutional and human resources levels in the same four states. SPCRPs-CB's **physical and human capacity and institutional development** achievements included:

- Construction or refurbishment of State MoA and MoAR and Locality Agriculture Offices, animal hospitals and pharmacies, veterinary laboratories and slaughter slabs, and the establishment of plant nurseries.

- Provision of 32 vehicles, 94 motorcycles, more than 300 bicycles and 60 donkeys to field staff and FFS facilitators for transport to help them reach marginal and small-scale farmers, deliver extension services and carry out surveys and other tasks.
- Provision of generators, computers and other equipment which enabled state and locality-level staff to carry out their tasks more efficiently and effectively in a modern environment.
- Support to the development of five-year agricultural strategic plans, agricultural extension policies and strategies and agribusiness policy for each of the four states.
- Support to the establishment of marketing units and in the MoAs and MoARs of the four states, whereby a total of 16 employees were trained on developing agro-enterprises, value-chain networking and financing and rapid agribusiness appraisal and planning; as well as the establishment of M&E units and coordination units to continue SPCRP-CB activities after phasing out of the programme.
- Establishment of training units in each state ministry to improve the management of plans and enhance skills development. Support was also given to enhance human capacity through technical training of trainers and on-the-job training for more than 3 000 government staff. A third of the training participants were women.

A second subcomponent of SPCRP-CB was the piloting and demonstration of the **FFS group-based approach to adaptive research and participatory learning** – primarily focused at increasing staple food crops and horticultural production in the Blue Nile, River Nile, Red Sea and South Kordofan States. The more successful and entrepreneurial FFSs were encouraged to graduate/evolve into producers' groups and farmers' associations which, with further empowerment and training, should benefit from greater shared resources, economies of scale and market negotiating power. A total of 222 seasonal FFSs were implemented in the four states, involving more than 5 500 farmers. Strong social and cultural barriers hindered the participation of female farmers in some rural areas. However, the percentage of women participants ranged from 15 percent in the Red Sea State to 50 percent in the Blue Nile State. In addition, the Component trained a total of five FFS supervisors, 60 master trainers/subject matter specialists and 444 FFS facilitators in the FFS approach and new and improved production technologies and practices to be transferred. The participation of women in these roles ranged from zero to 55 percent across the four states. Groups of master trainers were established to sustain the FFS model beyond the Component's lifetime.

Farmers participating in FFSs achieved increases in crop yields of up to 60 percent through improved cropping systems and more diversified agricultural activities on their group experimental plot, e.g. use of crop rotations, chicken manure, ridge cultivation, rainwater harvesting, integrated fish farming, etc. Fifty-five additional field days were organized to extend the learning of new and improved technologies and practices to some 11 000 farmers. Some 78 exchange visits between FFS participants were arranged, five “lesson learned” workshops were organized and one international study tour was undertaken.

A third subcomponent of SPCRP-CB was the piloting and demonstration of the “**community animal resources development associates (CARDA**” model of providing extended livestock development services beyond primary animal healthcare. It is based on a holistic approach (of animal healthcare, feeding, reproduction, breeding, etc.) which addresses the needs of livestock keepers. CARDAs are men and women selected by their respective communities to be trained in animal resources development services that they can then deliver in their communities. CARDAs primarily operate in remote pastoralist communities and are increasingly offering their skills on a pay-per-service basis, making the CARDA model a sustainable community-based delivery system.

Some 178 CARDAs from the Blue Nile, River Nile, Red Sea and South Kordofan States have been trained in primary animal healthcare, nutrition, reproduction, marketing and processing of meat and milk. The participation of eight women from the River Nile and Red Sea was considered a breakthrough in these culturally sensitive states. After training, each CARDA was equipped with a bicycle and a medical kit for offering their services to members of their communities. It is estimated

that 10 000 pastoralists and agropastoralists benefited from CARDA services during the project lifetime.

A fourth, but less successful, component of SPCRP-CB was to assist **small-scale farmers to form small business groups, access markets and develop rural enterprises** in the Blue Nile, River Nile, Red Sea and South Kordofan States. The Component supported the establishment of 42 small business groups with around 25 members each. Most of the groups comprised a mix of men and women, and seven of the groups were comprised solely of women. The groups were primarily involved with fishing, food processing, handicrafts and the processing of dairy products, honey, citrus and poultry and received the required training accordingly. The Component also conducted rural marketing assessments in each of the four states. Furthermore, value chain assessments for milk and grapefruit production were conducted in the River Nile State and for fish production in the Red Sea State.

3.3.2 Sudan Institutional Capacity Programme: Food Security Information for Action (SIFSIA) and Food Security Policy and Strategy Capacity Building Programme (FSPS)

SIFSIA was another recently completed EU-funded and FAO-implemented capacity development project (2007-2012; EUR 10 million). SIFSIA has strengthened the Government of Sudan's food security information generation, analysis and dissemination through eight main outputs, namely:

- i. Establish effective cross-sector partnerships for food security through the building and strengthening of stakeholder institutions.
- ii. Strengthen government capacity for developing food security policy and interventions through the promotion of food security policy and action.
- iii. Government regularly undertaking effective food security analysis through integrated and comprehensive food security analysis.
- iv. Government-led and sustained integrated crop monitoring, forecasting and production estimation system through integrated agroclimatology analysis.
- v. Strengthen government-owned and led "food and agriculture market information system" through the linking of farmers to markets.
- vi. Strengthen government capacity in NRM information system through the mapping of Sudan's natural resources.
- vii. Enhance government's ability to manage nutrition information monitoring system.
- viii. Establish government-owned comprehensive food security baseline through the survey of Sudan's households.

SIFSIA was successful in laying the **foundations for integrated and coordinated food security information and policy action** through intensive capacity development activities – including establishment and strengthening of the **Food Security Technical Secretariat (FSTS)** of the Federal MoAI. However, SIFSIA's support was primarily delivered at the federal level with limited outreach to state-level food security information systems. Support now calls for expanding the scope of SIFSIA at the state level in order to make Government of Sudan-level food security information more representative while availing information for target states to make their own decisions. To address the problem of limited or poor linkages between the state- and federal-level decision-making processes and increased transparency, more emphasis will be given to facilitate two-way communication and interaction mechanisms through a three-year follow-up EU-funded and FAO-implemented programme (EUR 8.6 million).

The outcome of the new FSPS programme is "food security decisions more inclusive, better integrated, informed, implemented and monitored in the states of Blue Nile, Gedaref, Kassala and Red Sea". The programme will be executed by FSTS with financial and technical support of the EU and FAO. The outcome of the programme will be achieved through five outputs modified/expanded from those of SIFSIA, viz: (i) effective cross-sectoral food security institutional framework and linked to the national institutional framework; (ii) capacity to review plan, budget and monitor food security

policies and strategies developed, resulting in more effective public action for food security and nutrition; (iii) functional regional food security information systems strengthened and support decision making; (iv) food security oriented non-state actors' capacity strengthened; and (v) key food insecurity drivers are better understood and linked to decision making.

3.4 FAO Sudan's Current Portfolio of Projects

Project Title	Funding (USD)	Donor	End Date	Location
1. Increasing cooperation between conflicting communities through promoting dialogue and enhancing livelihoods and NRM in North and West Darfur	1 000 000	DCPSF	Oct 2014	North and West Darfur
2. Surveillance and diagnosis of foot-and-mouth disease	491 000	FAO	Sep 2014	National
3. Technical support for comprehensive agricultural census in the Sudan	398 000	FAO	Dec 2014	National
4. Emergency response to the desert locust crisis in the Sudan	500 000	FAO	Mar 2014	National
5. Project formulation for the improvement of aquaculture sector in Sudan	22 454	FAO	Jun 2014	National
6. Development of a quality seed production system and value addition in Sudan	370 000	FAO	Oct 2016	National; and South Darfur
7. Formulation of the National Agriculture Investment Plan in Sudan	64 851	FAO	Dec 2014	National
8. Formulation of a TCP project for soil map in Sudan	22 775	FAO	Sep 2014	National
9. Review of the FAO Sudan Country Programming Framework and formulation of the Action Plan	65 399	FAO	Oct 2014	National
10. Enhancement of food security and livelihoods of vulnerable households in Sudan	2 494 354	CHF	Jun 2014	South Kordofan, Blue Nile, Kassala, Red Sea, Gedaref, Sinnar, White Nile and North Kordofan
11. Restoring and improving food security and livelihoods of vulnerable farming and pastoralist households in Darfur Region, Sudan	2 314 459	CHF	Jun 2014	Darfur Region

Project Title	Funding (USD)	Donor	End Date	Location
12. Enhancement of food security and livelihoods of vulnerable households in the three Protocol Areas (Abyei, South Kordofan and Blue Nile), Sudan	1 500 000	USAID OFDA	Mar 2014	Abyei, South Kordofan and Blue Nile
13. Restoring and improving food security and livelihoods of the affected communities in Darfur	1 500 000	USAID OFDA	Mar 2014	Darfur Region
14. Restoring food security and livelihoods of vulnerable pastoralist and agropastoralist households in Darfur, Sudan	305 350	UN CERF	Feb 2014	Darfur Region
15. Restore and strengthen food and nutrition security and build the livelihood resilience of vulnerable communities and households in Darfur	1 200 000	USAID OFDA	Dec 2014	Darfur Region
16. Restore and strengthen food and nutrition security and build the livelihood resilience of vulnerable communities and households in Abyei, Kordofan and Blue Nile	800 000	USAID OFDA	Dec 2014	Abyei, Kordofan and Blue Nile
17. Multisectoral emergency response to nutrition crisis in Sudan	1 025 999	UN CERF	Dec 2014	Red Sea and Kassala
18. Restoring the food and livelihoods security of new IDPs and extremely vulnerable farming and pastoralist households in Darfur, South and North Kordofan States, Sudan	1 248 523	UN CERF	Dec 2014	Darfur Region, South and North Kordofan
19. Emergency assistance (agriculture and livestock) to vulnerable households in Greater Darfur	675 000	Belgium	Mar 2015	Darfur Region
20. Support food security and livelihood sector interventions to restore and improve food security and livelihoods of extremely vulnerable rural communities in Darfur Region and in the three Protocol Areas	1 950 000	CHF	Feb 2015	Darfur Region, Abyei, South Kordofan, and Blue Nile
21. Support restoring and improving food security and livelihoods of the new IDPs and extremely vulnerable rural community in Sudan	703 250	CHF	Mar 2015	Darfur, Abyei, South Kordofan, and Blue Nile
22. Emergency assistance (agriculture and livestock) to vulnerable households in Greater Darfur	138 130	Australia	Apr 2015	Darfur Region

Project Title	Funding (USD)	Donor	End Date	Location
23. Food Security Policy and Strategy Capacity Building Programme (FSPS)	11 168 825	EU	Nov 2015	Blue Nile, Gedaref, Kassala, Red Sea
24. Integrated Food Security Project (IFSP) in Kassala State	5 921 479	Canada	Mar 2015	Kassala
25. School gardening	10 000	FAO	Feb 2015	Khartoum North
26. Joint resilience-building project in Kassala	5 800 000	UK/DFID		Kassala
27. Technical assistance to support food security and livelihoods of the pastoralist groups in West Kordofan, Sudan	500 000	FAO		West Kordofan
Hard Pipeline:				
28. Recovery of livelihoods of vulnerable pastoralist and agropastoralist households in the Darfur Region	2 247 000	Qatar		Darfur Region
29. Assessment and technical support to Darfur Land Commission and addressing land concerns at return sites	415 179	Qatar		Darfur Region
30. Sudan soil information system and digital soil mapping	380 000	FAO		Sudan
31. Emergency response to food and nutrition insecurity for the newly IDPs in North, South and Central Darfur	534 876	UN CERF		Central, North and South Darfur
32. Support to restore livestock and agriculture-based livelihoods of newly IDPs and returnees in the five Darfur States	839 234	CHF		Darfur Region
33. Support to NAIP preparation and validation		FAO	November 2015	Sudan
Soft Pipeline:				
34. Provision of life-saving food assistance and targeted gender-sensitive livelihoods of South Sudanese refugees in Sudan	148 500	CHF		White Nile
35. Building household resilience through promoting adapted production technologies in livelihoods and natural resources management in Tokar and Haya localities in Red Sea State	630 500	Italy		Red Sea
36. Peace and stability through responsible tenure governance in Darfur	7 560 000	European Union		Darfur Region

**SUDAN COUNTRY PROGRAMMING FRAMEWORK
PLAN OF ACTION (2015-2019)**
INTERVENTION AREAS: PROJECTS AND PROGRAMMES

1. Improved Policy and Institutional Environment for Food and Nutrition Security and Resilience Programming – through capacity development, enhanced coordination and better informed decision making and knowledge management and sharing systems
2. Enhancing Production, Productivity and Competitiveness of the Crops, Livestock and Forestry Subsectors and Agricultural Climate Change Adaptation
3. Natural Resource Management and Livelihoods, Food Security and Nutrition Response, Protection and Recovery
4. National, Regional and International Control of Threats to Sudanese Food Chains

Intervention Area 1. Improved Policy and Institutional Environment for Food and Nutrition Security and Resilience Programming – through capacity development, enhanced coordination and better informed decision making and knowledge management and sharing systems	
Objective	To develop an enabling environment whereby: (a) MoAI, MoLFR, MoEFPD, MoWRE and MoH can prepare policies, strategies and regulatory frameworks and formulate programmes and projects and manage information management and sharing systems for a reformed and more resilient agriculture sector; (b) FAO can provide more resilience-based coordination of and support to the Food Security and Livelihood Cluster of SRP and the Economic Recovery Pillar III of DDS; and (c) FAO can assist in the required adjustment of and further support to a revised UNDAF.
Rationale and Justification:	
<p><i>Information Management and Institutional Assessment</i></p> <p>The social, political and economic circumstances of Sudan have changed considerably since the secession of South Sudan in 2011, in particular the loss of oil revenues and the significant increase in the importance of the agriculture sector for the country's economic recovery. Despite the promulgation of poverty reduction and five-year development plans, economic salvation programmes, ARP and DDS since 2011, there remains a lack of up-to-date agriculture and food security data upon which to base sound decision making and policy development for the crops, livestock fisheries and forestry subsectors, natural resource management and a modern food industry. The Government of Sudan is committed to a National Agriculture Census, for which FAO is assisting with preparatory work, including sampling frames, questionnaires and data analysis systems. However, such agricultural statistics would require further analysis and reporting to reflect food and nutrition security and resilience-based policy needs.</p> <p>The last institutional assessment of the agriculture sector was undertaken by FAO as part of the baselines for the EU-funded and FAO-implemented SPCRP-CB and SIFSA in 2006, and only then of the Federal MoAI and MoLFR and four State Ministries of Agriculture and Animal resources, namely: Blue Nile, Red Sea, River Nile and South Kordofan. Given the decentralization of many government agricultural support services (including agricultural extension), the recent enactment of several laws liberalising seed systems and gum Arabic production and recognizing more informal "producer organizations", as well as the abovementioned socio-political and socio-economic changes in the country (including promulgation of DDS), there is a need to repeat this institutional assessment but across a much broader spectrum – including all government agencies (e.g. MoAI, MoLFR, MoEFPD, MoWE and MoH and their respective corporations), civil society organizations (i.e. academic and research institutions, farmers' and pastoralists' unions, cooperative unions, NGOs and CBOs) and private sector organizations and companies (e.g. SBEF and its UoCAP), and at central, regional, state, locality and village levels.</p> <p>The current EU-funded and FAO-implemented FSPS Programme addresses key problems, both at the federal and state levels, related to the establishment of an effective and sustainable food security inter-sectoral institutional framework able to address in a sustainable manner key food security problems and its structural causes in a resilience perspective. Key gaps to be addressed through this initiative include: (i) inadequate understanding of key drivers of food security and vulnerability; (ii) poor sustainability of food security and nutrition information systems and related weak capacities of national and state institutions; and (iii) inadequate links between food security and resilience analysis and related decision making. Based on the successful experience of FSPS Programme in four states (i.e. Blue Nile, Gedaref, Kassala and Red Sea) and related capacity assessment, DRA and MoAI have proposed to expand the initiative to cover the remaining 14 states of Sudan (including Central, East, North, South and West Darfur – under DDS). This expanded programme will be at the core of CPF/PoA because it is designed to create capacities and to inform all the food security and resilience investments foreseen by the Plan, and create the institutional conditions necessary for their implementation.</p> <p>Since 1998, when the first inventory on forestry resources was completed many changes took place in Sudan. Natural resources deterioration and desert encroachment has extended over new areas, drought and flood cycles are more frequent, and most important of all the secession of South Sudan removed with it large areas under forests. The knowledge on the present inventory of forests resources and coverage in Sudan is almost unknown. Therefore, planning of forests' rehabilitation and development and conservation would be based on mere subjective calculations and grounds. The present advancement in geographical information systems together</p>	

with ground validation can facilitate production of reliable forestry (and range) inventory that can be used for planning and supporting livelihood of masses of rural people especially women who are dependent on trees and pastures. The proposed inventory aims at diversifying the definition and purposes of forestry and range development. These would now incorporate socio-economic livelihoods associated with forest uses and management. It also concentrates on the wood and non-wood products of forests in addition to the environmental benefits and tourism value. The function of forests also extends to include the carbon sink phenomena, already experienced in Sudan.

Food Security and Livelihood (FSL) Coordination

FAO is currently Co-lead (with WFP) of UNHT's Food Security and Livelihood Sector (cf. HNOs and SRPs), Pillar Co-lead (with DRA) of Economic Recovery Pillar III for implementation of DDS and Alternate Chair of the United Nations' Programme Management Team for DDS.

Protracted crisis contributed to jeopardizing Sudan's food security situation. Factors contributing to food insecurity include civil and inter-ethnic conflicts, insecurity and inaccessibility, recurrent droughts, floods, erratic rains, refugees/IDPs and returnees, drought and desert encroachment, deterioration of ecosystems and natural resources, loss of productive assets, pest infestation of crops, blockade of internal and cross-border livestock migratory routes, rising food prices aggravated by wider domestic and international economic situations. Given the multitude and magnitude of the problems facing FSL Sector, many actors/partners have joined to help respond to the needs of the affected population. However, there is strong need to strengthen the existing FSL Sector coordination system to facilitate involvement of partners, generate and exchange update FSL data/information, avoid duplication and overlaps, reduce gaps, and promote common approaches to adequately cover the huge challenges faced by the Sector.

The FSL Sector is one of the biggest in Sudan in terms of number of partners. There are over 75 partners in Khartoum with around 50 partners in respective states composed of relevant United Nations agencies, government line ministries, international and national NGOs, CSOs and CBOs. The performance and delivery levels of many national partners and institutions are constrained due to restricted capacity and limited acquaintance with food security and livelihoods approaches, and international standards and guidelines. Facilitating their access to appropriate information, knowledge, skills and financial resources is expected to improve their effectiveness in preparing for and responding to food security and livelihoods emergencies. Strengthening capacities of partners in: FSL assessments; application of tools, standards and guidelines; proposal development; project cycle management; report writing enhances overall delivery of the FSL sector results; and multisectoral awareness raising in DRR and crisis prevention.

The situation in areas of operation is complex and volatile and therefore requires continuous observation and analysis as well as appropriate review and adaptation of sector strategies so that the right support is provided to the right population categories, taking into consideration the distinct needs of men, women boys and girls. In-depth food security assessments are important sources of orientation to accurately review and re adapt Sector strategies. Continue support to regular routine assessments such as pre and post-harvest assessments, Annual Crop and Food Supply Assessments and Food Security Monitoring System. Assessments enable Sector partners and other stakeholders to focus attention and resources on the most vulnerable and food-insecure persons, taking into consideration the needs of all categories of the affected population (i.e. men, women, girls and boys).

FAO would build on lessons learned from completed and ongoing projects, namely: EU-funded SPCRP-CB (2007-2012; EUR 19 million); EU-funded SIFSIA (2007-2012; EUR 10 million); EU-funded "FSPS programme" (2012-2015; EUR 8.6 million); TCP-funded "Technical support for a comprehensive agricultural census" (2013-2014; USD 398 000); and Government of Qatar-funded "Assessment and technical support to the Darfur Land Commission and addressing land concerns at return sites" (18 months; USD 415 000).

Programmes and Projects																								
Short-term Project 1.1 Institutional Assessment of Key Actors in the Recovery and Development of the Agriculture Sector in Sudan																								
Outcome:	Government and private sector agricultural decision makers and support services familiar with the need for promoting current international best practices in adaptive research, participatory extension, climate-smart agriculture and integrated food nutrition – under reformed agriculture, food security and nutrition policies and strategies.																							
Outputs: <ol style="list-style-type: none"> 1. A thorough institutional assessment of relevant Government ministries and civil society and private sector organizations completed – with recommendations for the reform and capacity development of agricultural policy making and support services. 2. Recommended reforms of agriculture, food security and nutrition policies agreed by key stakeholders and improvements to crops, livestock, fisheries and forestry strategy development, research and development and extension delivery initiated accordingly. 3. A comprehensive capacity development programme for staff of all levels from relevant Government ministries, civil society and private sector organizations and agricultural support service providers (in modern approaches to integrated food and nutrition security systems, crop, livestock, fisheries and forestry development and natural resources management) adopted by key stakeholders for funding by development partners. 4. Linkages between stakeholder organizations of Sudan's agriculture sector and FAO's and CGIAR's global and regional networks and programmes developed and sustained. 																								
Implementing Partners <ul style="list-style-type: none"> • Federal MoAI, MoLFR, MoEF, MoWE and MoH • Agricultural faculties of universities • Economic research centres; and independent consultants • IFAD • Consortium of International Agricultural Research Centres (CGIAR) 																								
Beneficiaries <ul style="list-style-type: none"> • Managerial and technical staff from directorates, departments and corporations of the Federal MoAI, MoLFR, MoEF, MoWE and MoH • Managerial and technical staff of State Ministries of Agriculture and Animal Resources, Health, etc. and Agricultural Research Corporation (ARC) and Forests National Corporation (FNC) • Civil society organizations (i.e. research and academic institutions, farmers and pastoralist unions, NGOs, CBOs, etc.) 																								
FAO Regional Initiative: "Sustainable small-scale agriculture for inclusive development"	FAO Objective No: 6 – "Technical quality, knowledge and services"																							
Duration: 18 months Cost Estimate <table> <thead> <tr> <th>FAO Cost Categories</th> <th>USD</th> </tr> </thead> <tbody> <tr> <td>Personnel</td> <td>215 000</td> </tr> <tr> <td>Contracts</td> <td>75 000</td> </tr> <tr> <td>Travel</td> <td>25 000</td> </tr> <tr> <td>Training</td> <td>53 000</td> </tr> <tr> <td>Expendable procurement</td> <td>10 000</td> </tr> <tr> <td>Non-expendable procurement</td> <td>25 000</td> </tr> <tr> <td>Technical support services</td> <td>40 000</td> </tr> <tr> <td>General operating expenses</td> <td>24 000</td> </tr> <tr> <td>Support costs</td> <td>33 000</td> </tr> <tr> <td>Total</td> <td>500 000</td> </tr> </tbody> </table>			FAO Cost Categories	USD	Personnel	215 000	Contracts	75 000	Travel	25 000	Training	53 000	Expendable procurement	10 000	Non-expendable procurement	25 000	Technical support services	40 000	General operating expenses	24 000	Support costs	33 000	Total	500 000
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Total	500 000																							

Short-term Project 1.2 Support to Disaster Risk Reduction and Crisis Management In the Agriculture Sector			
Outcome:	Functioning multistakeholder platform for DRR and crisis management for agriculture, food security and nutrition-related subsectors (i.e. crops, livestock, fisheries, forestry and natural resource management).		
Outputs:			
1. Improved awareness and understanding of disaster resilience and the role of risk reduction and crisis prevention measures at institutional and community levels for agriculture, food and nutrition related subsectors.			
2. Inter-ministerial and multistakeholders consultative and decision making mechanism designed and established for addressing shocks and stresses affecting the livelihoods, food security and nutrition of vulnerable farmers, pastoralists, fishers and tree-dependent people at federal and state levels.			
3. Established federal and state-level platforms functioning for reviewing multi-hazard risk monitoring information and early warning triggers.			
4. Joint/integrated approaches and measures tested for drought resilience (i.e. one hazard focus) as part of IGAD/IDDRSI.			
Implementing Partners			
<ul style="list-style-type: none"> • Federal MoAI, MoLFR, MoEFPD, MoWE and MoH • Humanitarian actors addressing agriculture-food and nutrition related sectors • Development actors involved in natural resources-based livelihoods and ecosystems management • IGAD 			
Beneficiaries			
<ul style="list-style-type: none"> • Managerial and technical staff from directorates, departments and corporations of the Federal MoAI, MoLFR, MoEFPD, MoWE and MoH • Managerial and technical staff of State Ministries of Agriculture and Animal Resources Health, etc. • Civil society organizations (i.e. research and academic institutions, farmers and pastoralist unions, NGOs, CBOs, etc.) 			
FAO Regional Initiative: “Building resilience to enhance food security and nutrition”			
FAO Strategic Objective No: 5 – “Increase the resilience of livelihoods from disaster”			

Long-term Programme 1.3 Capacity Development for Evidence-based Resilience and Food Security and Nutrition Policy and Programmes																							
Outcome:	Food and nutrition security and resilience related policy and programmes are more inclusive, better integrated, informed, implemented and monitored in all 18 states of Sudan.																						
Outputs:																							
1. Effective cross-sectoral state-level food security institutional frameworks established and linked to the national institutional framework. 2. Capacity for state-level decision makers to review, plan, budget and monitor food security and resilience-related policies and strategies developed. 3. Functional state and national-level food security information systems strengthened and better linked to decision making processes. 4. Key food insecurity and vulnerability drivers are better understood and linked to federal and state-level decision making processes. 5. Participation of non-state-actors in relevant food security and resilience-related actions promoted at state and federal levels.																							
Implementing Partners	Duration: 60 months																						
<ul style="list-style-type: none"> • Strategic Planning General Secretariat (SPGS) • Federal Food Security Technical Secretariat (FSTS) • Federal MoAI, MoLFR and MoH • Humanitarian-Aid Coordination Commission (HAC) • UNICEF and WFP 	Cost Estimate <table> <thead> <tr> <th>FAO Cost Categories</th> <th>USD</th> </tr> </thead> <tbody> <tr> <td>Personnel</td> <td>10 720 000</td> </tr> <tr> <td>Contracts</td> <td>3 220 000</td> </tr> <tr> <td>Travel</td> <td>1 340 000</td> </tr> <tr> <td>Training</td> <td>5 090 000</td> </tr> <tr> <td>Expendable procurement</td> <td>80 000</td> </tr> <tr> <td>Non-expendable procurement</td> <td>2 150 000</td> </tr> <tr> <td>Technical support services</td> <td>800 000</td> </tr> <tr> <td>General operating expenses</td> <td>1 200 000</td> </tr> <tr> <td>Support costs</td> <td>3 200 000</td> </tr> <tr> <td>Total</td> <td>27 800 000</td> </tr> </tbody> </table>	FAO Cost Categories	USD	Personnel	10 720 000	Contracts	3 220 000	Travel	1 340 000	Training	5 090 000	Expendable procurement	80 000	Non-expendable procurement	2 150 000	Technical support services	800 000	General operating expenses	1 200 000	Support costs	3 200 000	Total	27 800 000
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Beneficiaries																							
<ul style="list-style-type: none"> • Managerial and technical staff from SPGS, FSTS, HAC and directorates and department of the Federal MoAI, MoLFR and MoH • Managerial and technical staff from state-level Ministries of Agriculture, Livestock, Health, etc. • Staff of state-level Food Security Technical Working Groups • Staff of relevant state-level non-state actors 	<table> <tbody> <tr> <td>Expendable procurement</td> <td>80 000</td> </tr> <tr> <td>Non-expendable procurement</td> <td>2 150 000</td> </tr> <tr> <td>Technical support services</td> <td>800 000</td> </tr> <tr> <td>General operating expenses</td> <td>1 200 000</td> </tr> <tr> <td>Support costs</td> <td>3 200 000</td> </tr> <tr> <td>Total</td> <td>27 800 000</td> </tr> </tbody> </table>	Expendable procurement	80 000	Non-expendable procurement	2 150 000	Technical support services	800 000	General operating expenses	1 200 000	Support costs	3 200 000	Total	27 800 000										
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FAO Regional Initiative: “Building resilience to enhance food security and nutrition”	FAO Strategic Objective Nos: 1 and 5 – “Contribute to the eradication of hunger, food insecurity and malnutrition” and “Increase the resilience of livelihoods from disaster”																						

Medium-term Project 1.4 National Forest Resource Assessment and Monitoring		
Outcome:	The capacity for the Forests National Corporation (FNC) to collect, analyse and produce forest and natural resources data and share with stakeholders is enhanced.	
Outputs:		
1. Institutional, managerial and technical capacity of FNC for the preparation of a forestry and natural resources inventory strengthened (including training needs assessment, in-service training in data collection and analysis, communication, etc., input supply and quality standards, and guidelines and manuals). 2. A national forest and natural resources assessment successfully completed and a national forest and range inventory published to enable planners and decision makers to develop appropriate natural resources and conservation plans. 3. Technical skills and management capacity of FNC to support tree-dependent people through community-based management of sustainable forests and natural resources developed and strengthened. 4. Knowledge management, communication and advocacy strategies and plans for forest and natural resources' rehabilitation, development and conservation prepared and aligned to national and state-level and priority objectives and policies. 5. Awareness and knowledge of private sector organizations and local traders of forest-based products in sustainable management of natural resources improved through advocacy campaigns.		
Implementing Partners		Duration: 36 months
<ul style="list-style-type: none"> MoEFPD, MoAI and MoLFR FNC and Forestry Research Corporation Faculty of Forestry, University of Khartoum and Sudan University of Science and Technology 		Cost Estimate
		FAO Cost Categories
		USD
		Personnel 750 000
		Contracts 1 250 000
		Travel 120 000
		Training 250 000
Beneficiaries		Expendable procurement 80 000
<ul style="list-style-type: none"> Managerial and technical staff from national and state-level FNC Managerial and technical staff from state-level Ministries of Agriculture and Animal Resources Private sector organizations and traders in forest products Leaders of tree-dependent and range-dependent agropastoral and pastoral communities Lecturers and students of forestry colleges 		Non-expendable procurement 240 000
		Technical support services 80 000
		General operating expenses 60 000
		Support costs 370 000
		Total 3 200 000
FAO Regional Initiative: "Sustainable small-scale agriculture for inclusive development"	FAO Strategic Objective No: 2 – "Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner"	

Short-term Project 1.5 Environment, Forestry and Climate Change Management Capacity Strengthening				
Outcome:	Capacity developed within the Ministry of Environment, Forestry and Physical Development (MoEFPD) and its partners to prepare environmental, forestry and climate change policies and action plans in line with global and regional funds, strategies and programmes			
Outputs:				
<ol style="list-style-type: none"> 1. National action plan for the regional Great Green Wall Initiative finalized. 2. Sudan's preparedness for REDD+ improved through increased awareness of stakeholders in reducing emissions of greenhouse gases and removing greenhouse gases through enhanced forest management, and preparing appropriate research and development projects. 3. National multiyear programme prepared for support of the FAO Committee on Forestry (COFO). 4. Design of an appropriate system for monitoring greenhouses from agricultural activities. 5. Awareness increased among stakeholders in climate-risk insurance schemes to mitigate against extreme weather events. 6. Technical support to the preparation of project proposals for Global Environment Fund (GEF) funding (including the Green Climate Fund). 				
Implementing Partners <ul style="list-style-type: none"> • MoEFPD • FNC • Institute of Environmental Studies, University of Khartoum and College of Water and Environmental Engineering, Sudan University of Science and Technology 				
Beneficiaries <ul style="list-style-type: none"> • Managerial and technical staff from directorates, departments and corporations of the Federal MoEFPD (including FNC) • Managerial and technical staff from directorates, departments and corporations of the Federal MoAI and MoLFR • Lecturers and students of environmental institutes and colleges • Leaders of farming, pastoral, fisheries and tree-dependent communities 				
FAO Regional Initiative: "Sustainable small-scale agriculture for inclusive development"		FAO Strategic Objective No: 2 – “Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner”		

Short-term Project 1.6 Defining the Role of Private Sector Service Providers to Support Smallholder Farmers in a Reformed Agriculture Sector																							
Outcome:	A framework for improving private sector support to smallholder farmers developed through capacity development of the Union of Chambers of Agriculture and Production (UoCAP), Sudanese Businessmen and Employers' Federation (SBEF).																						
Outputs:																							
<p>1. Participatory strategy to overcome present and future constraints in private sector support to smallholder farmers developed and mission statement prepared and published.</p> <p>2. Time-bound priority matrix and plan of action for improved UoCAP support to local agricultural service providers and agro-industries (i.e. manufacturers, input suppliers, traders, processors, etc.) in order to develop smallholder crop, livestock, fisheries and forestry production.</p> <p>3. Establish a platform within SBEF of national and international agribusiness linkages to support smallholder agriculture in Sudan.</p> <p>4. Support SBEF in the establishment of an agribusiness information centre, particularly for small-scale state and locality-level agricultural service providers and agro-industries.</p>																							
Implementing Partners	Duration: 12 months Cost Estimate <table> <thead> <tr> <th>FAO Cost Categories</th> <th>USD</th> </tr> </thead> <tbody> <tr> <td>Personnel</td> <td>72 000</td> </tr> <tr> <td>Contracts</td> <td>10 000</td> </tr> <tr> <td>Travel</td> <td>12 000</td> </tr> <tr> <td>Training</td> <td>15 000</td> </tr> <tr> <td>Expendable procurement</td> <td>5 000</td> </tr> <tr> <td>Non-expendable procurement</td> <td>0</td> </tr> <tr> <td>Technical support services</td> <td>20 000</td> </tr> <tr> <td>General operating expenses</td> <td>12 000</td> </tr> <tr> <td>Support costs</td> <td>10 000</td> </tr> <tr> <td>Total</td> <td>156 000</td> </tr> </tbody> </table>	FAO Cost Categories	USD	Personnel	72 000	Contracts	10 000	Travel	12 000	Training	15 000	Expendable procurement	5 000	Non-expendable procurement	0	Technical support services	20 000	General operating expenses	12 000	Support costs	10 000	Total	156 000
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Total	156 000																						
Beneficiaries	<ul style="list-style-type: none"> Representatives and members of eleven agricultural chambers under umbrella of UoCAP (i.e. agricultural inputs, agricultural services, dairy, fish, food crops, gum Arabic, horticulture, live animals, red and white meat and skins and hides) New and existing small-scale Khartoum, state and locality-level agricultural service providers and agro-industries Importers and exporters of small-scale agricultural machinery, tools, inputs, etc. 																						
FAO Regional Initiative: "Sustainable small-scale agriculture for inclusive development"	FAO Strategic Objective No: 2 – "Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner"																						

Long-term Programme (of annual SRP funding) 1.7 Coordination of the United Nations Food Security and Livelihood Cluster (HNO and SRP), DFA/DDS's Economic Recovery Pillar III, and Contribution to a Revised UNDAF	
Outcome:	Improved food security, livelihoods and economic recovery coordination delivery at national, regional and state levels with active engagement of partners, effective leadership of co-lead agencies and enhanced inter-sectoral coordination linkages.
Outputs: <ol style="list-style-type: none"> Functional Food Security and Livelihood Sector, Economic Recovery and Poverty Reduction, Inclusive Growth and Sustainable Livelihoods and coordination fora (for HNO and SRP, DDS and UNDAF respectively) with active involvement of partners and operational working groups based on agreed upon priorities of the agriculture sector. United Nations' Humanitarian Needs Overview (HNO) and Strategic Response Plan (SRP) informed with findings from needs/situation assessments of affected rural populations and related food security information analysis Sustained agriculture, food security and nutrition advocacy messages identified and delivered in relevant fora with enhanced collaboration among partners. Humanitarian work plans prepared and progress regularly monitored, reported and shared among partners, OCHA and United Nations' Humanitarian Country Team (UNHCT). Humanitarian contingency plan prepared and shared with effective food security and livelihoods sector response facilitated. Humanitarian partners' delivery of service to affected populations strengthened through improved consideration of local stakeholders capacity development and involvement of communities in their response. FAO's "Programme for Agricultural Recovery, Reconstruction and Development in the Darfur Region (2014-2019)" advocated and resources mobilized for full and active engagement of the Organization in implementation of the Darfur Development Strategy (DDS). Assistance provided to the United Nations Country Team (UNCT) in revision and follow-up support of UNDAF to reflect the importance of agriculture, food security and nutrition for poverty reduction, inclusive grown and sustainable livelihoods in Sudan. 	
Implementing Partners <ul style="list-style-type: none"> WFP (specifically, as co-lead of UN Food security and Livelihood Sector) DRA (as co-lead of Economic Recovery Pillar III of DDS) UNDP (specifically, as FAO is alternate chair to DDS Programme Management Team) UNCT (in general, for development coordination) UNHCT (in general for humanitarian coordination) 	
Beneficiaries <ul style="list-style-type: none"> Affected rural populations of Sudan Local NGOs and CBOs 	
FAO Regional Initiative: "Building resilience to enhance food security and nutrition"	
FAO Strategic Objective No: 5 – "Increase the resilience of livelihoods from disaster"	

Intervention Area 2. Enhancing Production, Productivity and Competitiveness of the Crops, Livestock and Forestry Subsectors and Agricultural Climate Change Adaptation	
Objective	To enhance the production, productivity and competitiveness of the agriculture sector (i.e. crops, livestock, fisheries and forestry subsectors) and adapt production and post-harvest technologies and practices to climate change and variability through improved adaptive research systems and participatory extension services.
Rationale and Justification:	
<p>The majority of Sudan's land is quite vulnerable to change in temperature and precipitation. The country's inherent vulnerability is that food security is mainly determined by rainfall, particularly in the rural areas where more than two-thirds the population lives and where considerable areas of land are already degraded due to soil infertility and erosion as a consequence of deforestation, over-grazing and continuous mono-cropping and ploughing. Recent climate scenarios analysis indicates that the average temperature in Sudan is expected to rise significantly, i.e. 1.5° to 3.1° C during August and between 1.1° to 2.1° C during January by 2060. Average rainfall is expected to decrease by 6mm/month (i.e. five percent) during the rainy season.</p> <p>It is anticipated that the humid agroclimate zones will shift southwards, rendering areas of northern states increasingly unsuitable for agriculture. For example: in Kordofan Region, millet production is predicted to decline between 15 and 62 percent sorghum between 29 and 71 percent and gum Arabic between 25 to 30 percent by 2060. Most affected will be the small-scale rainfed farmers, agropastoralists and pastoralists. It is expected that increases in temperature and variability in precipitation combined with growing socio-economic pressure are likely to intensify the ongoing process of desertification in the country. Under such a scenario, the area of arable land as well as the gum Arabic belt would decrease hence food security and local income will drop dramatically.</p> <p>The availability of water is already perennially critical issue in an extremely arid country such as Sudan. There will be a risk of decreased precipitation and/or increased temperature and evaporation that has grave repercussions for the country. It is anticipated that, in a matter of years, water availability may be the most critical issue facing traditional rainfed areas of Sudan. The water assessment shows soil moisture declining under future climate conditions. A combination of water consumption, population growth, high rates of evaporation and high rainfall variation are predicted to lead to a situation of water crisis.</p> <p>Sudan is also experiencing an increase in the frequency of devastating floods of two specific types, namely: (i) torrential rain, when high levels of water overflow the River Nile and its tributaries, usually due to above normal rainy seasons in the Ethiopian Plateau; and (ii) heavy localized rainfall during the rainy summer season. In addition to drought and floods there are other climate extreme events such as dust storms, thunderstorms and heat waves whose occurrence, though less frequent, still pose serious threat to local livelihoods. Studies have also highlighted the increased risk of malaria and water-borne diseases, transmission due to climate change.</p> <p>MoAI and MoLFR acknowledge the wide gap between the scientific knowledge of central-level researchers and the techniques practiced by traditional smallholder farmers of Sudan. While there remains an unacceptably large gap between the production levels obtained by small-scale farm units compared to that of Khartoum and Wad Medani-based research institutes, there is also concern about the significant gap that exists between the productivity levels of the latter and state-level research stations and demonstration farms/plots of government extension services. In this context, traditional government-led agricultural extension services are proving ineffective as State Ministries of Agriculture and Animal Resources lack the resources to operate a large network of state-level subject matter specialists, locality-level extension officers and village-level extension agents. More and more, resource-poor smallholder farmers are seeking (usually, with little success) alternative sources for new technologies and problem-solving solutions, e.g. local NGOs, credit officers and agents, staff and students of local universities and agricultural schools and local shopkeepers/salespersons of farm inputs.</p> <p>However, such services are <i>ad hoc</i> and location and project-specific and, like government research and extension staff, these extensionists lack up-to-date knowledge on climate-smart agricultural technologies and practices and adaptive research and participatory learning approaches to technology transfer (e.g. FFSs and CARDAs) that have proved successful with groups of smallholder men and women farmers, agropastoralists and pastoralists all over the world. In Sudan, the EU-funded and FAO-implemented SPCRP-CB demonstrated the merits of and trained government extension staff and community based facilitators and associates in the "FFS approach" to</p>	

group-based adaptive research and participatory learning and “CARD services” for community-based animal health and production – but, only in four states (Blue Nile, Red Sea, River Nile and South Kordofan). Based on the successful experience of SPCRP-CB and related state and locality-level capacity development, DRA and MoAI have proposed to expand the initiative to cover the remaining 14 states of Sudan (including Central, East, North, South and West Darfur – under DDS). The FFS and CARDA approaches will also be at the core of CPF/PoA because it is designed to create capacities and to inform all the modern climate-smart agriculture and livelihood resilience investments foreseen by the Plan, and create the institutional conditions necessary for their implementation.

FAO would build on lessons learned from completed and ongoing projects, namely: EU-funded SPCRP-CB (2007-2012; EUR 19 million); and TCP-funded “Development of a quality seed production system and value addition in Sudan” (2014-2016; USD 370 000).

Programmes and Projects

Short-term Project 2.1 Climate Change Adaptation in Key Rainfed Crop Varieties																							
Outcome:	Improved food and fodder crop and pasture varieties developed that are tolerant to increasing drought and heat conditions (including groundnut, millet, oilseeds, sesame, sorghum, sunflower and nutritious grasses) and made available to private seed companies and community-based organizations (CBOs) for multiplication.																						
Outputs:																							
1. Institutional assessment of the Agricultural Research Corporation (ARC), including the ability of its research stations to breed food and fodder crop and pasture varieties adaptable to climate change and their capacity to produce foundation seed under more secure seed supply systems – with recommendations for capacity development.																							
2. Physical and human capacity of selected ARC research stations developed to implement formal plant breeding programmes for the propagation of drought and heat-tolerant varieties using modern biotechnologies, including the provision of specialist laboratory and seed production and testing equipment and materials.																							
3. Selection, hybridization and breeding of improved varieties tolerant to drought and heat at appropriate ARC research stations across Sudan.																							
4. Foundation seed made available by ARC for further multiplication by private seed companies and CBOs.																							
Implementing Partners	Duration: 24 months Cost Estimate <table> <thead> <tr> <th>FAO Cost Categories</th><th>USD</th></tr> </thead> <tbody> <tr> <td>Personnel</td><td>450 000</td></tr> <tr> <td>Contracts</td><td>730 000</td></tr> <tr> <td>Travel</td><td>50 000</td></tr> <tr> <td>Training</td><td>240 000</td></tr> <tr> <td>Expendable procurement</td><td>610 000</td></tr> <tr> <td>Non-expendable procurement</td><td>900 000</td></tr> <tr> <td>Technical support services</td><td>80 000</td></tr> <tr> <td>General operating expenses</td><td>120 000</td></tr> <tr> <td>Support costs</td><td>420 000</td></tr> <tr> <td>Total</td><td>3 600 000</td></tr> </tbody> </table>	FAO Cost Categories	USD	Personnel	450 000	Contracts	730 000	Travel	50 000	Training	240 000	Expendable procurement	610 000	Non-expendable procurement	900 000	Technical support services	80 000	General operating expenses	120 000	Support costs	420 000	Total	3 600 000
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Beneficiaries																							
• Managerial and technical staff of ARC research stations (located in appropriate drought and heat-prone agro-ecological zones)																							
• Private sector seed companies																							
• Community-based seed growers' groups																							
FAO Regional Initiative: “Sustainable small-scale agriculture for inclusive development”	FAO Strategic Objective No: 2 and 5 – “Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner” and “Increase the resilience of livelihoods from disaster”																						

Medium-term Project 2.2 Expansion of a Quality Seed Production Systems																										
Outcome:	Smallholder crop production safeguarded through enhanced seed system security (including value addition for smallholder farm and community-level seed multiplication enterprises and development of public-private partnerships (PPPs) for quality seed distribution)																									
Outputs:																										
1. A formal plant breeding programme developed (<i>cf. Project 2.1</i>) and basic seed centres established throughout Sudan by ARC.																										
2. A uniform and certified seed system designed and introduced; and a community-based seed multiplication approach (piloted by NGOs) further tested and demonstrated to all stakeholders of the seed system (including revolving seed loans/seed bank schemes and seed growers' groups (established through FFS approaches)) – ensuring that smallholder farmers participate at all stages.																										
3. Market-oriented approach to seed processing and supply promoted through the capacity development of value chains and PPPs to establish and strengthen supply linkages between ARC, community-based seed growers' groups, private sector seed processors/merchants and smallholder farmers.																										
4. FFSs implemented to empower seed growers' groups to become registered as "producer organizations" and improve their member's access to seed production and processing knowledge and skills through the testing and validation of new and improved crop varieties (<i>cf. Project 2.1</i>) and post-harvest management technologies and practices.																										
5. Capacity of the National Seed Administration developed to improve seed field inspection and certification along the respective value chains.																										
Implementing Partners																										
<ul style="list-style-type: none"> • MoAI • ARC 		Duration: 36 months <table border="1"> <thead> <tr> <th colspan="2">Cost Estimate</th> </tr> <tr> <th>FAO Cost Categories</th> <th>USD</th> </tr> </thead> <tbody> <tr> <td>Personnel</td> <td>900 000</td> </tr> <tr> <td>Contracts</td> <td>1 660 000</td> </tr> <tr> <td>Travel</td> <td>120 000</td> </tr> <tr> <td>Training</td> <td>950 000</td> </tr> <tr> <td>Expendable procurement</td> <td>1 850 000</td> </tr> <tr> <td>Non-expendable procurement</td> <td>500 000</td> </tr> <tr> <td>Technical support services</td> <td>120 000</td> </tr> <tr> <td>General operating expenses</td> <td>180 000</td> </tr> <tr> <td>Support costs</td> <td>820 000</td> </tr> <tr> <td>Total</td> <td>7 100 000</td> </tr> </tbody> </table>	Cost Estimate		FAO Cost Categories	USD	Personnel	900 000	Contracts	1 660 000	Travel	120 000	Training	950 000	Expendable procurement	1 850 000	Non-expendable procurement	500 000	Technical support services	120 000	General operating expenses	180 000	Support costs	820 000	Total	7 100 000
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Beneficiaries																										
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FAO Strategic Objective No: 2 – "Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner"																										

	Long-term Programme 2.3 Promoting Climate-smart Smallholder Agricultural Production through Improved Adaptive Research and Participatory Extension Systems	
	Outcome: Smallholder crop and livestock productivity and the value of agricultural products increased through the adoption of improved and sustainable climate-smart technological innovation and management and “group farming” practices (e.g. agroforestry, alternative rural energy sources, conservation agriculture, DRR, farm and agribusiness management, food nutrition, food safety, gender dynamics, integrated livestock production, integrated pest and disease management (IPM), integrated plant soil nutrient management (IPSNM), on-farm water management (OFWM) and water harvesting and other good agricultural practices (GAPs)) – leading to reduced food insecurity, malnutrition and poverty at the household and community levels. Moreover, government and private agricultural extension services are capable of promoting new and improved climate-smart agriculture through adaptive research and participatory learning approaches.	
Outputs:		
Component 1. Public-private Participatory Extension Services (USD 4.2 million)		
1.1 Mapping and institution assessment of MoAI's and MoLFR's, NGOs', civil society organizations' (e.g. research institutions, universities and agricultural schools) and private sector extension services throughout Sudan, with recommendations for institutional strengthening at all levels (especially with regard to updating knowledge in agricultural climate change adaptation and modern participatory extension methods).		
1.2 Establishment of a reformed and decentralized agricultural extension service – co-managed by public, private and civil society service providers (monitored by State Ministries of Agriculture) and founded on proven demand-led, market-oriented, and group-based adaptive research and participatory learning approaches (e.g FFSs and JFFLSs).		
1.3 Capacity development of state and local-level government, civil society and private agricultural service providers to effectively deliver climate-smart agriculture extension messages to smallholder men and women farmers across all agro-ecological and livelihood zones – according to the recommendations of the aforementioned institutional assessment.		
Component 2. Farmer field School (FFS) Programmes (USD 24.8 million)		
2.1 Development of “state FFS programmes” across 14 states (<i>not including those four states assisted by SPCRP-CB</i>) for the promotion of climate-smart agriculture techniques across all agro-ecological and livelihood zones and along selected commodity chains (including: agro-ecological zoning, curriculum development and training of master trainers).		
2.2 Implementation of men and women FFSs across 14 states for the testing, validation, replication and up-scaling of climate-smart agriculture techniques (including training of FFS Facilitators, mobilizing, guiding and monitoring of FFSs in the adaptive research and/or learning of one or more new and improved technologies and practices, FFS graduation ceremonies and champion farmers’ fora).		
2.3 Resource-poor smallholder men and women farmers empowered to establish “producer organizations” through participation in FFS networks for “group farming” purposes (e.g. seed processing and storage, input supply, machinery purchase and hire and post-harvest handling and storage).		
Implementing Partners	Duration: 60 months	
	Cost Estimate	
	FAO Cost Categories	USD
	Personnel	5 810 000
	Contracts	4 020 000
	Travel	1 880 000
Beneficiaries	Training	2 980 000
• Extension staff of state-level Ministries of Agriculture and Livestock	Expendable procurement	8 990 000

	<ul style="list-style-type: none"> • Field coordinators and social mobilizers of local NGOs • Technicians, salespersons and collectors of private sector service providers • Agricultural teachers and students of universities and agricultural schools • Producer organizations, farmers' and pastoralist unions and farmers' and pastoralist groups 	<table border="1"> <tr><td>Non-expendable procurement</td><td>820 000</td></tr> <tr><td>Technical support services</td><td>160 000</td></tr> <tr><td>General operating expenses</td><td>960 000</td></tr> <tr><td>Support costs</td><td>3 340 000</td></tr> <tr><td>Total</td><td>28 960 000</td></tr> </table>	Non-expendable procurement	820 000	Technical support services	160 000	General operating expenses	960 000	Support costs	3 340 000	Total	28 960 000																
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	Short-term Project 2.4 Support to the Private Sector in the Testing and Verification of Appropriate Small-scale Farm Tools and Machinery for Rainfed Agriculture																											
	Outcome:	Supply chains developed for appropriate small-scale farm tools and machinery for smallholder rainfed farmers																										
	Outputs:	<ol style="list-style-type: none"> 1. Analysis of the smallholder rainfed farming sector in Sudan, with recommendations for improvements in the availability of appropriate farm tools and machinery required for the adoption of climate-smart agriculture (e.g. agroforestry, conservation agriculture, integrated livestock production, IPM, IPSNM and OFWM). 2. Mapping and institutional assessment of manufacturers, importers and retailers of small-scale farm tools and machinery in Sudan; and quality assessment of those products, with recommendations for improvement (including research and development and linkages with overseas' manufacturers and suppliers). 3. Linkages developed and partnerships forged between existing and potential private sector manufacturers and suppliers of recommended small-scale farm tools and machinery in Sudan with established manufacturers and suppliers of quality tools and machinery from Brazil, China, India, South Africa and/or Turkey in order to enhance research and development in the former – through South-South Cooperation mechanisms. 4. South-South Cooperation partnerships monitored and reinforced or modified where necessary – ensuring that the interests of groups of men and women smallholder rainfed farmers in Sudan are best served by the research and development initiatives of the private sector. 																										
	Implementing Partners	<p>Duration: 24 months</p> <table border="1"> <tr><td>Cost Estimate</td><td></td></tr> <tr><td>FAO Cost Categories</td><td>USD</td></tr> <tr><td>Personnel</td><td>60 000</td></tr> <tr><td>Contracts</td><td>10 000</td></tr> <tr><td>Travel</td><td>300 000</td></tr> <tr><td>Training</td><td>20 000</td></tr> <tr><td>Expendable procurement</td><td>5 000</td></tr> <tr><td>Non-expendable procurement</td><td>5 000</td></tr> <tr><td>Technical support services</td><td>30 000</td></tr> <tr><td>General operating expenses</td><td>12 000</td></tr> <tr><td>Support costs</td><td>58 000</td></tr> <tr><td>Total</td><td>500 000</td></tr> </table>			Cost Estimate		FAO Cost Categories	USD	Personnel	60 000	Contracts	10 000	Travel	300 000	Training	20 000	Expendable procurement	5 000	Non-expendable procurement	5 000	Technical support services	30 000	General operating expenses	12 000	Support costs	58 000	Total	500 000
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	Beneficiaries	<ul style="list-style-type: none"> • Smallholder men and women farmers • Existing and potential private sector manufacturers and suppliers of small-scale farm tools and machinery in Sudan 																										
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Intervention Area 3. Natural Resource Management and Livelihoods Response, Protection and Recovery	
Objective	To secure the access and sustainable management of natural resources (i.e. land, water, forests and rangelands) by pastoral, agropastoral and forest-dependent communities prone to recurring hazards, and enhance the protection and recovery of livelihoods of vulnerable rural communities at risk to natural and man-made threats and crises.
Rationale and Justification:	
<p>Sudan is affected by the fluctuation in magnitude and distribution of the precipitation during the rainy season, with repeated dry spells during the cultivation season that have negative effects on food production and people's livelihoods. The food security and undernourishment situation in Sudan is reported to be deteriorating in the last few years. This is mainly attributed to the rainfall variability, high food prices, and the long decades of conflict and unrest. Food insecurity is the most common manifestation of such situations.</p> <p>In the 2011/2012 production season, and due to the drought cycle that hit the Horn of Africa, food production shortages were combined with insecurity in South Blue Nile, South Kordofan, some areas in Darfur, and Abyei, resulting in food insecurity and escalating food prices due to inflation and local currency devaluation. Insecurities in productive southern areas of South Kordofan and Blue Nile State have a direct impact on the traditional seasonal north-south migration of nomadic cattle herders. Lack of access to these grazing lands is increasing the concentration of animals in Sudan. As a result, competition over meagre resources of water and grazing pasture may contribute to local disputes over natural resources. Furthermore, large herds in small areas are likely to lead to overgrazing and increased susceptibility to communicable diseases, and will deteriorate the general livestock body condition. Similarly, each crop production zone or system has its own climate endowments and therefore, livelihoods in those areas will be affected differently. The eastern and western regions of the country recorded poor to below average harvests, which has exacerbated the food insecurity and malnutrition cases among the vulnerable groups of the rural communities, particularly the displaced pastoral groups. The erratic and low precipitation during drought years has resulted in deep water table, which in-turn made access to drinking water for human and livestock a problem. This is in addition to the crowdedness around water points, which can make people and livestock vulnerable to diseases and epidemics. This competition over meagre water resources may hatch into poor hygiene and contaminated water, particularly for vulnerable members of households, i.e., children, the elderly and women.</p> <p>The outmigration of strong members of the rural communities for gold mining contributed further to the low productivity of crops and livestock. The erratic rainy season has a push effect on the human resources of the rural rainfed areas to urban settings, where the urban population has increased tremendously over the last decade, while urban poverty has become a feature in main towns. This is further exacerbated by the new emerging income opportunities in the gold mining areas, which are more attractive to young members of the rural communities since it pays better than seasonal rainfed cultivation. Food production and food security in rural rainfed areas are associated with repeated risks of long dry spells, localized floods, localized pests infestation, etc., that many times, have caused damage, loss and depletion of basic assets of rural households.</p> <p>The recurrent droughts in rural areas of the country have a direct impact on people's livelihood, survival and low productivity for crops, livestock, trees and range. Drought has a direct effect on the productivity of rainfed crops. It also predisposes the deterioration of livestock productivity as a result of poor pasture, leading to movement of herds to longer distances in search of pasture and water. The indigenous and palatable pasture seeds' stock are depleted as they are grazed before the flowering stage. The low productivity and production in rural areas resulted in a shortage of supply of food products to the markets. As a corollary, the sustainable flow of grains and livestock products diminished, which pushed investment away to sustainable irrigated sectors, real estate, services and industries in urban areas. All of these factors fed the continuation of the poverty cycle: malnutrition and food insecurity increases, indigenous social safety nets are eroded, while coping strategies, along with the general resilience to shock weaken. On the other hand, urban migrants competing with urban dwellers for income opportunities and basic services of health, education, and water, has resulted in more financial resources directed to urban settings.</p>	
The 2011 "Doha Document for Peace in Darfur" paved the way for the Government of Sudan and United Nations to prepare a six-year development strategy for the	

Darfur Region in early 2013. The “Developing Darfur: A Reconstruction and Recovery Strategy (DDS)” aims “at realizing short-term and medium-term objectives in the fields of rehabilitation, reconstruction, construction and development taking into consideration urgent needs and the need to work out the basis for long-term development – giving special attention to programmes and projects which will enable Darfur to speed up the transition from relief to development”. In support of DDS, FAO, the Darfur Land Commission and Darfur State Ministries of Agriculture and Animal Resources prepared a “Programme for Agricultural Recovery, Reconstruction and Development in the Darfur Region (June 2013), which comprises one “capacity development subprogramme” (which has been incorporated as a cross-cutting element of CPF/PoA for Sudan) and three “model investment projects”, two of which have been incorporated in this PoA Intervention Area 3, i.e. “recovery of food security and livelihoods of vulnerable farming and agropastoral communities in rainfed catchment areas” and “recovery of food security and livelihoods of vulnerable pastoral agropastoral communities along migratory stock routes”.

FAO would build on lessons learned from completed and ongoing projects, namely: DCPSF-funded “increasing cooperation between conflicting communities through promoting dialogue and enhancing livelihoods and NRM in North and West Darfur States” (2009-2014; USD two million); CIDA-funded and FAO and UNIDO-implemented “IFSP in Kassala State” (2012-2016; USD 5.92 million (FAO component)); UK/DFID-funded and FAO, UNICEF and WFP-implemented “Joint resilience-building project in Kassala” (2014-2017; USD 5.8 million (FAO component)); TCP-funded “Technical assistance to support food security and livelihoods of the pastoralist groups in West Kordofan State (one year; USD 500 000); and Government of Qatar-funded “Recovery of livelihoods of vulnerable pastoralist and agropastoralist households in the Darfur Region” (18 months; USD 2.3 million) African Development Bank-funded “Multinational Drought Resilience and Sustainable Livelihoods Programme – Project II (Sudan Component) (60 months; USD 30 million); as well as short-term humanitarian food security restoration and livelihood protection projects funded by various multilateral and bi-lateral donors in conflict and drought-affected areas of Sudan.

Programmes and Projects

Long-term Programme (of discreet subsectoral components) 3.1 Recovery of Food Security and Livelihoods of Vulnerable Farming and Agropastoralist Communities in the Darfur Region	
Outcome:	Recovery of food security and livelihoods of vulnerable farming and agropastoralist communities in targeted <i>wadi</i> catchment areas of the Darfur Region (including IDPs, refugees, returnees and host communities) through an increase in crop, livestock and forestry productivity and production, improved management of natural resources (in particular land, water and forests) and adoption of voluntary guidelines for land tenure (VGGT).
Outputs:	
<p>Component 1. Catchment Planning (USD 3.1 million)</p> <p>1.1 <i>Wadi</i> catchment areas selected, biophysical and socio-economic baseline surveys completed and community action plans prepared with full consultation of all stakeholders (i.e. State Ministries of Agriculture, FNC, local NGOs and civil society organizations (CSOs), native administrations, farmers and pastoralist unions, IDP representatives, etc.).</p> <p>1.2 Decision making structures (of different groups of “natural resource users”) in selected catchment areas mapped; Catchment Management Forum established through engagement of key institutional stakeholders responsible for legal, technical and policy direction and oversight to NRM; and Inter-ethnic Village Committees and community-based “dialogue platforms” reconvened, established and strengthened.</p> <p>1.3 Community-based catchment management plans (including integrated water management plans) prepared and adopted by all stakeholders; and “user groups” established/strengthened to engage in land-use planning and NRM processes.</p> <p>Component 2. VGGT and Peacebuilding in Catchment Areas (USD 5.0 million)</p> <p>2.1 Participatory land-use plans and VGGT across subcatchments prepared and adopted by all stakeholders.</p> <p>2.2 Inter-ethnic Village Committees and “dialogue platforms” supported to oversee the implementation of land-use plans, preparation and adoption of agreements/conventions (such as rules of application, control and enforcement) and resolution of any local conflicts.</p>	

	<p>2.3 Catchment Management Forum and Inter-ethnic Village Committees supported for the resettlement of IDP farmers and agropastoralist in catchment areas.</p> <p>Component 3. Agricultural Production and Post-harvest Management in Catchment Areas (USD 30.1 million)</p> <p>3.1 Community water points and on-farm soil conservation and water management structures/systems rehabilitated and constructed through community-based methodologies (primarily for small-scale irrigation purposes) and in line with integrated water management plans.</p> <p>3.2 Existing community-based seed multiplication system upgraded and expanded through strengthening/establishment of seed grower groups, adoption of improved post-harvest management techniques, and linkages to public and private producers of quality foundation seeds (e.g. ARC) and private seed merchants.</p> <p>3.3 Groups of smallholder men and women farmers adopt new and improved climate-smart crop production techniques through the design and implementation of FFS programmes (<i>cf. Project 2.3</i>) across catchment areas to test, validate, replicate and up-scale such technologies and practices such as rainwater harvesting, on-farm water management, conservation agriculture, integrated pest and disease management and improved food nutrition.</p> <p>3.4 Pastoralists and agropastoralists of catchment areas serviced by up-graded and expanded community animal resources development (CARD) services, including improved animal equipment and drug delivery models, training/refresher training, equipping, cost-recovery and business management, and networking of self-supporting community animal resources development associates (CARDAs).</p> <p>3.5 Producer organizations established from individual or networks of seed grower groups, graduated FFSs and CARDAs and guided in business management and access to micro-finance through the implementation of farmer business schools (FBSs) and junior farmer field and life schools (JFFLs).</p>																																								
	<p>Component 4. Forest Management in Catchment Areas (USD 8.7 million)</p> <p>4.1 Degraded FNC forest reserves restored – especially on sandy <i>qoz</i> lands adjacent to <i>wadis</i> – through the <i>taungya</i> community management approach.</p> <p>4.2 Community-based forest and range management systems adopted by respective user groups to address deforestation on <i>qoz</i> lands owned under the <i>hakura</i> system, increase forestry and livestock production and improve fuel-efficient rural energy systems on a sustainable basis.</p>																																								
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Long-term Programme 3.2 Drought Resilience and Recovery of Livelihoods of Vulnerable Pastoralist and Agropastoralist Households along Migratory Stock Routes in Sudan	
Outcome:	Recovery of food security and livelihoods and enhanced drought resilience of vulnerable pastoral and agropastoralist families and communities along targeted migratory stock routes of the Darfur, Kordofan and eastern regions through an increase in livestock productivity and production, improved management of natural resources (in particular land, water and rangelands) and adoption of VGGT.
Outputs:	
<p><i>Component 1. VGGT and Peacebuilding (USD 8.5 million)</i></p> <p>1.1 Key stock routes selected, biophysical and socio-economic baseline surveys completed and community action plans prepared with full consultation of all stakeholders (i.e. State Ministries of Agriculture and Animal Resources, local NGOs and CSOs, native administrations, farmers and pastoralist unions, etc.).</p> <p>1.2 Decision making structures (of different groups of “natural resource users”) along selected stock routes mapped; and Inter-ethnic Village Committees and community-based “dialogue platforms” reconvened, established and strengthened.</p> <p>1.3 Participatory land-use plans and VGGT along stock routes prepared and adopted by all stakeholders.</p> <p>1.4 Inter-ethnic Village Committees and “dialogue platforms” supported to oversee the implementation of land-use plans, preparation and adoption of agreements/conventions (such as rules of application, control and enforcement) and resolution of any local conflicts along selected stock routes.</p> <p>1.5 Blocked stock routes opened and all stock routes physically demarcated along corridors agreed by all stakeholders (i.e. Native Administration, Nomads Commission, Farmers and Pastoralist Unions, local government authorities, State Ministries of Agriculture, etc.).</p>	
<p><i>Component 2. Natural Resource Management along Stock Routes (USD 12.5 million)</i></p> <p>2.1 Access to animal drinking water supplies improved through the rehabilitation and construction of community water harvesting structures and water points according to community-based methodologies and agreed land-use plans.</p> <p>2.2 Community-based range management systems adopted by pastoralists and agropastoralists to address land degradation and increase livestock production on a sustainable basis – in areas demarcated on land-use plans agreed (including protection of water points).</p>	
<p><i>Component 3. Animal Health and Production along Stock Routes (USD 8.8 million)</i></p> <p>3.1 Pastoralists and agropastoralists serviced by up-graded and expanded CARD services, including improved animal equipment and drug delivery models, training/refresher training, equipping, cost-recovery and business management, and networking of self-supporting CARDAs (based at agreed strategic locations, e.g. key water points, markets and slaughterhouses, and road intersections).</p> <p>3.2 Applied research in drought-tolerant pasture varieties jointly by the Agricultural research Corporation, Animal resources Corporation and groups of agropastoralists (e.g. FFSs).</p> <p>3.3 Groups of smallholder men and women agropastoralists testing and adopting new and improved climate-smart livestock production and rural energy techniques through the design and implementation of FFS programmes (<i>cf. Project 2.3</i>) to test, validate, replicate and up-scale technologies and practices such as improved cross-breeding, fodder production, cut and carry feeding systems, fuel efficient stoves and improved food-based nutrition.</p> <p>3.4 The concept of private smallholder and community ranches piloted in selected areas of stock routes – according to agreed land-use plans.</p>	
<p><i>Component 4. Livelihoods Support through Post-Harvest Management (USD 7.5 million)</i></p> <p>4.1 Producer organizations established from individual or networks of graduated FFSs and CARDs and trained in business management and guided in access to micro-finance through the implementation of FBSs and JFFLS.</p> <p>4.2 Groups of women and youths (of “producer organizations”) adopt post-harvest income-generating technologies to reduce losses and diversify livelihoods (e.g. grading, processing, packaging, storage and marketing facilities and means of local transportation), including support to and registration of producer groups</p>	

<p>– through the implementation of FBSs and JFFLS.</p> <p>4.3 PPP-driven market information systems established along stock routes to improve the marketing of animal products processed by producer organizations.</p>																								
Implementing Partners <ul style="list-style-type: none"> • DRA; and DLC • State Ministries of Agriculture and Animal Resources • Native Administration, Nomads Commission, Farmers and Pastoralist Unions and local government authorities • International and national NGOs • IFAD 		Duration: 60 months																						
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<p>Long-term Programme (of three state-wide medium-term projects) 3.3 Resilience Building for Malnourished Rural Families Prone to Extreme Natural and Economic Shocks (e.g. Droughts, Floods, Pests, Diseases and Soaring Food Prices)</p> <p>Outcome: The resilience of poor, food insecure and malnourished rural communities (particularly women and children) of three severely malnourished states is strengthened to survive extreme shocks (such as droughts floods, pests and diseases) through enhanced management of natural resources, more nutritious diets and increased nutritious food production.</p> <p>Outputs:</p> <ol style="list-style-type: none"> 1. Community-owned action plans to strengthen resilience to droughts, floods, pests and diseases are developed by CBOs through support to Inter-ethnic Village Committees, gender-equality community dialogue platforms and local CSOs and NGOs. 2. Water harvesting and storage structures (e.g. surface and subsurface dams, <i>hafirs</i> and boreholes) and on-farm water management systems rehabilitated and constructed through community-based methodologies (for livestock and human consumption and irrigated crops). 3. Villages with improved and sustainable access to land and water through strengthened institutional frameworks and improved community-based water management and range management systems. 4. Groups of smallholder men and women agropastoralists and farmers adopting new and improved climate-smart integrated homestead farm production and rural energy-saving techniques through the design and implementation of FFS programmes (<i>cf. Project 2.3</i>) to test, validate, replicate and up-scale technologies and practices for improved household consumption and income generation, such as small-scale horticulture (i.e. fruits, vegetable and legumes), penned/caged small ruminants and poultry, cut and carry animal feed systems, fuel-efficient stoves and diversified diets/improved food nutrition. 																								

Implementing Partners <ul style="list-style-type: none">• State Ministries of Agriculture and Animal Resources; and Health• International and national NGOs• UNICEF and WFP	Duration: 48 months	
	Cost Estimate	
	FAO Cost Categories	USD
	Personnel	4 000 000
	Contracts	2 680 000
	Travel	660 000
Beneficiaries <ul style="list-style-type: none">• Vulnerable smallholder men and women farmers and agropastoralists• Inter-ethnic Village Committees and community dialogue platforms; and local CSOs and NGOs• CBOs; and men and women farmers' groups/producer organizations• Technical and field staff of State Ministries of Agriculture and Animal Resources and Health	Training	1 740 000
	Expendable procurement	4 820 000
	Non-expendable procurement	470 000
	Technical support services	260 000
	General operating expenses	769 000
	Support costs	2 001 000
	Total	17 400 000
FAO Regional Initiative: “Building resilience to enhance food security and nutrition”	FAO Strategic Objective No: 5 – “Increase the resilience of livelihoods from disaster”	

Medium-term Project 3.4 Enhanced Resilience for Forest-dependent Communities in the Gum Arabic Belt																							
Outcome:	Address the drivers of deforestation and forest degradation while enhancing the resilience of vulnerable tree-dependent communities (particularly women gum Arabic collectors and processors) – in preparedness for a national REDD+ Strategy.																						
Outputs: <ol style="list-style-type: none"> 1. Assess land use, land-use change drivers, and forest law, policy and governance and its relations to forest ownership and use – with recommendations for strengthening institutional frameworks that would build the resilience of vulnerable forest users (<i>cf. Project 1.4</i>) 2. Test and validate community-based REDD+ strategy options, e.g. sustainable charcoal production, increased firewood efficiency, renewable energy production, increased gum Arabic production, reforestation and forest conservation, community-based forest and range management, and crop intensification and balanced livestock production through integrated adaptive research approaches (e.g. men and women FFSs). 3. Groups of smallholder tree-dependent people adopting new and improved REDD+ agroforestry and agropastoral production and rural energy techniques through the design and implementation of FFS programmes (<i>cf. Project 2.3</i>) to replicate and up-scale the aforementioned and proven REDD+ technologies and practices. 4. REDD+ implementation framework developed to monitor the social and environmental impacts of the REDD+ strategy options, including the minimization of risks and threats to further rural poverty, food and nutrition insecurity, carbon emissions, etc. 																							
Implementing Partners	Duration: 48 months																						
<ul style="list-style-type: none"> • MoEFPD, MoAI and MoLFR; and FNC • State Ministries of Agriculture and Animal Resources • Civil society organizations (i.e. research and academic institutions and farmers and pastoralist unions) • UNEP and UNDP; and the World Bank • Vulnerable smallholder men and women agropastoralists; and tree-dependent people 	Cost Estimate <table> <thead> <tr> <th>FAO Cost Categories</th> <th>USD</th> </tr> </thead> <tbody> <tr> <td>Personnel</td> <td>1 350 000</td> </tr> <tr> <td>Contracts</td> <td>960 000</td> </tr> <tr> <td>Travel</td> <td>230 000</td> </tr> <tr> <td>Training</td> <td>620 000</td> </tr> <tr> <td>Expendable procurement</td> <td>1 720 000</td> </tr> <tr> <td>Non-expendable procurement</td> <td>170 000</td> </tr> <tr> <td>Technical support services</td> <td>160 000</td> </tr> <tr> <td>General operating expenses</td> <td>276 000</td> </tr> <tr> <td>Support costs</td> <td>714 000</td> </tr> <tr> <td>Total</td> <td>6 200 000</td> </tr> </tbody> </table>	FAO Cost Categories	USD	Personnel	1 350 000	Contracts	960 000	Travel	230 000	Training	620 000	Expendable procurement	1 720 000	Non-expendable procurement	170 000	Technical support services	160 000	General operating expenses	276 000	Support costs	714 000	Total	6 200 000
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FAO Regional Initiative: “Sustainable small-scale agriculture for inclusive development”	FAO Strategic Objective No: 2 – “Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner”																						

Intervention Area 4. National, Regional and International Control of Threats to Sudanese Food Chains	
Objective	To improve Sudan's capacity for preparedness, early warning, controlling and monitoring local, national and international threats to the country's food chains, in particular transboundary animal diseases (TADs) and low-quality, contaminated and condemned foodstuffs.
Rationale and Justification:	
There are two threats along Sudanese food chains where producers and consumers alike are at considerable risk to their livelihood and health, namely TADs and unsafe food.	
<p><i>Transboundary Animal Diseases</i></p> <p>Livestock production forms an important component of the Sudanese economy, representing 60 percent of the agricultural GDP (and 22 percent of the national GDP) with a value of USD 18.2 billion in 2009. It is estimated that there are more than 105 million heads of cattle, sheep, goats and camels in the country. Most of the animal resources are owned by nomadic tribes ("pastoralists") and less by small-scale sedentary farmers ("agropastoralists") in the rainfed traditional farming areas. The livestock subsector provides livelihood for 14 to 20 percent of the total population and contributed 56 percent of agricultural export revenues in 2012 (compared to an average of 27 percent between 1997 and 2009).</p> <p>In the past, Sudan has encountered repeated and extensive outbreaks of high impact TADs including foot-and-mouth disease (FMD), lumpy skin disease, sheep and goat pox, Rift Valley fever, pest des petite ruminants and others. Production diseases such as brucellosis and mastitis are also widespread and prevalent. These TADs present significant economic burdens to farming communities with serious livelihood implications. One of the main drivers of emergence, spread and spill-over is the movement of animals and their products – especially given the migratory nature of pastoralism in Sudan. There is therefore a high risk that such diseases may spread from any one of the country's seven neighbouring countries. Emergency and annual vaccination campaigns are the major control measures used by the national veterinary services to minimize the impacts of disease outbreaks – often with support of FAO. The challenges from introduction of new strains of viruses (e.g. recent SAT2 FMD outbreaks), lack of coherent disease control policy, under funding of veterinary services and lack of holistic risk-based surveillance and control strategies pose major hindrances to the effectiveness of the veterinary services and their surveillance and control systems.</p> <p>The Emergency Centre for Transboundary Animal Diseases (ECTAD) was established in 2006 as FAO's response to combat avian and human influenza (AHI) introduction and spread in the world. Through the FAO/ECTAD programmes, countries such as Egypt have benefited from a substantial technical and financial assistance, whereby the institutional capacity of the veterinary services has been significantly improved, epidemiological networks and capacity established in most of the country's governorates, considerable laboratory diagnostics capacity created, both at national and subnational levels, and capacities for implementation biosecurity measures in poultry farms and other bird congregation points strengthened.</p> <p>FAO-ECTAD Eastern Africa, also established in 2007 to address HPAI threat in East Africa (including Sudan, South Sudan, Djibouti, Eritrea, Ethiopia, Somalia, Kenya, Uganda, Tanzania, Rwanda, Burundi and DR Congo) has over the last seven years moved beyond HPAI to address other TADs of high priority in the region. The ECTAD Eastern Africa office supports the three major animal health thematic networks for the twelve countries. At the moment, Sudan is the duty chairperson of the Chief Veterinary Officers' Network. The purpose of the networks is to coordinate and harmonize control of TADs – as the region is faced by similar TADs. Through the "Vet Gov" programme jointly implemented by African Union Inter-African Bureau for Animal Diseases (AU-IBAR), World Organization for Animal Health (OIE) and FAO, FAO-ECTAD has supported training of livestock policy-hub focal persons in each country, but more is required to support policy development and generation of evidence. Building on the lessons learned and good practices from AHI programmes, FAO through ECTAD offices in Egypt, Nairobi and Bamako is currently moving towards planning to mount a project on emerging pandemic threats (EPT-2) of other important TADs in identified epizones of the Near East Region. The same principle could hold true in combating high-impact TADs of economic significance and with serious livelihood implications in Sudan. ECTAD Egypt and Eastern Africa offices, will coordinate the work in Sudan</p>	

with support of the AU-IBAR and the IGAD Centre for Pastoral Areas and Livestock Development (ICPALD) which are currently implementing the USAID-funded “Standard Methods and Procedures in Animal Health (SMP-AH)” and European Union-funded “Surveillance of Trade-Sensitive Diseases (STSD)” projects aiming to contribute addressing TAD’s issues within the IGAD Region. FAO will also focus more on up-scaling validated farm-level biosecurity models and community-animal health and surveillance services to improve animal health and production at the grassroots level.

Food Safety

The Sudanese Standards and Metrology Organization (SSMO) was established in 1992 and, since then, the Organization has taken over the full responsibility of issuing all commodity standards including food. SSMO issued more than 1 000 food standards following the CODEX and ISO recommendations. SSMO also enforced the 2008 Act, which gives the organization the power to inspect all food commodities produced locally, as well as imported or exported. The bulk of work of food safety in Sudan now is carried by SSMO and the standards issued cover all types of commodities, code of practices, guidelines, sanitary requirements and measures for food establishments and transportation vehicles.

No studies have been carried out to estimate the health impact of food-borne diseases in Sudan. Disease outbreaks have affected productivity, income generation and raised expenditure on health. Failure to meet safety requirements of importing countries threatened agricultural products. Improper control of food hygiene and safety results in the occurrence of many cases of food-borne infections and intoxications. The most common diseases are those caused by bacterial contamination such as salmonella, staphylococcus, bacillus and clostridium food poisoning, also typhoid and paratyphoid infections are common.

Standards are prepared by technical committees according to well-established procedures of the SSMO. These technical committees have members from various stakeholders, which include: industries, business, research centres, universities, ministries, labour associations, consumer protection associations and experts to guarantee a wide range of consultation. The main challenges faced in Sudanese food safety are: (i) human resource capacity is inadequate in terms of food safety management tools such as hazard analysis and critical control point (HACCP) and risk analysis amongst food inspectors and food safety managers in micro, small and some medium enterprises; (ii) statistics available on food-borne disease in Sudan are not well analysed and documented; (iii) the equipment available in food testing laboratories are outdated; (iv) high costs involved in compliance to market requirements; (v) lack of harmonization in food-related legislations; (vi) lack of consumer confidence; (vii) maintaining food quality (including provision of efficient laboratory services); (viii) knowledge and skills in current/and emerging food safety issues; (ix) surveillance of food-borne diseases and disease outbreaks; (x) penalties for unhygienic premises and unsafe food are low and enforcement is weak; and (xi) coordination of food safety inspection and monitoring activities is difficult.

However, Sudan has recognized the need to have an effective and coordinated Food Safety Management System and has initiated consultation among regulatory bodies to facilitate commitment on the establishment of a coordinating body that will promote effective integrated and coordinated system.

FAO would build on lessons learned from completed and ongoing projects, namely: Codex Trust Fund-funded and joint FAO/WHO-implemented “Mycotoxin in Sorghum Project” (2013-2014); and TCP-funded “Surveillance and diagnosis of foot and mouth disease” (2011-2014; USD 491 000).

Programmes and Projects																								
Medium-term Project 4.1 Development of a National Transboundary Animal Diseases Surveillance and Control System																								
Outcome:	Significant reduction in the threat of outbreaks of transboundary animal diseases (TADs) and zoonosis in Sudan through an informed and effective surveillance and disease control strategy																							
Outputs: <ol style="list-style-type: none"> Enhanced risk perception and epidemiological capacity at the central level and surveillance centres at the state level and border entry points. Improved national disease early warning/early response systems, particularly in border areas and along migratory stock routes. Improved veterinary laboratory diagnostic capabilities for major TADs, particularly in State Ministries of Agriculture and Animal Resources of international border areas. Trained and skilled government and private veterinarians at central, state and locality levels and at border entry points to handle appropriate disease surveillance and control operations – including the use of CARDAs for community-level surveillance, monitoring and reporting. Improved access to veterinary services required by agropastoralists and pastoralists, particularly in remote areas – including the establishment of CARDA networks. Livestock disease information database established at national and state levels and communicated to all stakeholders – and linked to FAO-ECTAD's proposed regional TAD database. Support to the Sudan Livestock Policy-Hub for use of livestock data for effective livestock and TADs control policies, strategies and preparedness plans for TADs (including prophylactic and emergency vaccination plans for major diseases) and used effectively by members of the Sudan Veterinary Medical Association, State Ministries of Agriculture and Animal Resources and CARDA and CAHW networks – and linked to FAO/ECTAD's proposed regional TAD surveillance strategies and preparedness plans. Biosecurity at farm and local levels strengthened through support to grassroots capacity development for the demonstration and adoption of improved biosecurity measures at the most-risk nodes of identified epizones through the development of CARD services and implementation of FFSs. Cross-border coordination mechanism on TADs control established with relevant countries within IGAD region and North Africa including regional networks. 																								
Implementing Partners <ul style="list-style-type: none"> MoLFR Sudan Veterinary Medical Association Pastoralist Unions FAO-ECTAD (Eastern Africa and Egypt) Beneficiaries <ul style="list-style-type: none"> Livestock owners, agropastoralist and nomadic pastoralists State Ministries of Agriculture and Animal Resources Private veterinarians CBOs; and CARDAs Exporters of livestock and animal products FAO Regional Initiative: "Building resilience to enhance food security and nutrition"																								
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General operating expenses	720 000																							
Support costs	1 360 000																							
Total	14 900 000																							

	Medium-term Project 4.2. Enhanced Sanitary and Phytosanitary Control and Food Quality and Safety in Sudan	
Outcome:	Government regulatory and institutional capacity for sanitary and phytosanitary (SPS) control and food safety is made integral and strengthened, along with stronger food value chains, increased visibility of food safety, improved border inspections and increased confidence.	
Outputs:		
1. Government regulatory and institutional capacity for SPS control and food safety is fully mapped, assessed and recommendations made to inform food safety policy.		
2. Integrated and strengthened institutionalization of food safety and quality control, including the preparation of relevant policies and regulatory frameworks.		
3. Strengthened SPS analysis capacity across Government agencies to be able to support the development of food safety measures and standards to meet CODEX and WTO international standards, including the upgrading of a food laboratory network along the requirements of ISO 17025.		
4. Capacity developed for preventative risk-based approaches involving different actors in the food chains, including the strengthening of food inspection systems and assistance to private sector companies, consumer associations, etc. in food control.		
5. Capacity in identified sectors of food industry and amongst non-government stakeholders to enhance food safety and facilitate market access, including increased public awareness and education on food safety and consumer health, as well as good agricultural practice and good hygienic practice.		
6. Strengthened capacity for certification and border inspections of imported foodstuffs and raw materials for the food industry.		
7. Establishment of an Arab Food Safety Authorities Network (ARFOSAN) so as to facilitate the electronic information exchange between food safety authorities in the field of food contaminants and food-borne infections and intoxications supported by Sudan.		
Implementing Partners		
<ul style="list-style-type: none"> • Federal MoH; and MoAI, MoLFR, MoEFPD, MoI and MoT • Sudanese Standards and Metrology Organization • SBEF and UoCAP • Sudanese Consumer Protection Association • WHO 		
Beneficiaries		
<ul style="list-style-type: none"> • Directorate of Environmental Health and Food Control of MoA • Policy makers and technical staff of Sudanese Standards and Metrology Organization • Faculty of Public and Environmental Health at the University of Khartoum • Members of the Sudanese Consumer Protection Association • Food processors, wholesalers, retailers and exporters • Residents of Sudan at larger (i.e. consumers of food) 		
FAO Regional Initiative: “Building resilience to enhance food security and nutrition” FAO Strategic Objective No: 4 – “Enable more inclusive and efficient agricultural and food systems at local, national and international levels”		

CONNECT OF CPF/POA OUTCOMES WITH GLOBAL, REGIONAL AND NATIONAL POLICIES/STRATEGIES

Programme/Project Component and Outcome CPF/PoA	ARP	CAADP	CPP	DFA/DDS	UNDAF	FAO	
	Mission Measure (a)	Pillars (& PS/PA) (b)	Outcome & Priority Intervention (c)	Pillar & Objective (d)	Output (e)	Strategic Objective (f)	Regional Initiative (g)
Intervention Area 1. Policy Development and Information Management							
1.1 Institutional Strengthening of Decision Makers in the Agriculture Sector					2.3	1	
1.1.1 Institutional assessment						1 & 6	FSN
1.1.2 Reforms of agriculture, food security & nutrition policies recommended		III (1)				1 & 6	FSN
1.1.3 Comprehensive capacity development programme adopted for funding	4	III (1)	5.1	1.2		1 & 6	FSN
1.2 Multistakeholder Platform for DRR and Crisis Management					1.2	5	
1.2.1 Improved awareness & understanding of disaster resilience						5	FSN
1.2.2 Inter-ministerial/multistakeholder consultative/decision making mechanism		III (1)				5	FSN
1.2.3 Federal & state-level platforms for multi-hazard risk monitoring		III (1)		1.2		5	FSN
1.2.4 Joint/integrated approaches & measures tested for drought resilience		III (1)				5	FSN
1.3 Food Security and Nutrition Policy and Programmes						1 & 5	
1.3.1 Effective cross-sectoral state-level food security institutional frameworks	4	III (4)		3.4	2.3	1	FSN
1.3.2 Capacity for state-level food security policy makers developed		III (1)		3.4		1	FSN
1.3.3 Functional national & state-level food security information systems	4	III (4)		3.4		1 & 5	FSN
1.3.4 Key food insecurity & vulnerability drivers better understood & linked						5	FSN
1.3.5 Participation of non-state actors promoted at federal & state levels	4	III (4)		3.4		1 & 5	FSN
1.4 National Forest Resources Assessment and Monitoring						2	
1.4.1 Institutional, managerial & technical capacity of FNC strengthened					1.2	2	FSN
1.4.2 National forest & natural resources assessment completed	6	I (6)				2	FSN
1.4.3 FNC strengthened in community-based forest management approaches	6	I (6)	1.2	3.7		2	FSN
1.4.4 FNC knowledge management, communication & advocacy strategies	6	I (6)	1.2	3.7		2	FSN
1.4.5 Awareness & knowledge of private sector in sustainable forest management	6	I (6)	1.2	3.7		2	FSN
1.5 Environment, Forestry & Climate Change Management Capacity Strengthening						2	
1.5.1 National Action Plan for the regional Great Green Wall Initiative finalized	6	I (6)		3.7		2	FSN
1.5.2 Sudan's preparedness for REDD+	6	I (6)		3.7		2	FSN
1.5.3 GEF programming	6	I (6)		3.7		2	FSN
1.5.4 National multiyear programme for FAO Committee on Forestry prepared	6	I (6)		3.7		2	FSN

CFP/PoA Programme/Project Component and Outcome	ARP	CAADP	CPP	DFA/DDS	UNDAF	FAO	
	Mission Measure (a)	Pillars (& PS/PA) (b)	Outcome & Priority Intervention (c)completed	Pillar & Objective (d)	Output (e)	Strategic Objective (f)	Regional Initiative (g)
1.6 Role for Private Sector Support to Smallholder Agriculture						4	
1.6.1 Participatory strategy for private sector support to smallholder farmers	7	IV (5)				4	SSA
1.6.2 Matrix & plan of action for UoCAP support to local service providers	7	IV (7)				4	SSA
1.6.3 Platform within SBEF for agribusiness linkages supporting smallholders	7	IV (7)				4	SSA
1.6.4 SBEF agribusiness information centre for local services/agro-industries	7	IV (7)				4	SSA
1.7 Food Security, Livelihoods and Economic Recovery Coordination					1.2	I & 5	
1.7.1 Functional agriculture & food security fora for FSL Cluster, DDS & UNDAF				III		1 & 5	FSN
1.7.2 HNO & SRP informed on needs/situation analyses		III (4)				5	FSN
1.7.3 Agriculture, food security & nutrition advocacy messages		III (4)				1 & 5	FSN
1.7.4 Humanitarian work plans & progress reports		III (4)				5	FSN
1.7.5 Humanitarian contingency plans prepared & shared		III (4)				5	FSN
1.7.6 Humanitarian partners' service delivery strengthened		III (4)				5	FSN
1.7.7 FAO's "Darfur Agric. Recovery Programme" advocated & resources mobilized				I, II & III		1	FSN
1.7.8 UNDAF revised & follow-up agriculture & food security support						1	FSN
Intervention Area 2. Crop Production and Agricultural Climate Change Adaptation							
2.1 CCA in Key Rainfed Food Crop, Fodder Crop and Pasture Varieties					2.3	4 & 5	
2.1.1 Institutional assessment of ARC	4	IV (1)	5.1	1.2		1 & 6	FSN
2.1.2 Capacity of ARC developed to implement plant breeding for CCA	4	IV (1)	5.1	3.4		5	FSN
2.1.3 Selection, hybridisation & breeding of drought & heat tolerant varieties	4	IV (1)	5.1	3.4		5	FSN
2.1.4 Foundation seed made available by ARC for private sector/CBO multiplication	7	IV (4)	5.1	3.4		4	SSA
2.2 Quality Seed Production System					1.1	2 & 4	
2.2.1 Formal plant breeding programme at basic seed centres	4	IV (4)	5.1	3.4		2	FSN
2.2.2 Uniform & certified system with community-based multiplication approach	7	II (7)	5.1	3.4		4	SSA
2.2.3 market-oriented approach to seed processing & supply through VCD	7	II (7)	3.4	3.6		4	SSA
2.2.4 Seed growers' groups empowered to "producer organizations"	2	II (2)	3.4	3.6		4	SSA
2.2.5 Capacity of National Seed Administration developed for field inspection	4	II (8)		1.2		2	FSN

CFP/PoA Programme/Project Component and Outcome	ARP	CAADP	CPP	DFA/DDS	UNDAF	FAO	
	Mission Measure (a)	Pillars (& PS/PA) (b)	Outcome & Priority Intervention (c)	Pillar & Objective (d)	Output (e)	Strategic Objective (f)	Regional Initiative (g)
2.3 Climate-smart Smallholder Agricultural Production through FFSs					1.1		
2.3.1 Public-private Participatory Extension Services:						2 & 4	
2.3.1.1 Mapping & institutional assessment public & private agric. service providers	4	IV (4)	5.3	1.2		2 & 4	SSA
2.3.1.2 Reformed & decentralized/deregulated agriculture extension services	4	IV (4)	5.3	3.4		2 & 4	SSA
2.3.1.3 Capacity of public & private service providers developed to deliver CSA	4	IV (4)	5.3	3.4		2 & 4	SSA
2.3.2 Farmer Field School (FFS) Programmes:							
2.3.2.1 State-level FFS programmes developed for climate-smart agriculture	4	IV (4)	5.3	3.4		2	SSA
2.3.2.2 State-level men & women FFSs implemented for climate-smart agriculture	4	IV (5)	5.2	3.5		2	SSA
2.3.2.3 FFSs networks empowered to “producer organizations”	2	II (2)	3.4	3.6		4	SSA
2.4 Private Sector Support to Smallholder Agricultural Mechanisation						4	
2.4.1 Analysis of smallholder farming sector – for improved tools & machinery	7					2	SSA
2.4.2 Mapping & institutional assessment of manufacturers, importers & retailers	7	IV (7)				4	SSA
2.4.3 Linkages with South-South Cooperation countries for tools & machinery	9	IV (9)	5.1	3.4		4	SSA
2.4.4 South-South Cooperation linkages monitored & reinforced/modified	9	IV (9)	5.1	3.4		4	SSA
Intervention Area 3. NRM and Livelihood, Food Security and Nutrition Response, Protection & Recovery							
3.1 Recovery of Food Security, Nutrition & Rural Livelihoods in the Darfur Region						5*	
3.1.1 Catchment Planning:					1.2 & 4.8		
3.1.1.1 Baseline surveys of selected catchment areas	3	I (6)	1.2	3.7		6	SSA
3.1.1.2 Establishment of catchment management forums	3	I (6)	1.2	1.9 & 3.7		3 & 5	SSA
3.1.1.3 Preparation of community-based catchment management plans	3	I (6)	1.2 & 6.2	1.9 & 3.7		3 & 5	SSA
3.1.2 VGGT and Peacebuilding in Catchment Areas:					4.8		
3.1.2.1 Preparation of participatory land-use plans in subcatchment areas	3	I (3)	6.2	1.10		3 & 5	SSA
3.1.2.2 Conflict resolution through community-based NRM & dialogue platforms	3	I (3)	6.2	1.10		3 & 5	SSA
3.1.2.3 Support to the resettlement of IDP farmers & pastoralists				1.10		3 & 5	SSA
3.1.3 Agricultural Production in Catchment Areas:					1.1		
3.1.3.1 Rehabilitation & construction of soil & water infrastructure (for irrigation)	1 & 2	I (5)	1.1	2.2 & 3.5		2 & 5	SSA
3.1.3.2 Up-grading & expansion of community-based seed multiplication system	2	II (2 & 5)	3.2	3.5		4	SSA
3.1.3.3 Validation & up-scaling of climate-smart crop production through FFSs	2	III (5)	3.2 & 5.2	3.4 & 3.5		2 & 5	SSA
3.1.3.4 Up-grading & expansion of community animal health services (inc. CAHWs)	4	III (4)	2.2	3.4 & 3.5		2 & 5	SSA
3.1.3.5 Establishment of producer marketing organizations from FFS networks	2 & 5	II (2 & 7)	3.4	3.6		4	SSA
3.1.4 Forest Management in Catchment Areas:					1.2		
3.1.4.1 Rehabilitation of forest reserves	6	I (6)	1.2	3.7		2	SSA
3.1.4.2 Promotion of community forest and range management systems	6	I (6)	1.2 & 3.1	3.7		2 & 3	SSA

CFP/PoA Programme/Project Component and Outcome	ARP	CAADP	CPP	DFA/DDS	UNDAF	FAO	
	Mission Measure (a)	Pillars (& PS/PA) (b)	Outcome & Priority Intervention (c)	Pillar & Objective (d)	Output (e)	Strategic Objective (f)	Regional Initiative (g)
3.2 Drought Resilience and Recovery of Pastoralist Livelihoods along Stock Routes						5*	
3.2.1 VGGT and Peacebuilding:					4.8		
3.2.1.1 Biophysical & socio-economic assessment of stock routes	3	I (3 & 6)	1.2	1.10		6	SSA
3.2.1.2 Land-use planning along stock routes	3	I (3)	1.2	1.10		3 & 5	SSA
3.2.1.3 Conflict resolution through community-based NRM & dialogue platforms	3	I (3)	6.2	1.10		3 & 5	SSA
3.2.1.4 Demarcation of stock routes	3	I (3)	1.2 & 6.2			3 & 5	SSA
3.2.2 Natural Resource Management:					1.2		
3.2.2.1 Rehabilitation & construction of community water points/water harvesting	1 & 6	I (5 & 6)	1.1	2.2		3 & 5	WS
3.2.2.2 Adoption of community-based range & water management systems	2 & 6	I (6)	1.2 & 3.1	3.5 & 3.7		2 & 5	SSA
3.2.3 Animal Health and Production:							
3.2.3.1 Establishment of community animal health services (including CAHWs)	4	II (4)	2.2 & 3.1	3.4 & 3.5	1.1	2 & 5	SSA
3.2.3.2 Adaptive research drought-tolerant pasture varieties (through ARC & FFSs)	4	IV (4)	5.1			2 & 5	SSA
3.2.3.3 Animal breed & fodder/feed production improved (through CARDAs)	2	IV (5)	3.1 & 5.2	3.4 & 3.5		2 & 5	SSA
3.2.3.4 Establishment of pilot private smallholder & community ranches	2	II (5)	3.2	3.5		2	SSA
3.2.4 Livelihoods Support through Post-harvest Management:			3	N/A	1.1		
3.2.4.1 Establishment of livestock producer organizations from FFS networks	2 & 5	II (2 & 7)	3.4	3.6		4	SSA
3.2.4.2 Income generation for women & youth (through processing & marketing)	2 & 5	III (2 & 7)	3.2 & 3.4			4 & 5	SSA
3.2.4.3 PPP-driven market information systems established along stock routes	5	II (7)	2.1, 2.3, & 6.1			4	SSA
3.3 Resilience Building for Malnourished Rural Families					1.2	5*	
3.3.1 Community-owned action plans to strengthen resilience	3	I (3)	1.2	1.10		3 & 5	FSN
3.3.2 Water harvesting & storage structures/systems rehabilitated/constructed	1	I (5)	1.1	2.2		3 & 5	FSN
3.3.3 Community-based water & range management systems	2 & 6	I (6)	1.2	3.5 & 3.7		3 & 5	FSN
3.3.4 Climate-smart integrated homestead farming through women-focused FFSs	5	III (5)	3.4	3.4 & 3.5		2 & 5	SSA
3.4 Enhanced Resilience for Forest-dependent Communities in Gum Arabic Belt					1.2	2 & 5	
3.4.1 Assessment of land use, land-use drivers & forest law, policy & governance	3	I (3)		1.10		1	FSN
3.4.2 Community-based resilience/REDD+ strategy options tested & validated	4	III (4)	5.1	3.4 & 3.7		2 & 5	FSN
3.4.3 Resilient REDD+ technologies/practices adopted through men & women FFSs	2	III (5)	5.2	3.4 & 3.5		2 & 5	SSA
3.4.4 Social & environmental impacts of REDD+ strategy options monitored	2	III (5)	5.2	3.4 & 3.7		2 & 5	SSA

CFP/PoA Programme/Project Component and Outcome	ARP	CAADP	CPP	DFA/DDS	UNDAF	FAO	
	Mission Measure (a)	Pillars (& PS/PA) (b)	Outcome & Priority Intervention (c)	Pillar & Objective (d)	Output (e)	Strategic Objective (f)	Regional Initiative (g)
Intervention Area 4. Control of Threats to Sudanese Food Chains							
4.1 National Transboundary Animal Diseases Surveillance and Control System					-	5	
4.1.1 Enhanced risk perception & epidemiological capacity & surveillance centres	8	III (8)		3.4		5	FSN
4.1.2 Improved national TAD early warning/early response system	8	III (8)		3.4		5	FSN
4.1.3 Improved veterinary diagnostic capabilities for major TADs	8	III (8)	2.4	3.4		5	FSN
4.1.4 Veterinarians skilled for TAD surveillance & control operations	8	III (8)	2.4	3.4		5	FSN
4.1.5 Improved access to veterinary services, including CARDAs networks	4 & 8	II (4)	2.4 & 3.1	3.5		2 & 5	SSA
4.1.6 National & state-level livestock disease information databases established	4 & 8	II (4)		3.5		2 & 5	SSA
4.1.7 Effective public/private TAD control strategies & preparedness plans	8	III (8)	2.4	3.4		5	FSN
4.1.8 Farm & community-level biosecurity improved through CARD services	4	III (4)	3.1	3.5		2 & 5	SSA
4.2 Biosecurity, Sanitary/phytosanitary Control and Food Quality and Safety			-		-	4	
4.2.1 SPS control & food safety regulatory frameworks mapped & assessed	8	III (8)	2.4			4	FSN
4.2.2 Integrated & strengthened institutionalization of food safety & quality control	8	III (8)	2.4			4	FSN
4.2.3 SPS analysis strengthened to develop food standards to meet CODEX & WTO	8	III (8)	2.4			4	FSN
4.2.4 Preventive risk-based approaches to food inspection systems developed	8	III (8)	2.4			4	FSN
4.2.5 Enhanced food safety & market access through public awareness, GAP & GHP	8	III (8)	2.4			4	FSN
4.2.6 Capacity for foodstuffs certification & border inspection strengthened	8	III (8)	2.4			4	FSN
4.2.7 Sudan's support to establishment of Arab Food Safety Authorities Network	8	III (8)	2.4			4	FSN

Key: (a) Section 3.5; (b) Section 3.6; (c) Section 3.7 & Annex 1; (d) Section 3.8 & Annex 2; (e) Section 4.1.1; (f) Section 4.1.1; (g) Section 4.1.2 & Annex 3.1

* "Integrated livelihood, food security and nutrition recovery" programmes where FAO Strategic Objective 5 is cross-cutting with Strategic Objectives 2, 3 and/or 4



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