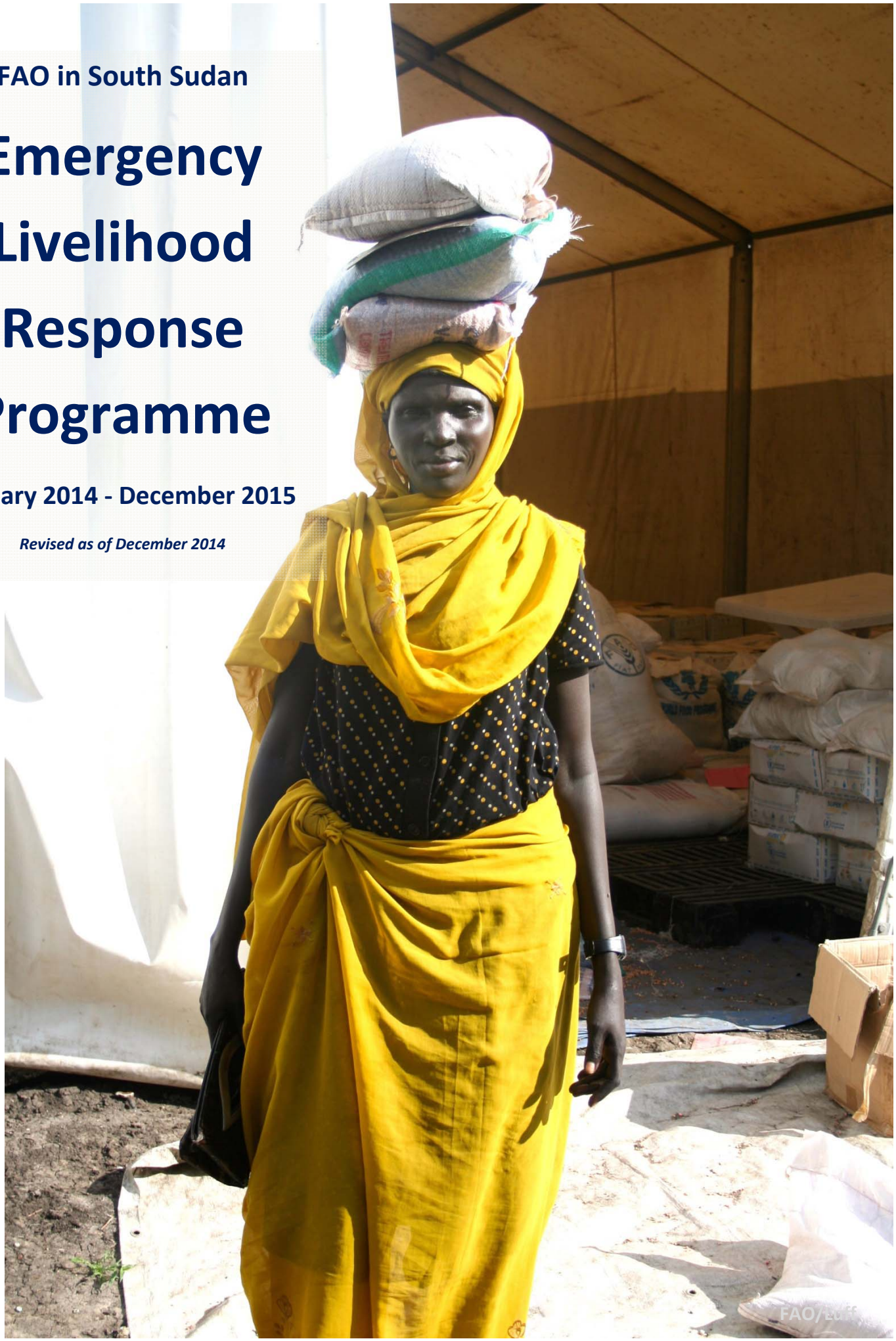
FAO in South Sudan

Emergency Livelihood Response Programme

January 2014 - December 2015

Revised as of December 2014



Food and Agriculture Organization of the United Nations

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Overview of the Food and Agriculture Organization of the United Nations (FAO) Emergency Livelihood Response Programme

Since the crisis erupted in December 2013, FAO in South Sudan has been committed to "stay and deliver". Although attacks on FAO offices in state capitals and deep field locations in Jonglei, Upper Nile and Unity States initially forced the closure of offices and the displacement of some staff, FAO's other seven offices remained open throughout the country. FAO South Sudan's headquarters in Juba functioned as the constant centre of operations, always supported by a mixture of national and international personnel. The commitment to stay and deliver was facilitated by exceptionally high levels of engagement from FAO's Regional Office for Africa in Accra, decentralized offices in Africa and headquarters in Rome.

Stay and deliver – analysis and assistance

During the initial weeks of the crisis, FAO management focused on staff safety and wellbeing. Concomitantly, FAO drew on the strength of the remaining food security analysts in the Government and partner agencies to rapidly revise the Integrated Food Security Phase Classification (IPC) map within one month of the crisis onset. This work formed the basis of not only FAO's programmatic responses but also underpinned the humanitarian community (and Government's) understanding of the interlocking vulnerabilities arising from conflict, flooding risks, population and livestock displacement and pre-crisis structural vulnerabilities.

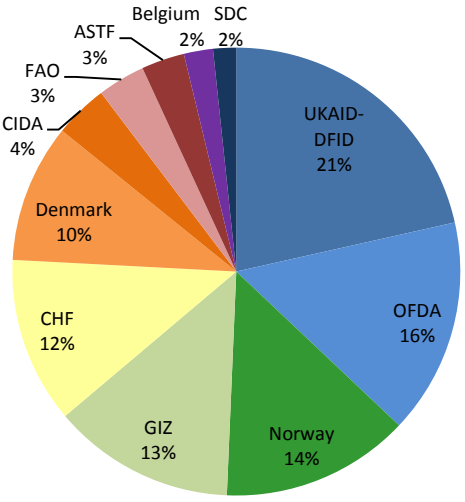
FAO's 2014 humanitarian objectives:

- support food security and livelihood responses through information, analysis and coordination;
- provide rapid emergency livelihood support to the most affected;
- protect food production and availability in less directly affected areas; and
- minimize the impact of population displacement on natural resources.

At the peak of the lean season in July 2014, some 3.9 million people were in IPC Phase 4 'Emergency' and Phase 3 'Crisis', indicating extreme human suffering with alarming consequences including significant food consumption gaps, extreme asset depletion, and unacceptably high rates of acute malnutrition and excess mortality. Global acute malnutrition rates reached 30 percent in some counties. The IPC projections from early January to December 2014 have proven remarkably accurate with each seasonal review. This is due principally to long-term development investments in building food security assessment capacities in South Sudan.

A race against the rains

Critical supplies that had been pre-positioned for the dry season campaign were looted in the early months of the crisis. FAO raced against the clock to ensure that vulnerable farmers were supported in time for the planting seasons and that the impacts of the violence and displacement were mitigated for other producers (e.g. fisherfolk and pastoralists). To this end, FAO's internal modalities for "Level 3 readiness" were activated in advance of the United Nations (UN) system-wide declaration of the Level 3 Emergency on 11 February 2014. These measures translated into a surge of staff and resources, buttressed by "fast



track" procedures. FAO's capacities were significantly increased by these measures.

Thanks to timely and generous contributions

Based on IPC analysis, FAO's component of the UN and partners' Crisis Response Strategy (February 2014) sought USD 77 million to support 3.2 million people, figures that were revised to USD 108 million in June to reflect FAO's expanded capacities. Initial contributions in March, April, May and June from the Africa Solidarity Trust Fund, Belgium (through the Special Fund for Emergency and Rehabilitation Activities), Canadian International Development Agency, Common Humanitarian Fund (CHF), Denmark, FAO internal funds, the Office for United States Foreign Development Assistance (OFDA), and the United Kingdom's Department for International Development totalled USD 42 million to cover the 2014 agricultural season. Subsequent contributions of USD 22 million were provided by Germany, Norway, Switzerland (Swiss Agency for Development and Cooperation [SDC]) and United States of America (OFDA). In 2015, FAO is appealing for USD 89 million, USD 16 million of which is urgently needed to support pre-positioning for the 2015 agricultural season.

FAO's Appeal Funding:

- **USD 108 million** appealed for **in 2014** to assist **550 000 households**
- **USD 42 million** received for **2014 campaign**
- Another **USD 22 million** received **in late 2014**
- **Over 400 000 households assisted** so far
- **USD 89 million** required for **2015** to assist **470 000 households**
- **USD 16 million needed <u>now</u> for pre-positioning**

Delivered through partnerships

With these resources, FAO has engaged in nearly 60 partnerships with national and international Non-governmental Organizations (NGOs) while expanding its own capacities to deliver directly where no partners operate or where partners lack appropriate technical capacities (particularly in animal health). Technical services of the Government are also being supported by FAO to ensure crop production and food security data collection and the detection of livestock disease outbreaks, for example.

FAO had to find new ways to enhance its delivery capacity while ensuring agricultural inputs got into the hands of farmers on time. From the earliest months of the crisis, the logistical challenges were extreme, with minimal capacity in the field and the onset of the rainy season when the crop seeds had to be distributed. The FAO teams used all possible means to get the job done – including partnerships with the United Nations Mission in South Sudan (UNMISS), United Nations Humanitarian Air Service (UNHAS), World Food Programme (WFP), direct contracting of transporters, etc. As a last resort and in order to reach areas not accessible by any other means, airdrops of crop seeds were organized, a first for the Organization. During the rainy season, seven air drops reached seven locations in three states, with over 109 tonnes of seeds transported. FAO partnered with the United Nations Children's Fund (UNICEF) and WFP within the framework of the Integrated Rapid Response Mechanism (IRRM) in order to expand assistance to "hard to reach areas" during the 2014 wet season. Today, FAO is developing its own rapid response capacity through the establishment of mobile field units staffed by FAO personnel with differing technical and operational capacities.

Yielding significant results

The Organization implemented the Emergency Livelihood Response Programme (ELRP) to provide direct assistance as well as guard against further declines in food security among "vulnerable but viable" households elsewhere in South Sudan. Having assisted more than 2.9 million people to date (25 November 2014) with over half a million livelihood kits delivered and animal health interventions for nearly 2.5 million livestock (see table below), the recent IPC analysis provides tangible evidence of the

effectiveness of this strategy with a reduction in the prevalence of food insecurity. FAO, both through its own programme and its role as co-lead of the Food Security and Livelihood (FSL) Cluster, has achieved significant and measurable impacts, including improving food availability and access and mitigating significant risks of famine in 2014.

433 309 families receiving livelihood support (crop, vegetable, fishing kits)			**1.6 million animals vaccinated; kits provided to treat >866 875 animals**
178 653	**187 591**	**153 772**	
CROP KITS	**VEGETABLE KITS**	**FISHING KITS**	**ANIMAL HEALTH CARE**
Food crop seeds, 1 tool (cereals, legumes, roots, tubers)	180 g of vegetable seeds, 1 tool	2 spools of twine, 1 box of hooks, 1 coil of monofilament	Regular replenishment of drugs and veterinary equipment

Accountability to affected populations and resource partners

FAO South Sudan developed a monitoring system tailored to the ELRP to strengthen accountability to affected populations (AAP) and resource partners alike. It includes on-site monitoring during distribution of inputs to obtain rapid feedback from beneficiaries, post-distribution monitoring, post-planting and post-harvest assessments. As of September 2014, monitoring and evaluation (M&E) teams had conducted on-site monitoring of input distribution by partners in seven states (Central Equatoria, Eastern Equatoria, Lakes, Western Bahr el Ghazal, Warrap, Jonglei and Upper Nile) for a total of 37 881 households in 73 locations in over 20 counties. Focused interviews have been undertaken with 1 238 randomly selected households drawn from registration lists.

Estimates as of December 2014:

- 1.4 million internally displaced;
- 474 769 refugees in neighbouring countries;
- 1.5 million people in Emergency and Crisis IPC phases (3 and 4) ≈ 10 percent of the population;
- 40 percent of the population in IPC phases 2, 3 and 4.

- 81 percent satisfied with the quantities distributed;
- 88 percent reported satisfied with the timeliness of input delivery;
- 97 percent satisfied with the composition of kits; and
- 98 percent informed about distribution dates, items and quantities in advance.

To improve accountability and timeliness of information collection, the monitors were trained on the use of a mobile phone data collection system (*EpiCollect*). The system has been piloted in five locations and has simplified data collection and reduced costs. In addition, it has improved AAP, as the system provides information on type and quantity of inputs distributed along with the location on a map and beneficiary photos. Partners have also been provided with guidelines and a checklist on AAP.

The results of these processes have provided important feedback as well as evidence of the effectiveness of FAO's strategy (see box, left). These results merit analysis. The high satisfaction with timeliness is noteworthy given the devastating impact of the timing of the onset of the crisis and the extensive loss of partner presence in field locations. Household concerns about some kits reflect FAO's decisions, in some areas, to provide either partial kits (due to staggered arrivals of procured items from international suppliers) as well as the fact that in some areas, there simply were not enough kits to meet

the demands of some populations – especially those badly impacted by extensive population displacements.

A tale of two harvests

Throughout 2014, FAO has put exceptional effort into monitoring food production conditions, from ground preparation to mid-season performance. As of October 2014, crop production in the states least affected by the crisis was on track for average to above-average harvests. Green harvests and good crop performance have improved food availability, contributing to an overall stable situation as of December 2014 but with significant ongoing food insecurity, with one-third of the population of South Sudan in IPC 2 'Stressed'. The unusual migrations of livestock have seriously impacted pastoral livelihoods but have not significantly reduced harvest outlooks. However, some localized impacts – in terms of crops lost and political tensions – continue to threaten some communities, especially in Lakes, Central Equatoria and Western Equatoria States.

In areas more directly affected by conflict, widespread population dislocation, limits on mobility, unusual livestock migrations and exceptional rates of slaughter, and the destruction of farms, households and markets have combined to deepen the structural vulnerabilities to food insecurity. Displacement and continued insecurity have led to reduced crop planting and limited investment in farming, cattle keeping, fishing and other sources of foods, significant market disruption and damage to livelihood systems. Limited harvests, consumption of green cereals and host communities' efforts to support displaced populations are expected to lead to the early depletion of food stocks.

In areas directly and indirectly affected by conflict, there has been a significant reduction in access to food, mainly cereals and milk. Grass sales, wages and other income sources have declined. Reliance on coping mechanisms has increased, e.g. collection of water lilies and wild fruits and greens, barter between livestock and cereals and distress depletion of livestock (through sales or slaughter). Some strategies bring risks of sexual and gender-based violence (SGBV), conscription into fighting forces or damaging effects to the environment.

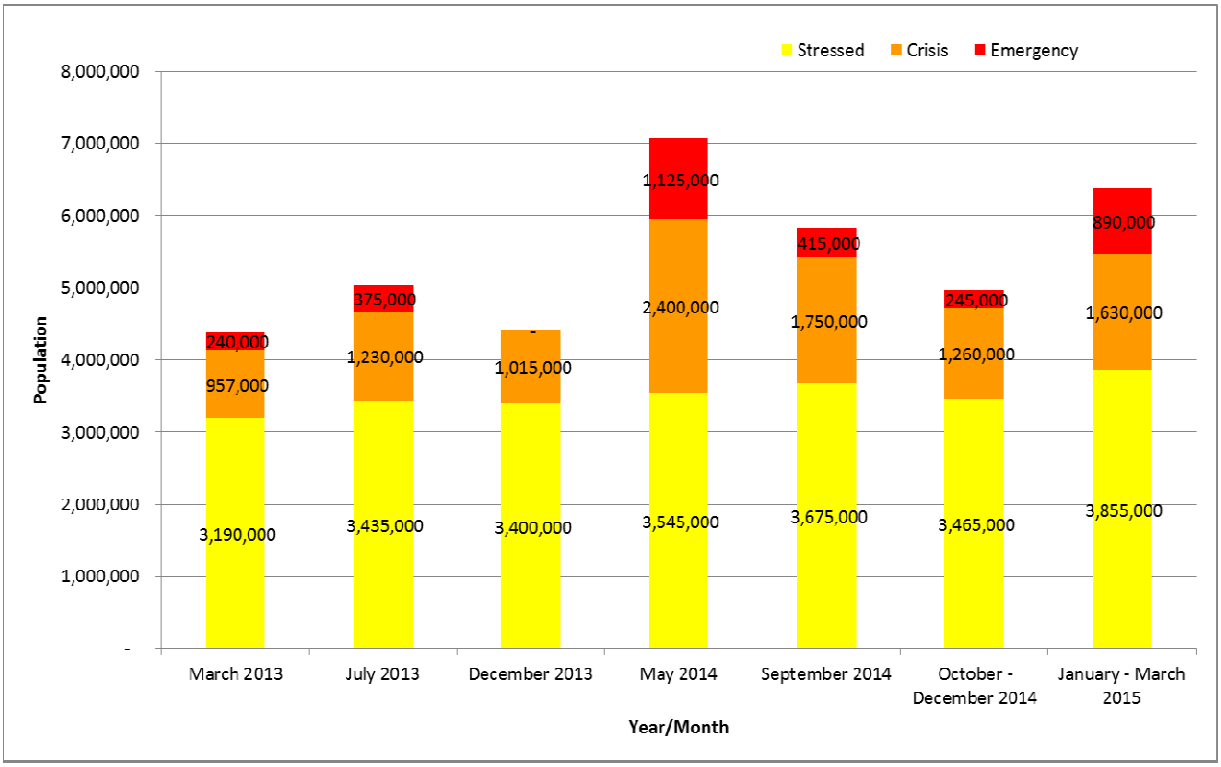
The market situation remains a serious factor affecting food security, nutrition and livelihoods. While functionality has been restored in some of the towns initially affected by the conflict (such as Bor in Jonglei State), other markets have failed due to direct attacks, looting, abandonment by traders, disruption of trading networks, a loss of market infrastructure and reduced purchasing power. With Government staff salaries cut off in Opposition-held areas and delayed in some Government-held areas, many are reliant on the salaries of humanitarian staff, barter, trade or sale of livestock assets for cash. In Greater Upper Nile, where commodities are available, prices are high, up to ten times more expensive than they were in (pre-crisis) December 2013 in some areas (e.g. Bentiu/Rubkona). Prices are relatively stable for most commodities in the less affected areas, although markets oriented to the Sudan are beginning to show volatility due to tensions in border areas.

This is of concern not only in Jonglei, Upper Nile and Unity States but also in Warrap, Lakes and Northern Bahr el-Ghazal States. In Greater Upper Nile, where planting has been limited, cereal stocks are not expected to last beyond January 2015. The lean season will start early and viciously for far too many communities. By December 2014, some 1.5 million people are projected to be in Phases 3 'Crisis' and 4 'Emergency', of which 1 million are in Greater Upper Nile. From January to March 2015, the situation is expected to deteriorate, with 2.5 million people expected to be in Phases 3 and 4, including *half* the population of Greater Upper Nile. Malnutrition will remain high, particularly in conflict-affected areas due to poor food consumption and dietary diversification as well as restricted access to adequate health and nutrition services. Food security specialists are concerned that, in line with seasonal patterns, food

insecurity will further increase from April 2015, and the risk of famine will be most pronounced as the lean season reaches its peak.

Complicated by structural vulnerabilities

In South Sudan, the population identified in IPC Phase 2 ('Stressed') has been steady over time, ranging from 3.19 million in (pre-crisis) March 2013 to a projected 3.85 million in the first quarter of 2015 (see graph). These structural levels of food insecurity reflect the fact that the country is not self-sufficient in food production or food security. South Sudan depends heavily on markets and traders to support trade between states as well as with neighbouring countries. Fisherfolk, farmers and pastoralists rely on functioning markets to barter, sell production and purchase commodities and services. Even in times of relative stability, the country is vulnerable to the vagaries of weather patterns, rains, seasonal flooding, and dry spells, and plant and animal pests and diseases.



Population Trends by IPC Phases 2013-2015

Looking ahead, from now to early 2016

From this point forward, the most important contribution to agriculture, livelihoods and food and nutrition security is peace at international, regional, national and local levels. FAO believes peace will return to South Sudan, but in the interim, the current crisis has generated a momentum of vulnerability that means that humanitarian requirements will persist throughout 2015 and into 2016, at a minimum. Failures to secure peace will markedly increase hunger, destitution, malnutrition, morbidity and mortality, a contingency for which FAO, sadly, must prepare.

Protection is mainstreamed throughout FAO's Programme, making sure at-risk groups' specific needs are taken into consideration and risks mitigated where and when possible. These groups (who could

constitute women and girls, but also men and boys, elderly, unaccompanied children, minorities, internally displaced persons [IDPs] or civil servants whose salaries have not been paid for months) are at risk of conflict-related or sexual violence, forced conscription, looting, destitution and general insecurity.

FAO Targets for 2015

- ✓ **100%** of households in **IPC 4 and 3** in **Greater Upper Nile**
- ✓ **100%** of households in **IPC 4 and 80% of households in IPC 3** in all **other states**
- ✓ **12%** of households in **IPC 2 across the country**
- ✓ Total of **470 000 households** to be assisted

Information, analysis and coordination for evidence-based programming

FAO is a technical agency. Information, analysis and coordination will remain central to FAO's strategic emphasis. FAO has partnered with its FSL Cluster co-lead, WFP, and the NGO lead, Mercy Corps, to develop a common proposal to support the FSL in 2015 for inclusion in the Strategic Response Plan (SRP). The objectives of the FSL Cluster response strategy within the framework of the SRP include: i) ensuring continued and regular access to food for vulnerable people; ii) protecting and rehabilitating livelihoods for vulnerable people at-risk of hunger and malnutrition; and iii) rehabilitating community livelihood assets during the lean season. FAO's ELRP contributes directly to these objectives.

In 2015, FAO will invest further in generating data and analysis needed for both immediate programming as well as for eventual recovery planning. Food security analytical assessments as well as M&E systems will continue to support evidence-based operational decisions and will guide FAO's strategic advice in multiple stakeholder fora, e.g. the Natural Resource Sector Working Group, UN Country Team, Humanitarian Country Team, intercluster working group, etc. FAO will continue to play a key role in the IPC partnership, providing financial, technical and strategic support ranging from deep field data collection to state- and national-level technical consensus building to high-level political endorsement of IPC conclusions and outlook.

FAO will expand its efforts to assess the effects of the crisis on communities (IDPs, farmers, urban vegetable producers, fisherfolk, agropastoralists, traders, etc.) and the environment. Particular attention will be paid to building better understanding resilience and coping mechanisms, changes in availability and access to natural resources such as land, water, pastures, non-wood forest products, water bodies, rivers, fishing grounds, competition between displaced populations and host communities, changing livestock migration patterns and related exposures to disease or conflict risks.

More and better support to increasing food availability and access

FAO will continue to enhance its capacities for generating positive impacts *at scale* while simultaneously strengthening the technical and strategic quality of its efforts. Access to FAO's emergency livelihood kits will be through direct distribution by partners or FAO staff or, as conditions permit, through vouchers and inputs trade fairs. Based on greatest needs, FAO will deliver crop, vegetable, animal health and fishing kits and related services to improve food security, dietary diversification and nutrition.

FAO recognizes the essential role of women in improving household food security and nutrition. For this reason, FAO's interventions will focus as much as possible on women to ensure the entire household unit reaps the benefits. The planned activities seek to help women as they help their families to manage the consequences of crisis and food insecurity, providing opportunities for income generation, increasing access to nutritious food sources, reducing exposure to sexual violence and improving cooking practices.

The role of agriculture in nutrition is primordial; FAO will contribute to the prevention of malnutrition through increasing and diversifying agricultural production, while increasing access to safe, diverse and nutritious foods coupled with nutrition education. FAO will also coordinate closely with agencies applying nutrition-specific approaches.

FAO will refocus its protection efforts through its natural resource sector programme. FAO will upscale the distribution of fuel-efficient stoves (FES) to better protect women and girls against the risk of SGBV associated with collecting firewood. These and other efforts will seek to ease pressure on forests and woodlands in IDP settlements, e.g. through promoting coppicing and pollarding for selective collection of firewood to mitigate the impact of concentrated demand for fuel.

The composition of the crop seed kits will be more sharply adapted by region according to agro-ecologies, while ensuring seed diversity to meet nutritional needs. Based on assessments of seed production in the Equatorial States and in Greater Bahr El-Ghazal, FAO will continue to increase the share of domestically produced seeds that will be distributed to vulnerable producers through humanitarian channels. This is the core of FAO's *Seeds for Peace* initiative. Further, FAO will maintain its limits on the distribution of "dual use" agriculture implements (e.g. machetes) in communities at risk of conflict.

Where conditions permit, FAO will focus on resilience-building activities for IPC 2 ('Stressed') households to promote livelihood recovery, diversified food production and contribute to restoring the functionality of markets. Support will also be provided for the adoption of improved production systems, post-harvest processing and access to markets for crop, livestock, fisheries and forestry sectors. Support will also be provided to households to enhance nutrition knowledge and skills in preparation of the different foods they produce and access locally. FAO will promote improved agricultural practices, seed fairs, support to seed multiplication, mitigation of post-harvest losses through improved handling and storage, improved household food preparation as well as the promotion of and training on improved equipment such as ox-ploughs. FAO will support animal health services through the training of community-based animal health workers (CBAHW) and targeted (re-)introduction of cost-recovery to ensure the durability of service provision.

In additional to animal health protection, FAO will undertake targeted restocking, training on improved animal husbandry including fodder production and storage for dry season supplements, as well as milk and meat handling and processing and promotion of consumption of these animal products in household diets, to enhance nutrition outcomes in the worst-affected areas. FAO will contribute to reducing fish post-harvest losses and increasing incomes of fishing households through training on efficient basic fish processing techniques, supported by portable storage capacities and insulated bicycles, scales and tarpaulins. Fish being of high nutritional value, FAO will also promote its consumption. Awareness-raising and capacity building on natural resource management in all the relevant livelihood sectors is an overall priority for FAO and will be systematically promoted in its interventions.

Keeping it safe, being accountable

FAO will maintain field hubs in Wau, Rumbek, Bor, Bentiu, Torit and Juba. With an estimated 6 000 tonnes of inputs to be pre-positioned to respond to needs in 2015 and again for 2016, all storage facilities are located in UNMISS or guarded UN compounds. Building on a new, global partnership, FAO in South Sudan will benefit from technical support in logistics in collaboration with the Kuehne and Nagel Foundation. A robust information management system is being established that will allow managers to track at a higher level of timeliness and resolution the full supply chain of FAO resources,

from planning to delivery to the final beneficiary. This will allow better monitoring of implementing partners and timelier reporting to stakeholders.

Lastly, FAO will build on recent investments to strengthen its organizational security and contingency measures with an eye towards business continuity. These measures, to-date, have included the recruitment of highly experienced international security officers, the introduction of a staff warden system, procurement of radios and personal protective equipment, and an expanded fleet of MOSS-compliant field vehicles. Additional efforts will be made to continue to improve the safety of FAO's staff and assets.

ELRP Logical Framework 2015

Intervention Logic	Indicators	Source of Verification	Assumptions
Impact **To contribute to protecting vulnerable populations affected by the crisis in South Sudan against hunger, malnutrition and destitution**			
Outcome[1] **Livelihoods of vulnerable farmers, fisherfolk and herders protected and food security and nutrition enhanced**	✓ 100% of HH in IPC 4 and 3 in Greater Upper Nile reached with emergency livelihood support ✓ 100% of HH in IPC 4 and 80% of HHs in IPC 3 in all other States reached with emergency livelihood support ✓ 12% of HH in IPC 2 across the country reached with livelihood recovery and food production	Partners' reports; FAO Information Management System data; Project reports	✓ Government continues to guarantee safety of UN staff operating in government-held areas ✓ Humanitarian access corridors are maintained open and operational ✓ No major natural or man-made disasters occur to impede timely delivery of inputs ✓ Adequate rainfall occurs ✓ Required resources are available ✓ Commodites are available in sufficient quantities ✓ Major conflict does not erupt again in Juba impeding core staff to perform functions
<u>Output 1:</u> Food security information, analysis and coordination mechanisms used for evidence-based decision-making	✓ Crop and livestock assessments, market data, FSNMS surveys, IPC and other analyses conducted timely and disseminated ✓ Related partnerships and Government capacity enhanced ✓ Humanitarian response planning and revisions adopted by HCT, agencies and donors are informed by field assessments, IPC and	Partners' reports; FAO Information Management System data; Project reports; Cluster meeting minutes	✓ IPC and other analysis continues to be a consensus-building and participatory process endorsed by all stakeholders ✓ Partners for joint assessments are available and demonstrate sufficient technical capacity ✓ Human resource capacity is sufficient to ensure timely analysis and technical guidance in response

[1] All FAO's interventions under the ELRP are planned to be flexible and adaptable to a changing and sometimes volatile context. FAO's deliverables will ultimately depend on available resources and FAO's ability to effectively implement planned interventions (access, partners etc.) as detailed in the assumptions.

	other analyses ✓ baseline survey and post-distribution monitoring conducted for each intervention ✓ Joint assessments and analysis exercises carried out or coordinated by the FSL Cluster ✓ Regular meetings held (state, national, TWG) response planning and monitoring exercises performed and Technical Guidelines produced by the FSL TWGs		to changing conditions
<u>Output 2:</u> Emergency livelihood support provided to food insecure and displaced households	✓ At least 470 000 HHs provided with emergency livelihood support (disaggregated by gender) ✓ 7 million animals (cattle and small ruminants) vaccinated and treated ✓ 90% of kit beneficiaries received direct instructions/training on planting, post-harvest handling, nutrition education and conservation disaggregated by gender	Partners' reports; FAO Information Management System data; Project reports	✓ Access to target areas remains possible ✓ Inputs can be delivered on time ✓ Warehouses are safe from looting and destruction ✓ Insecurity does not impede delivery of project activities ✓ Cold chain operationality is adequately restored ✓ Kits are used appropriately by beneficiaires
<u>Output 3:</u> Increased production, availability and access to food sources in less-affected areas	✓ 30 000 male and female households benefited from voucher /ITF schemes ✓ 30 000 people trained on production (crop, vegetable, fisheries, livestock), seed multiplication, post-harvest losses, processing /marketing, hygiene and handling, nutrition education and food preparation (disaggregated by gender)	Partners' reports; FAO Information Management System data; Project reports	✓ Partners for voucher system are available in urban areas ✓ Women's groups remain in urban areas for duration of project ✓ FAO staff and partners can access and remain safely in selected target locations long enough to conduct training

	✓ 500 vulnerable male and female headed households restocked ✓ 100 800 livestock-dependent HHs reached with extension material and messaging on disease control and production techniques and nutrition benefits of consuming livestock products		
<u>Output 4:</u> Pressure of IDP presence on natural resources and the environment minimized	✓ 64 500 of male and female headed households receiving FES and reporting reduction in HH fuel consumption ✓ 500 females trained in use and production of locally made FES. ✓ 20 energy woodlots established	Partners' reports; FAO Information Management System data; Project reports	✓ Access to target areas remains possible ✓ Communities targeted for local stove production are not displaced
Activities 1.1 Lead food security and livelihoods situation monitoring 1.2 Provide analysis (food and nutrition insecurity, vulnerability, needs & response) to inform advocacy, strategic planning and response programming 1.3 Build consensus on improved food security information systems and methodologies 1.4 Increase coordination, information management and stakeholders' capacity at national and state level (including Abyei) 1.5 Improve technical awareness and understanding of the main food security areas (e.g. food assistance, agriculture, livestock and fisheries and urban livelihoods) and draft sector-specific technical guidelines 1.6 Participate in and influence the formulation of country-based humanitarian planning (Government, Cluster) 1.7 Collect and analyse baseline data to feed Safe Access to Fuel and Energy (SAFE) strategy formulation and FES distribution plan 1.8 Conduct post-distribution and results monitoring 1.9 Conduct assessment of impact of crisis on livelihoods, coping mechanisms adopted and resilience of affected populations			
2.1 Provide portable emergency livelihood kits: 2.1.1 Rapidly maturing and nutritious vegetable seeds and 'no harm' tools 2.1.2 Crop seeds and 'no harm' tools 2.1.3 Fishing capture and conservation equipment 2.1.4 Livestock treatment kits for CBAHWs 2.2 Provide basic instructions to kit beneficiaries on optimal use of inputs, post-harvest handling, nutrition education and conservation 2.3 Provide support to dry season vegetable production and practical nutrition education on preparation of vegetables 2.4 Conduct livestock disease surveillance, vaccination and treatment campaigns in at-risk areas 2.5 Build the capacity of CBAHWs			

2.6 Reinforce the veterinary vaccines cold chain: 2.6.1 Repair and maintain existing facilities 2.6.2 Establish new cold chain facilities 2.6.3 Train cold chain technicians 2.7 Build awareness and capacity to decrease veterinary public health risks in Protection of Civilian (PoC) sites
3.1 Provide access to locally adapted and diversified seeds and no-harm tools (input trade fairs, seeds recollection and redistribution) 3.2 Support diversified food production, processing, hygiene and handling, nutrition education & food preparation, storage and marketing 3.3 Provide access to inputs and high protein and micro-nutrient rich food sources (e.g. production and consumption voucher system) 3.5 Restock vulnerable livestock-dependent households 3.6 Support the development of livestock extension materials and messaging on disease control and production techniques and awareness on nutritional benefits of consuming livestock products nutritional benefits 3.7 Support the investigation of disease outbreaks 3.8 Conduct radio community awareness campaigns (including on nutritive value of different foods promoted by the programme)
4.1 Introduce and train on use of energy-efficient cooking practices and technologies among affected populations 4.2 Promote sustainable natural resource management including integrated agroforestry practices such as coppicing and pollarding 4.3 Promote establishment of energy woodlots

Acronyms

AAP – Accountability to affected populations
AFIS - Agriculture and Food Information Systems for Decision Support
CHF – Common Humanitarian Fund
ELRP – Emergency Livelihood Response Programme
FAO – Food and Agriculture Organization of the United Nations
FES - Fuel-efficient stove
FEWS NET – Famine Early Warning Systems Network
FSL – Food Security and Livelihoods
IDP – Internally displaced person
IPC – Integrated Food Security Phase Classification
M&E – Monitoring and Evaluation
NGO – Non-governmental Organization
OFDA – Office of United States Foreign Disaster Assistance
PoC – Protection of Civilians
SAFE - Safe Access to Fuel and Energy
SBGV – Sexual and Gender Based Violence
SRP – Strategic Response Plan
SDC –Swiss Development Cooperation
TWG – Technical Working Group
UN – United Nations
UNHAS - United Nations Humanitarian Air Service
UNICEF – United Nations International Children's Emergency Fund
UNMISS – United Nations Mission in South Sudan
WFP – World Food Programme

Food and Agriculture Organization of the United Nations

FAO IN SOUTH SUDAN

REVISED EMERGENCY LIVELIHOOD RESPONSE PROGRAMME

JANUARY 2014 - DECEMBER 2015

Technical Annexes

The livelihoods of various groups of concern in South Sudan, including livestock owners, fisherfolk, farmers and urban populations have been severely affected by the current crisis. The crisis has increased insecurity along commercial supply corridors; flight of private sector actors; market fragmentation; food and fuel price inflation; risks of cattle raiding; limitations on mobility for livestock, fishing and hunting migrations; and conflict-related displacement. The crisis has also directly affected the operational capacity of development partners working on agriculture and rural development and the Government – already in austerity – has been further decapacitated by the crisis, including through looting of offices, accommodation, vehicles and warehouses and the diversion of line ministry resources to security priorities. FAO has made access to food sources for displaced and food-insecure households a priority across the country to combat malnutrition, disease and destitution.

With the evolution of the crisis, FAO has revised its ELRP to cover the period January 2014 to December 2015. Under the revised ELRP, FAO will continue to assist vulnerable households in all ten states of South Sudan as well as the Abyei Administrative Area to boost food security by providing emergency livelihood support and to protect livelihoods by restoring production. FAO's Programme takes into account the increased pressure caused by large numbers of displaced persons on natural resources and the environment and aims to introduce practices and technologies that minimize the short- and medium-term impact of such pressure. Finally, recognizing the criticality of food security information, analysis and coordination to ensure evidence-based decision-making, FAO will continue to play a leading role in this field, including through continued collaboration with institutional stakeholders participating in the IPC.

As a technical agency, FAO ensures all its interventions are environmentally sustainable, in line with existing guidelines and compliant with established technical standards for each sector. FAO agriculture and fisheries interventions will include good natural resource management practices including the introduction of economically efficient and environmentally friendly equipment. All fishing gear procured by FAO is compliant with the existing national legal and regulatory framework and in line with the FAO Code of Conduct for Responsible Fisheries and, where applicable, all of FAO's livestock interventions comply with the recognized Livestock Emergency Guidelines and Standards.

The interventions will give due emphasis to IDPs, returnees and vulnerable host communities. Female-headed households remain among the most vulnerable, with generally low levels of household income. It is, therefore, imperative to deliberately target women as beneficiaries in order to bring about

meaningful impact on the food security status of the household, while impacting on nutrition outcomes. Gender disparities remain high despite the crucial role women play in food, nutrition and livelihoods security. Gender inequalities can be a cause as well as an effect of hunger and malnutrition. Women have little or no access to and/or control over productive resources, assets and decision-making. Their chances for economic advancement are extremely limited. As such, women will be the primary beneficiaries of these interventions. Women have a key role in improving nutrition at household level since most of their income is used to meet the household needs including food and healthcare. As the Programme aims to foster food, nutrition and livelihood security, mainstreaming gender into fish production, processing and marketing activities will enable women to fully unleash their potential for contributing to their own wellbeing as well as that of their families.

FAO will endeavour to ensure proper utilization of commodities provided through the timely distribution of appropriate and locally accepted inputs. Buffer stocks will also be created to ensure FAO can accommodate requests stemming from rapid assessments or in-kind agreements with Cluster partners outside of FAO's distribution plan. To further assist beneficiaries, FAO will design simple information pictorial/ graphic pamphlets to be delivered with the kits. Community radio broadcasts will also be used for awareness and communication of important technical information. The monitoring and evaluation framework will include baseline assessments as needed, onsite spot-checks during distribution, post-distribution monitoring and assessment of the Programme as a whole.

FAO's emergency livelihood kits are designed to be lightweight to allow for portability. Furthermore, within the context of the wide-scale distribution of kits, FAO will work with partners to ensure distribution points are within a reasonable distance (not more than 1.5 hours is recommended) of beneficiaries and that distribution times will allow safe movement during the daytime to and from the distribution points; indications to this effect will be incorporated in to all FAO's agreements with implementing partners.

In addition to the ELRP, FAO South Sudan remains strongly committed to continue its development programme for South Sudan. FAO's ELRP includes resilience-oriented transitional activities creating linkages with FAO's ongoing development projects. FAO South Sudan's immediate objectives for development include: increasing market-oriented production and productivity; strengthening farmer-based organizations and cooperatives; strengthening service providers' engagement in agribusiness; supporting the development of technical guidelines; building the capacity of the Government in food security information and analysis; improving community stability and sustainably improving food security for women, men, youth and children; improving access to rural financial services for vulnerable farmers, herders and fisherfolk; and, supporting the Ministry of Animal Resources and Fisheries to strengthen organizational capacity for animal disease reporting.

INFORMATION, ANALYSIS & COORDINATION

Background

Throughout 2014, the FSL Cluster has played a critical role in supporting the needs of the different stakeholders in terms of coordination and information management at national and state level and will continue to do so, strengthening the linkage with national/state government/ministries. FAO continues to co-lead the FSL Cluster, contributing to needs assessments and response planning and providing up-to-date food security and nutrition data and analysis to inform programming. Within this framework, FAO is part of the Rapid Assessment Team composed of WFP, FAO and 20 NGOs (international and national) set up to fast-track needs assessment, analysis and reporting.

The crisis has fostered demand for updated information and inclusive mechanisms for analysis and coordination. Important results have been achieved in this regard, with FAO co-leading field data collection and analysis to inform and adjust programming including the IPC, crop planting and harvest assessments, the Food Security Monitoring System FSMS, Emergency Market Mapping and Analysis, Emergency Food Security Assessment, IRNAs, spot checks and other cluster level or sector-specific assessments. FAO's information and analysis team–including expertise in data collection and entry, food security analysis, information system development, nutrition and monitoring and evaluation - has worked tirelessly since the onset of the crisis to ensure that decision-makers have adequate information at hand for an evidence-based response.

FAO has significantly contributed to strengthen the partnerships underpinning agriculture and food security information systems, in particular with WFP Vulnerability Analysis Mapping, Famine Early Warning Systems Network (FEWS NET), UNICEF, FSL and Nutrition Clusters, as well as the IPC Technical Working Group, chaired by the Ministry of Agriculture, Forestry, Cooperatives and Rural Development. Such efforts have gathered considerable achievements in terms of technical consensus building, in order to enhance harmonized methodologies, information dissemination and aligned messaging. These partnerships produce vital field data and information otherwise unavailable to decision-makers, at the same time enhancing the Government's institutional capacity at both national and state levels.

In 2014, FAO played a key role in the IPC analysis, which has formed the basis of food security and livelihood response planning by humanitarian partners. IPC informs strategic decisions regarding geographic and thematic areas of intervention, and gives the opportunity for decision-makers to resolve longer-term structural obstacles in achieving sustainable food security and building the resilience of communities in the long run, it continues to be used as a vital tool for informing and adjusting programming. Since the onset of the crisis, every three months FAO, WFP, FEWS NET, government stakeholders and other partners have worked together to release IPC analysis and updates for evidence-based decision-making.

Within FAO, these efforts are led by the "*Agriculture and Food Information Systems for Decision Support (AFIS)*" project team, a European Union-funded initiative allowing FAO to step up to the challenge in support of humanitarian response planning to fill a critical information and capacity gap related to the recent crisis. In doing so, AFIS has maintained the continuity of the information system and capacity building work with the response to the crisis, and is in a position to build on that effort to further support the institutionalization in a more stable situation. It is currently the sole coordination mechanism in the country in the field of information systems able to bring together the different channels that lead to the collection, dissemination and analysis of data, avoiding duplications and building complementarities.

FAO interventions

As co-lead of the FSL Cluster, FAO plays a key role in maintaining a national and state-level coordination function to support and monitor FSL partner interventions at state level. In 2015, the FSL will continue to work with cluster partners to carry out critical mapping exercises to ascertain which partners are present in the different parts of the country areas and ensure optimal coverage. FAO will seek to ensure the critical role of Area Cluster Coordinators is maintained and reinforced in critical hotspots and will continue to invest to maintain key FSL Cluster information management and monitoring and evaluation functions.

As a technical agency, FAO seeks to promote high technical standards in all its interventions. Technical standards for inputs and services are decided on in close collaboration with Government. Within the FSL Cluster, FAO leads two of the Technical Working Groups (TWGs) – Agriculture and Livestock/Fisheries– with active participation also in the Cash and Urban Livelihoods TWG. Currently, Government capacity to enforce technical standards is extremely limited. Through the above-mentioned Working Groups, FAO and the Government are leading discussions with partners on technical standards for the composition (including technical specifications) of emergency livelihood kits and is currently receiving feedback from partners on local preferences throughout the country to further inform planning and programming. The FSL Cluster will come out with technical guidelines and carry out training for partners on specific technical issues such as cash-based programming to establish best practices and to harmonize approaches across the board. In addition, FAO will also organize training on specific technical issues to its FSL partners carrying out emergency livelihood kit distributions to ensure basic technical advice is available to kit beneficiaries.

FAO will continue working with government and partners to closely monitor food security to inform decisions and coordination platforms – including through the FSL Cluster. To ensure evidence-based programming all stakeholders require up-to-date food security data and analysis to inform their programming and operations. FAO is proactively mobilizing its own information system team to address the acute demand for information.

The FAO policy optimizes the use of existing information systems platforms, particularly those developed under development projects (such as AFIS), in order to avoid the creation of standalone/ad-hoc initiatives. Within this framework, FAO is engaging with counterparts to respond to the immediate information needs and bridge the dialogue with humanitarian partners. FAO is expanding its capacity to address specific humanitarian information and coordination needs for timely food security information and analyses, and related decision support.

At technical level, the food security information now integrates systematic anthropometric measurements and nutrition information. Crop monitoring has also been stepped up to capture planting and harvest data according to the seasonal calendar across the various agro-ecological zones of South Sudan. This is expected to significantly improve accuracy of the annual Crop and Food Security Assessment Mission. Food market and rainfall monitoring systems are also being improved to produce timely and accurate information as of 2015. The IPC process now involves a large number of committed stakeholders, including nutrition partners, and is well institutionalized and sustained. As of 2015, it will be further synchronized with the food security seasonal patterns and the most important field data streams, e.g. FSMS/FSNMS surveys.

Furthermore, FAO, as a knowledge-based agency, will undertake its own assessment and analysis of the impact of the crisis on various communities, and between the various sectors, inter alia, pastoralism, agriculture, markets, nutrition, animal health and natural resources as well as the vulnerabilities, coping strategies and resilience of communities. The information will also be used to inform decision-making and disseminated through various channels to complement existing information and coordination mechanisms.

AGRICULTURE – CROP AND VEGETABLES

Background

Cereal stocks are essential for food security and nutrition. Displacement and conflict have left many farmers in South Sudan expecting a limited harvest. Although the rainfall pattern for 2014 was normal for most areas, planting in the conflict-hit areas was greatly affected and will result in low crop production in these areas. Other states have not been spared by the crisis but an average to above-average harvest is expected. Many farmers in areas neighbouring the conflict zones have received large numbers of IDPs who have settled with their relatives. In typical years, household food stocks can last up to April. According to recent IPC analysis, many of these host community households will experience depletion of food stocks as early as January 2015.

FAO's ability to support a large number of households with diversified crop seeds in time for the 2015 planting season depends on the timely receipt of adequate funds to facilitate the pre-positioning of inputs as much as possible by road. The dry season represents a brief window of opportunity to inject sufficient amounts of quality and diversified seed into local distribution channels and ensure that they reach the most vulnerable farmers in time for planting. For crop seeds to arrive in the hands of farmers by March 2015 – the beginning of the agricultural season in parts of the country – FAO must receive funds by late 2014 to allow adequate time to procure from the regional market, transport them to South Sudan (or procure locally where possible) and pre-position the inputs across the country before the first rains. Timely procurement also ensures FAO is able to obtain the best quality seeds and can prioritize the collection and redistribution of quality seeds locally. There is also a general shortage of groundnut and sesame on the market; hence, the earlier the procurement is initiated, the better the chances of securing required quantities of these seeds, which serve as an important source of protein and oils as well as income for women in cases of excess production

A longer-term objective with regard to input supply is to support locally available private sector suppliers of inputs and services related to agriculture through subsidized voucher systems or letters of credit schemes for input and service supply. It is hope this will gradually reduce the need for direct distribution by FAO. The extensive development of such initiatives requires a more conducive operational environment for private sector participation. However, FAO is already piloting voucher systems in two states and initial results will be available in 2015.

FAO intervention

i) Provision of appropriate field and vegetable crop kits and "no harm" tools

Given the expected early onset in 2015 of the lean season due to reduced harvests, emphasis will be placed on rapid maturing field crops and nutritious vegetables for home consumption. While vegetables can be produced with limited space and in a short time, field crops require some land access and time to

yield. FAO will prioritize crop seed distribution in areas where land is available to reduce the risk of land-related conflict.

The kit composition will vary according to the agro-ecological zone targeted. The minimum kit will include three types of crop seeds (cereals, pulses and oil) with a maximum of five types of crops in each kit. The vegetable kit will be composed of seven nutritious and rapid-maturing vegetable species selected from nine different species. These will be distributed mainly according to farmer preferences and agro-ecological zones. The kits, if used in an optimal way, have the potential to provide the cereal equivalent needs of one household for 12 months, while a single vegetable kit can provide dietary diversification for a the same household for one year with potential to sell the surplus. "No harm" farm tools will be provided in accordance with different community preferences, soil types in the different agro-ecological zones and general farming practices. Where possible, this will be supplemented with training on the optimal use of inputs as well as practical nutrition education including food preparation, to enhance the consumption of the foods.

ii) Promotion of seeds multiplication and saving

As part of FAO's commitment to enhancing the resilience of vulnerable populations, the Programme will contribute to improved food security, income and dietary diversification in South Sudan by improving seed production, availability and access for crisis-affected populations. In the more stable Greater Equatoria and Greater Bahr el-Ghazal regions, FAO will work with seed growers to build their capacity to produce and supply quality seed through a combination of formal seed production and multiplication. These seeds will enhance local seed availability for future recollection and redistribution to vulnerable households within the same localities (or other agro-ecologically compatible conflict-affected areas) through Input Trade Fairs (ITFs) and recollection and redistribution. In addition to this, open-pollinated varieties (OPV) have been deliberately chosen for the crop kits to ensure that where possible, FAO will also support and reinforce seed saving to reduce perennial distribution of seeds to the same population.

iii) Dissemination of key extension messages

Key extension messages regarding the distributed seeds (all field crops and vegetables) and tools: good production, storage, seed saving and processing practices will be disseminated during short sessions with implementing partners and beneficiaries as part of distribution. Simple graphic leaflets/pamphlets with basic extension messaging will also be provided with the kits. In the more stable areas, interventions will be supported with more intensive training, field follow-ups, inspections and testing of seeds.

Figure 1. Planned composition of field crop kits

	Maize (Longe 4, Longe 5) kg/HH	Sorghum (Macia/ Sesso III/ Wad Ahmed) kg/HH	G/Nuts (Sodari, Serenut, Red Beauty) kg/HH	Cowpeas (Secow 1T, Secow 2WT) kg/HH	Sesame (Sesame 2) kg/HH	Total (kg/HH)
Days to maturity	**OPV 100-115**	**OPV 90-100**	**OPV 90-100**	**OPV 70-85**	**OPV 100-110**	
Average area planted (ha)	**0.2**	**0.5**	**0.25**	**0.1**	**0.25**	
Potential Production (kg)- Vary with agro-ecological zones	**300-400 (also consumed green)**	**500-700**	**150-300 (unshelled)**	**75-150 (also consumed green leaf)**	**100-200**	
Central Equatoria	5	5	15	2	2	29
Eastern Equatoria	5	5	15	2	2	29
Western Equatoria	5	5	15	2	2	29
Western Bahr el Ghazal	5	5	15	2	2	29
Lakes	5	5	15	2	2	29
Unity	5	5	0	2	2	14
Jonglei	5	5	15	2	2	29
Upper Nile	5	5	15	2	2	29
Warrap	5	5	15	2	2	29
Northern Bahr el Ghazal	5	5	15	2	2	29

Figure 2. Planned composition of vegetable kits

Vegetable type	Days To Maturity	Quantity (g)	Potential Production (kg)
Amaranths (White Elma)	21	**20**	**120**
Eggplant (Black beauty)	75-80	**20**	**130**
Onion (Red Creole)	210	**20**	**220**
Tomato (Money Maker, Claudia)	75-80	**20**	**500**
Okra (Clemson spineless)	55-60	**50**	**100**
Kales/Collards (Georgia)	75	**20**	**120**
Watermelon (Crimson sweet or Charleston Grey)	85-90	**30**	**210**
Carrot (Nantes)	100-110	**20**	**140**
Cabbage (Copenhagen)	65-75	**20**	**400**

Figure 3. Planned composition of tool kits

Tool	Qty/HH
Maloda	**1**
Hoe	**1**
Watering Can	**1**
Sickles	**1**
Total per HH	**2-3 items***

*2-3 of the tools most suited to the area of distribution will be distributed to HHs

Findings from post-distribution monitoring revealed that beneficiaries would like to receive training on vegetable production and post-harvest loss reduction. The provision of basic training to kit beneficiaries for the optimal use of inputs, including post-harvest handling and conservation, is a priority for FAO and will be pursued wherever possible. In some areas, where significant security and accessibility constraints do not allow FAO staff or partners to remain on the ground, FAO will ensure that at least the pictorial instructional leaflets are provided to kit recipients to explain basic planting and spacing requirements. Where possible, FAO will work with different dissemination tools including community radios networks to provide additional training and technical information to beneficiaries on the production and preparation of field crops and vegetables.

LIVESTOCK

Background

The current conflict has disrupted the traditional livestock movement pattern, further exacerbating the dire situation of livestock. Other constraints include extreme weather events, high prevalence of animal diseases, limited government capacity for well-performing animal health delivery systems, lack of border controls and chronic underinvestment in the livestock sector. The high prevalence of many diseases generates extensive economic loss and social disruption that threatens the food security and nutrition as well as the viability of livestock-based livelihood systems.

To minimize the effects of disease outbreaks on livestock production and productivity, animal health interventions are required. This can be done through the provision of vaccines, the establishment of private veterinary pharmacies/drugs stores and the creation of linkages with existing networks of CBAHWs, particularly in high risk areas. To progressively make the CBAHW-based animal health service delivery more durable and sustainable, it is indispensable to re-introduce and improve cost-recovery. This is compliant with South Sudan's official policy in this sector.

In order to effectively respond to livestock disease outbreaks as well as to ensure basic animal health care services, expanded efforts are required to identify and support CBAHWs in high-risk areas. CBAHW are identified by the community based on their knowledge of animal health and diseases, as well as generally of livestock, pasture and water-related issues. They are trained by NGO and Government veterinary personnel for two weeks on basic animal health service delivery (diagnosis and treatment of diseases, vaccinations, disease surveillance, reporting, etc.).Throughout South Sudan, there is a high demand, but a limited number, of CBAHWs. As was evident during Operation Lifeline Sudan, CBAHWs were the last people standing in terms of livestock service providers, particularly in crisis situations. It is therefore vital to revitalize the CBAHW network and establish functional reporting and operational linkages with private pharmacy owners present on the ground in the more accessible areas as well as with the state and national ministries. Under this pillar of the ELRP, the network of CBAHWs will be (re)equipped and, provided with refresher courses where necessary, and prevailed upon to move with their communities to provide basic animal health assistance during migrations. In the event that the trained CBAHWs have moved on, partners will identify new candidates and provide initial training to fill the gap.

In addition to animal health service delivery, CBAHWs play various roles in the community, including:

- facilitating community dialogue on any livestock intervention and acting as interlocutors between livestock communities, government staff, UN agencies and NGOs;
- contributing to community-based disaster risk reduction and management, primarily by providing an early warning function (based on their traditional knowledge of livestock diseases, pasture and water availability and conflicts) in the case of natural disasters (floods, drought, livestock disease outbreaks), and in the event of human-induced crises; and

- contributing significantly to community dialogue and the prevention of cattle rustling as they treat the animals of different groups.

FAO intervention

CBAHWs will be provided with basic equipment for animal health care interventions to treat the most common livestock diseases occurring in their respective areas. Basic pharmaceutical products will be replenished according to need and records will be kept to document the use of veterinary drugs. One kit will service the animal healthcare requirements of 50 households for one month - or approximately 250 animals. With a treatment rate of 10 percent, the number of indirect beneficiaries of one kit could reach 500 households. FAO will target vulnerable community members and provide them with the kits in the areas with high concentrations of livestock. In particular, priority areas for intervention will include locations where resident naive herds are at risk of infection by livestock diseases following human displacement patterns. Livestock treatment kits will only be delivered to qualified CBAHWS. Communities and beneficiaries will be systematically sensitized on the necessity of cost-recovery, which will be gradually re-introduced and improved. In addition to their technical training, CBAHW will receive training on how to deal with cost-recovery and to manage their kits accordingly.

i) Vaccination and treatment

The training of CBAHWs will be done by FAO's partners including ministry officials at state level, and 1 330 CBAHWs will be targeted for training and provision of treatment kits and protective attire. A total of 3 990 veterinary kits consisting of basic pharmaceutical products for treatment of common livestock diseases, including East Coast fever in locations where it is prevalent, will be provided to the CBAHWs, who will move with their communities and treat livestock as needed. The pharmaceutical products in the kit are detailed in Table 7 below.

Vaccines for major immunizable animal diseases such as Haemorrhagic Septicaemia (HS), Contagious Bovine Pleuropneumonia (CBPP), Pe*ste des Petits Ruminants* (PPR), Black Quarter and Anthrax which are endemic in South Sudan, and often result in high mortality in livestock herds, will be procured to control these diseases in cattle, sheep and goats. Rabies for dogs and Newcastle for chickens will be also considered. Various vaccines targeting over 6 million animals (including cattle, sheep and goats, chickens and dogs) will be provided to communities in target locations through FAO's partners who will organize vaccination campaigns together with the CBAHWs. As part of reinforcing the CBAHW network to support the crisis response, FAO will work jointly with the Ministry of Animal Resources and other partners to support disease outbreak investigation; this includes field teams to investigate reported outbreaks, laboratory procedures for the analysis of samples and undertaking measures to control outbreaks.

ii) Improving milk production

To improve milk production and processing, FAO will provide training to livestock-dependent households on milk hygiene and handling. FAO will provide mineral salt licks and training on supplementary animal feeding to support production. Where possible, FAO will seek to support and form women's producer groups providing inputs such as milk storage containers and shade nets to improve hygiene and conservation.

iii) Reduction of public health risks in IDP sites and PoC sites

To mitigate the public health risk posed by improper handling of slaughter and presence of unvaccinated and free-roaming dogs, especially in the PoCs, urgent measures must be taken to support the prevention and control of zoonotic diseases including Rabies, Anthrax, Mange and Tuberculosis. FAO will undertake a Rabies vaccination campaign in collaboration with UNMISS and will work to promote the establishment of hygienic slaughter slabs within the PoCs, including hygienic disposal of slaughter waste, improved skills on meat inspection and distribution of hygienic containers and tools to producers.

iv) Provision of livestock to affected families

The conflict and fighting has decimated the livestock of large numbers of livestock-dependent households as well as many households who keep relatively small numbers of livestock to supplement their food and income. For these households, the distribution of locally sourced livestock can potentially save their livelihoods. FAO identify 500 vulnerable households and restock them with 5 to 10 sheep/goats each. Nutrition education to enhance the consumption of livestock products in the household will also be included in this process. Nutrition education will be done from time to time, so as to ensure the impacts of enhancing human nutrition are achieved.

v) Restoration of cold chain functionality

In order to pre-position and store greater amounts of vaccines to respond more effectively to disease outbreaks, FAO will continue its work on decentralizing the cold chain infrastructure as well as re-establishing it in critical areas through the repair and maintenance of existing facilities and the establishment of new facilities with some 75 units having been lost in the crisis. FAO will procure and install solar fridges in the hubs and other locations of high livestock concentration and support refrigerator repair and maintenance through the provision of spare parts, training of cold chain technicians and provision of fuel for refrigerators. The three vaccine storage hubs, already partially established, will be strengthened to facilitate rapid access to vaccines throughout the country. The central hub, located in Juba, will be reinforced as the initial locus of consolidation. This requires the provision of a backup generator, improvement of the physical infrastructure as well as a solar power backup system.

A strong capacity building component will directly address the technical maintenance of the cold chain as well as management and quality assurance aspects to cater for proper storage, maintenance, inventory and distribution of vaccines across the country.

Full responsibility over the country's cold chain system for animal health is part of the core mandate of the Ministry of Livestock and Fishery Industries and the respective State Ministries and Livestock Departments. Therefore, FAO is planning for mid-term measures to move into this direction.

Figure 4: Technical Specifications/Kit Composition for CBAHWs

Items description	Quantity
Oxytetracyline 20% injection 100 cc vial (200mg/ml)	**5**
Albendazole 10 % drench. Albendazole Suspension 1000ml/bottle;	**2**
Ivermectin 1% injection 50Ml vial	**2**
Ethidium Bromide 250g injection 100 tabs tin	**1**
Novidum Chloride 250g injection 100 tabs tin	**1**
Tylosine tartrate 20 % 100cc vial (200mg/ml)	**1**
Poultry Louse Powder 500g sachets	**1**
Pink eye powder	**2**
Oxytetracycline wound spray (250ml can)	**2**
Pour on pyrethroids (e.g. cypermethrin, deltamethrin, flumethrin, permethrin) 500ml can	**1**
Parvaquone injection 50Ml vial	**1**
Parvaquone + Furisimide 50ml vial	**1**
Quaternary ammonium (oil based wound dressing) 100ml can	**1**
Disposable Syringes 10 ml /20 ml	**20**
Reusable Syringes Plastic 30 cc slide or luer lock	**5**
Needles G 18 x1/2	**20**
cotton wool	**1**
Disinfectant	**1**
Disposable latex gloves large size/pack of 100	**1**

FISHERIES

Background

South Sudan is replete with numerous bodies of water, including rivers, swamps and wetlands that contain substantial natural fish resources. The Nile (White and Blue) provides major wetland and water resources for freshwater fish in South Sudan. The Sudd, inland delta proclaimed Ramsar site, is the largest source of freshwater fish in South Sudan and breeds eight commercially important species (Nile Perch, Bagrid Catfishes, Nile Tilapia, Carp and Binny Carp, Elephant-Snout Fish, Stubs, Tiger fish, and Haracins). While the actual annual maximum sustainable yield is unknown due to irregular data collection, it is estimated at more than 200 000 tonnes per year[2]. Recent annual fish capture in South Sudan has been estimated at around 143 000 tonnes per year,[3] with a rising trend. At this time, more than 80 percent of fishing in South Sudan is done on a subsistence basis.

Fishing can support vulnerable rural households, contributing to the nutritional needs by diversifying the household food basket and bridging food gaps. The contribution of fish proteins and micronutrients to the daily diet reaches well over 80 percent for populations living along the rivers and permanent swamps. It is estimated that 1.7 million people depend on fisheries for livelihoods, food security and nutrition and/or income[4]. The riverine location of many displaced and host communities represent an opportunity to address moderate malnutrition and restore livelihoods through the use of environmentally friendly and suitable fishing kits and related trainings. The distribution of fishing equipment for capture and conservation to fisherfolk and related capacity development is a high priority as a nutritious and cost-effective option to food assistance. This intervention seeks to address some of the constraints associated with fisheries production and poor access to appropriate fishing inputs as well as the high percentage of post-harvest losses (particularly during the rainy season) by food insecure households.

While responding to immediate humanitarian needs in crisis-affected areas, FAO is committed to enhancing the resilience of vulnerable populations and sustainable fishery resource use in the less-affected areas by increasing availability of and access to suitable fishing and post-harvest equipment and to protein and micronutrient-rich fish-based food sources through input provision as well as appropriate training programmes (including nutrition education) in areas endowed with fish. Access can also be facilitated through voucher systems linking vulnerable consumers to local producer groups. FAO will systematically introduce short modules on practical measures of fish resource protection and sustainable fishing practices as well as nutrition education with a focus on fish preparation in all its training workshops.

[2] Comprehensive Agricultural Development Master Plan (CAMP), August 2014
[3] Idem, August 2014
[4] Idem, August 2014

Subsistence fishing has been gaining importance among nutritionally at-risk populations as a valid alternative livelihood option in South Sudan. Prior to the events of 15 December 2013, a significant portion of the population of South Sudan was dependent on fishery products. As the crisis has moved large numbers of the population to settle along the Nile River and its tributaries, fish have become an even more critical part of the diet, with some portions of the population now entirely dependent on them. Despite high fishery potential and its importance in complementing the food basket, the sector is constrained by many factors including: i) lack of data, fishery management and policy; ii) lack of appropriate fishing technologies and practices, including protection of fish resources; ii) elevated levels of post-harvest losses; iii) lack of skills and organization among fisherfolk, iv) lack of (developed) landing sites and storage facilities; and, v) poor market infrastructure, services and transportation facilities.

FAO intervention

The key objective of the fisheries component of the ELRP is to improve nutrition, food security, livelihoods and income opportunities for the enhanced resilience of vulnerable populations. The situation of IDPs, returnees, host communities and refugees will be eased through the introduction of improved fishing gear and post-harvest technologies and practices and related trainings (including nutrition education). Major issues currently faced by the fishery sector and FAO areas of intervention are outlined below:

i) Provision of appropriate fishing gears and capacity building for fisheries officers and local NGOs on good operational practices and care and maintenance of gear

Many communities and households in South Sudan (including IDPs, returnees, host communities and refugees) currently lack access to basic fisheries inputs. FAO will facilitate access to fishing equipment, such as ready-made gill nets, twine, hooks, mending needles, floats and monofilament, through the provision of emergency livelihood fishing kits and related training regarding the use, maintenance, care of fishing gears and their adverse impacts on the environment and ecosystem. FAO will promote and introduce fishing gear that is economically efficient and environmentally friendly[5]. All fishing gear procured by FAO is compliant with the existing national legal and regulatory framework and in line with the FAO Code of Conduct for Responsible Fisheries (articles 6, 7 and 8) and good practices contained in the Fisheries and Aquaculture Emergency Guidance (p52 onwards - http://www.fao.org/3/a-i3432e.pdf). The environmental impact of fishing gear will be closely monitored[6] and fisherfolk and extension agents will receive appropriate training in their use.

ii) Provision of appropriate knowledge and equipment to reduce post-harvest losses

Fish is a product which decomposes rapidly and, unless preserved or processed, it needs to be sold and consumed within a very short time. It is estimated that around 30-40 percent of all fish catch at the national level is currently lost due to poor post-harvest handling and processing. In South Sudan, full

[5] Fishing kit that do not have any threat to the sustainability of the natural resource base
[6] Periodical assessment and formation of co-management groups

understanding of the post-harvest sector including availability of markets remains a challenge, and new opportunities must be gained to ensure the restoration of livelihoods and the enhanced resilience of vulnerable populations and nutrition. As part of the ELRP, FAO will introduce quality fish processing methods as well as good handling and conservation practices including cold boxes, tarpaulins drying racks and nets, salting and fuel-efficient and mobile fish smoking ovens[7]. Practical on-the-job training in processing, handling, post-harvest loss and marketing as well as nutrition education will be given to both fisherfolk with a focus on women and subject matter specialists.

Technical specifications/kit composition

The emergency fishing kits are designed to be lightweight and highly portable allowing them to be delivered by road, water or air and easily carried by beneficiaries moving on foot. In order to ensure beneficiaries are aware of the optimal utilization of the kit contents, FAO will pursue various options as appropriate–providing both rapid training to implementing partners and direct training to beneficiaries. FAO will also distribute instructional pamphlets and seek cooperation with government extension workers and staff whenever possible as well as using community radio networks for the dissemination of technical messaging. The composition of fishing kits will vary as outlined below.

The ecosystem approach to fisheries management will be used as the guiding strategy in the implementation of the fisheries components. In line with this, the distribution plan will ensure that the fishing gear is distributed in a manner that does not concentrate too much gear within a limited area. Recognizing that accountability is not just about satisfaction with input distribution, but is intrinsically linked to the sustainability and future livelihoods, FAO will endeavour to gather fisheries data to ensure fishery resource monitoring.

Distribution will be carried out using pertinent, pre-determined criteria, which take into account the prevailing preferences, traditions and skills in each particular geographical area. The categories and components of items and the number of kits per households are as follows:

Figure 5: Option A of fishing kit

Fishing Material	Unit	Amount	# of household
Hook	Packet of 100 hooks	1	1
Twines	Spool	2	
Monofilament	Coil of 100m	1	
Mending needle	No.	1	
Tarpaulin 6m^2	No.	1	

Figure 2: Option B of fishing kit

[7] Chorokor smoking oven

Fishing Material	**Unit**	**Amount**	**# of household**
Ready -made gill net (90 mt)	No.	1	5
Hook	Packet of 100	5	
Monofilament	Coil of 100 m	5	
Tarpaulin 6 m^2	No.	5	
Mesh wire	No.	5	
cold boxes	No.	2	

Figure 6: Option C of fishing kit

Fishing Materials	Unit	Amount	**# of household**
Ready -made gill net (45 mt**)**	No.	1	3
Hook	Packet of 100 hooks	3	
Monofilament	Coil of 100m	3	
Tarpaulin 6 m2	No.	3	
Mesh wire	No.	3	
Cold boxes	No.	1	

NATURAL RESOURCE AND ENVIRONMENT

Background

The environmental impact of the current crisis, which has led to the concentration of large numbers of displaced people, returnees and refugees in limited areas, is already visible. While cooking of food is an important process in enhancing nutrient availability from food consumed, firewood and charcoal consumption for cooking and basic household needs, particularly for large settlements of refugees and IDPs, contributes to rapid deforestation and environmental degradation, jeopardizing long-term food security in the affected areas. The need for cooking fuel is particularly pressing in areas hosting large numbers of displaced persons. In these acute emergency contexts, the distribution and use of FES can reduce both the amount of wood extracted from the surrounding environment and reduce the exposure of firewood collectors, predominantly women and girls, to protection risks in acutely insecure environments.

While FES can reduce the demand for fuel wood at household level, solutions that can ensure a sustainable and long-term supply of fuel are also needed. Recent assessments have shown the increasing economic importance of traditional charcoal production, which has become a short-term income source for rural populations. However, the traditional mode of charcoal-making is highly inefficient, illustrated by the fact that between 5 and 10 tonnes of wood are needed to make 1 tonne of charcoal. Agroforestry and reforestation activities that integrate, or are coupled with, alternative livelihoods are needed to mitigate the environmental impact of charcoal production, which is exacerbated by the demand for wood fuel by displaced households from crisis-affected areas. Furthermore, sensitization efforts have to be strengthened and underpinned with concrete measures such as the promotion of coppicing and pollarding, as well as increasing responsibility and control of communities over communal woodland and forest areas in collaboration with the State Forest Department in charge of the enforcement of forestry rules and regulations.

Fuel-efficient stoves

FAO is engaging in partnerships under the SAFE Initiative[8] to reduce the need for firewood and charcoal in the short term, while decreasing the pace of deforestation and soil erosion in the medium to long term. Medium-term strategies are necessary to restore the natural vegetation cover in areas of high concentrations of displaced populations – measures that are important for the environment and for ensuring peaceful co-habitation of displaced people with host communities. FAO is working with partners to accelerate SAFE strategies in areas surrounding displaced communities and integrated agro-silvi-

[8] Acknowledging these issues, the Inter-Agency Standing Committee (IASC) established a Task Force on Safe Access to Firewood and alternative Energy (SAFE) in 2007. As part of the task force, FAO together with 24 other humanitarian agencies and NGOs, worked to develop and implement a coordinated multi-sectoral strategy for cooking fuel in humanitarian settings. Building on this strategy SAFE interventions typically include some or all of the following activities: provision and/or production of Fuel Efficient Stoves (FES) and alternative fuels; investments in natural resource management to ensure a sustainable supply of fuel; and promotion of non-woodfuel intensive livelihoods to counter environmental degradation resulting from negative coping strategies.

pastoral systems for host communities bringing, for example, fodder and firewood closer to concentrations of populations.

FES allow for the preparation of a meal for an average sized household of 5–6 people with 0.17 M^3 amount of wood as opposed to the 0.41 M^3 used in the traditional three stones; the stoves promoted by FAO are durable, low-cost, highly portable and lightweight to allow for mobility.

The benefits of FES include:

- reduced expenditure on fuel wood and charcoal if these sources of fuel are purchased rather than collected;
- reduced burden and time spent collecting fuel wood which also limits the associated exposure of firewood collectors, in particular women and children, to physical attack and/or gender-based violence while it increases time for maternal and child care;
- reduced risk of conflict, if there is competition for scarce biomass resources between IDPs and host communities;
- nutritional benefits since FES reduce the risk of women undercooking food or skipping meals to save firewood;
- reduced risk of uncontrolled fires, as well as burns suffered by cooks and children;
- reduced exposure to health problems related to smoke inhalation[9]; and
- have been successfully tested in South Sudan for user acceptability.

In areas where there is less of an urgent need to provide FES due to fewer protection or environmental concerns, women can be trained in the production of mud stoves or ceramic cook stoves, using locally available materials. The locally made stoves have the advantage of being tailor-made for each household. As well as the preferred fuel source, beneficiaries can select the height of the stove, the chimney position, the pot size, etc. to minimize their discomfort while cooking. In addition to the above-mentioned benefits, under certain conditions, production and selling of FES can provide women with additional income to assist in meeting household needs.

Woodlots and agroforestry

In order to mitigate the effects of the crisis on wood land and forests, FAO is promoting community-based woodlot management as well as a reforestation campaign in areas where, less than one year into the crisis, there is already evidence of deforestation. While the use of FES contributes to reducing forest degradation in South Sudan, it is important that steps are taken to rehabilitate existing forest areas and to provide a sustainable supply of fuel wood and/or alternative and cleaner sources of

[9] When cooking is done indoors on three stone fires, women, children and other household members are exposed to chronic obstructive respiratory disease (COPD). The Global Alliance for Clean Cookstoves report that smoke from cooking on three stone fires is the fourth worst risk factor for disease in developing countries and causes four million premature deaths per year – exceeding deaths attributable to malaria or tuberculosis. https://www.academia.edu/5245110/2013_An_assessment_of_improved_and_traditional_cooking_stoves_and_their_implications_on_forests_conservation_in_Sudan_The_case_of_North_Kordofan_State

domestic energy. The establishment of multi-purpose woodlots at community level, composed of various tree species, can diversify livelihoods by providing fruit, honey production, fuel-wood and other forest products for both IDPs and host communities. If properly managed, the establishment of energy woodlots with sustainable extraction of wood for domestic purposes will substantially contribute to protecting the natural resource base on which rural communities in South Sudan crucially depend, lessen the negative impacts of both floods and dry-spells on rural livelihoods and reduce soil erosion. Under mid-term initiatives, along with reforestation efforts, FAO will provide training to concerned communities on tree nursery establishment, silvicultural techniques and sustainable woodlot management.

At the household level, there is potential for promoting Integrated Food Energy Systems[10]. The establishment of agro-forestry systems at the household level can provide food, fuel, income and environmental services that can help to build resilient livelihoods and reduce the reliance on negative coping mechanisms such as traditional charcoal production. There is also potential for engaging with agro-pastoralist households for the purpose of producing biogas from livestock production in cattle camps and less conflict-affected areas.

FAO intervention

The interventions under this output can be adjusted to suit the different prevailing contexts across the country. In UNMISS PoC sites, FAO will provide a combination of firewood- or charcoal- efficient stoves. In more accessible areas where training can be carried out to displaced or vulnerable resident communities, women's groups will be trained on the construction of FES from local materials. Where possible, synergies will be created with the vegetable production activities to be carried out under Output 3 of the Programme to improve dietary diversification and income generation for women. The target beneficiaries of these interventions will span the full spectrum from the most vulnerable IDP or host household receiving a ready-made FES, to the charcoal producing households to be targeted with training in alternative livelihood options such as vegetable production, vegetable and fish processing for value addition and the reduction of food losses.

[10] Integrated Food Energy Systems (IFES) are agricultural systems that produce both food and energy. They vary widely in shape, size and composition, and are broadly categorized into two types. In the first type, food and biomass for energy are produced on the same land. This is done by cultivating food and energy crops at the same time, as in agro-forestry systems, or in sequence, through crop rotations. Either system can be combined with livestock production. The second type maximizes the synergies that exist between renewable energy production processes and the processes involved in crop and livestock production. These systems make use of a variety of agro-industrial technologies, such as gasification or anaerobic digestion that recycle or reuse by-products and other residues created at various steps in the production processes.

GENDER

FAO recognizes the essential role of women in improving household food security and nutrition. For this reason, ELRP interventions will focus as much as possible on women to ensure the entire household unit, and above all women and children, reap the benefits. The planned activities seek to help women as they help their families to manage the consequences of crisis and food insecurity and malnutrition, providing opportunities for income generation, increasing access to nutritious food sources, reducing exposure to gender-based violence, increasing time for maternal and child care and improving cooking practices.

Protection is mainstreamed throughout the programme, making sure at-risk groups' specific needs are taken into consideration and risks mitigated where and when possible. These groups (who could be constituted of women and girls, but also men and boys, elderly, unaccompanied children, minorities, IDPs or civil servants whose salaries have not been paid for months) are at risk of conflict-related or sexual violence, forced conscription, looting, destitution and general insecurity.

This will be done through the following activities:

- The crop and vegetable kits distributed through the programme are designed to be lightweight to enable women to carry/transport them back to their homes easily.
- The livestock kits will help reduce incidence of diseases, thus, livestock body condition and to some extent the quality and the quantity of milk will improve providing women with access to milk for their children and themselves. Furthermore, given that in many livestock keeping communities milk is considered as belonging to women, they are mostly engaged in the sale of milk and butter.
- The distribution of fishing kits for capture and conservation is a high priority as a nutritious and cost-effective complement to food assistance provided by other partners. Some of the fish captured will be consumed at household level to supplement diets or sold for income; this implies that women will be able to spend some of the income from fishing to buy grains and other household necessities.
- Vegetable kits (with vegetable seeds of nutrient-dense and highly productive, short-cycle varieties) will be provided to women to immediately enable access to nutritious food sources with the possibility of locally selling or trading the surplus.
- Fuel-efficient stoves, which are lightweight and portable, will reduce the exposure of women and children to protection risks by reducing the amount of fuel they need to collect. Reducing household demand for fuel will also help to free up time for women to spend on productive activities, such as vegetable production, and for children to receive an education;
- During input distribution, FAO and its partner's staff will ensure compliance with the five key messages on accountability to affected populations (AAP) and on Prevention of Sexual Exploitation and Abuse (PSEA). Feedback mechanisms will also be established and channels communicated with beneficiaries.

- During planned training (fish production and postharvest handling, good agronomic practices, postharvest handling, seed saving, vegetable production and postharvest handling, animal health and CBAHW), various gender aspects will be taken into consideration (season, venue, time, duration and training methodology) to ensure that female beneficiaries in particular, actively participate in the training sessions.
- Gender and age-disaggregated data on programme coverage and impact will be collected, analysed and routinely reported on and programme activities monitored for improvements in self-reliance as well as beneficiary satisfaction for both women and men.

NUTRITION

Malnutrition in all its forms imposes unacceptably high economic and social costs on countries at all income levels. Improving nutrition and reducing these costs requires a multisectoral approach that begins with food and agriculture and includes complementary interventions in public health and education. The traditional role of agriculture in producing food and generating income is fundamental, but the entire food system – from inputs and production, through processing, storage, transport and retailing, to consumption – can contribute much more to the eradication of malnutrition.

In South Sudan, local diets can be very limited in terms of dietary diversification, dominated by grains and meat (or fish in some communities) with low vegetable and fruit consumption. To attain good health and nutritional status, women in particular require sufficient knowledge and skills on the nutritional value of foods as well as on food processing, preparation and ingestion to assist them in making the right choices on food varieties, quantities and combinations for an adequate diet for them and their families.

In many countries, including South Sudan, the issue of high malnutrition rates has been highlighted as a concern; and whilst many agricultural projects assume a trickledown effect on nutrition (resulting from increased and diversified production) this is not always the case, primarily due to insufficient diversity in agricultural produce and poor knowledge on preparation and consumption of safe and diverse foods in the communities. FAO has a key role to play in contributing to the prevention of malnutrition through agriculture, by increasing production and access to safe, diverse and nutritious foods coupled by nutrition education to communities and partners.

In this programme, nutrition will therefore be mainstreamed in the following ways:

- The seeds kits to be distributed to the communities will have diverse seeds that would ensure production of food crops rich in protein, carbohydrates, vitamins and minerals.
- Ensure diversity in production while promoting nutrient dense foods.
- Provision of agricultural inputs and technologies that are favourable to women so as to reduce the energy, time and labour required by women in production. This will in turn assist women to produce more, increase incomes that meet their household needs and have more time to care for themselves and the children; thus, impacting nutrition positively.
- Integrating nutrition education into training programmes for households to enhance their nutritional knowledge, cooking skills and consumption of diverse plant source foods and animal source foods.
- Nutrition education will be integrated into project components, for example, vegetable production and the distribution of FES, providing awareness on improved dietary and cooking practices. Target communities (particularly women) will be provided with illustrative leaflets on correct nutrition information including basic knowledge of what constitutes a nutritious diet and how to best meet the nutritional needs of their families with available resources. This will

involve information on the importance of dietary diversity as well as consumption of vegetables and animal proteins (fish, milk and meat).

- Women will also be provided with information on household preparation, storage and preservation methods for specific food types to minimize loss of nutrients and contamination/infestation.

ELRP 2015 estimated resource requirements

Description	Total (USD)
Output 1	**48,510,000**
Procure and distribute emergency livelihood kits	16,900,000
Livestock interventions	6,510,000
Training	100,000
Prepositioning of inputs for 2016	*25,000,000*
Output 2	**1,640,000**
Fuel Efficient stoves, Agro-forestry and Woodlots	1,490,000
Training	150,000
Output 3	**11,850,000**
Inputs (seeds, tools)	5,000,000
Ox ploughs, etc	2,000,000
Fish processing, marketing	2,000,000
Vouchers, ITFs	2,000,000
Training	850,000
Output 4	**2,315,840**
Cluster coordination	1,315,840
Analysis and Assessments	500,000
M&E and AAP	500,000
Other Costs	
Human Resources	7,000,000
General Operating Expenses	2,000,000
Distribution and Logistics Costs	7,815,000
Subtotal	**81,130,840**
Administrative costs	8,113,084
TOTAL	**89,243,924**