

1. SITUATION ANALYSIS

1.1 BACKGROUND

Decades of marginalization and long-running conflicts have undermined livelihoods and the provision of basic services in Southern Sudan. As a result, populations in the region have limited economic and educational options and experience high levels of poverty, food insecurity and malnutrition.

On 9 January 2005, the Government of the Sudan and the Sudanese People's Liberation Movement/Army signed the Comprehensive Peace Agreement (CPA), which paved the way for the return of millions of internally displaced persons (IDPs) and refugees to Southern Sudan. The CPA has also provided new opportunities for the exploitation of land and resources to build secure, sustainable livelihoods and contribute to the economic growth of Southern Sudan.

Despite recent promising economic growth, Southern Sudan faces massive challenges in the form of widespread poverty, skewed income distribution and the inadequate delivery of social services, which have slowed the progress of food-security initiatives. Over the last ten years, an estimated 1.7 million people have been food insecure and depend on emergency food assistance, while rates of global acute malnutrition (GAM) remain chronically above emergency thresholds.

Role of agriculture

Agriculture is one of the most important components of Southern Sudan's economy, accounting for about 80 percent of employment (including in agro-industries). The majority of the population depends on the agriculture sector, with traditional livelihood systems involving various combinations of cattle rearing, crop production, fishing, wild food collection and trade, depending on geographic location and livelihood zone.

Key facts³

- 80% of households rely on agriculture.
- 1.25 million farming families.
- Each family cultivates an average of 0.91 hectares.
- 1 million hectares of land is cultivated.

Traditional production predominantly relies on family labour, hand power, local seeds and soil fertility that is sustained by a system of shifting cultivation, which is usually determined by the community. All smallholder farmers grow a wide range of sorghum landraces with minor crops of maize, bulrush millet, finger millet and root crops, depending on location.

3 FAO/World Food Programme (WFP) Crop and Food Supply Assessment Mission (CFSAM) report, 2008.

In northern parts of Southern Sudan, other crops are also grown, including groundnuts, which contribute significantly to the household food economy and replace sorghum as the main staple in poorer sorghum producing years, when rains begin later than usual. Groundnuts are also a regular staple and cash crop in the higher altitude areas with more sandy soils.

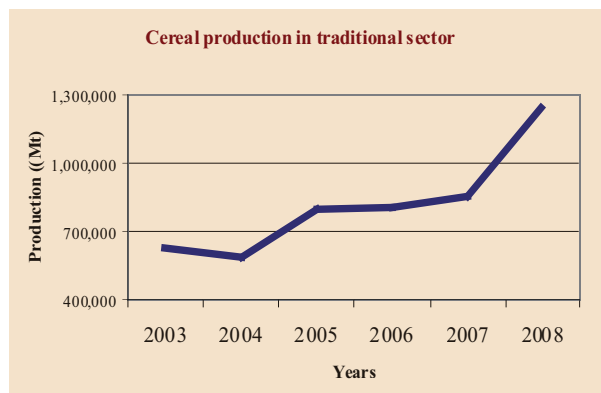
Although sorghum, groundnuts and other crops are also grown in quantity in the south and central areas, cassava is the most important contributor to the local economy, meeting half or more of the carbohydrate nutrition requirements. Minor crops of sweet potatoes, yams, coffee, mangoes and papayas are also grown for home and some localized commercial use.

Cereal cropping, particularly of sorghum, is undertaken over three seasons to spread risks. The varieties are planted as follows:

- short-maturing varieties are planted in May and harvested in August;
- medium-maturing varieties are planted in June and harvested in October/November; and
- long-maturing varieties are planted in May and harvested in November/December.

Crop production, particularly of cereals, plays a critical role in the food security of Southern Sudan's populations. Household food security is determined by access to cereals from either home production or the market.

With an estimated 8 million cattle and 8 million small ruminants (sheep and goats) in Southern Sudan, the contribution of animals to household food economies is considerable. Livestock are an important capital asset and risk management tool for pastoralists and agropastoralists in times of drought. Livestock production is based on a traditional pastoral production system (under which 90 percent of Southern Sudan's animals are reared). Poultry production, under the traditional free-range system, is growing in popularity. Chickens are the main birds raised, although there are also substantial numbers of ducks and pigeons raised, particularly among urban households.



The livestock subsector contributes significantly to meeting the food and income needs of agropastoralists households, directly – through the consumption of meat, milk and other products – and indirectly – by exchanging animals or animal products for cereals or cash, which is used to buy cereals and meet other household needs. The potential of the subsector is constrained by livestock disease outbreaks; low productivity exacerbated by chronic droughts and insecurity; a lack of adequate marketing infrastructure; and poorly organized and informed herders and traders.

Disease is believed to be a key factor in the high losses (over 20 percent) experienced by livestock owners. Poultry production is characterized by high mortality rates due to diseases like Newcastle disease and chicken pox; bacterial diseases such as avian typhoid and parasite loads; inadequate housing and feeding practices; and generally poor management, which reduce productivity.

There is considerable potential for honey and beeswax production in Southern Sudan, estimated at 10 000 tonnes of honey and 5 000 tonnes of beeswax per annum. The production of both has increased, mainly owing to improved beekeeping practices, and honey harvesting and processing methods.

The fisheries subsector is also important, with fish a seasonally important source of food in many parts of the country and throughout the year in the Sudd region. Fish are a key component of household food baskets in most parts of Southern Sudan, particularly in Jonglei, Northern Bahr el-Ghazal, Upper Nile and Warrap states. Fishing also provides households with an important source of income and therefore plays a central role in the food security of fisher families.

Southern Sudan represents about one-third of the total area of the Sudan, but accounts for over 66 percent of fisheries resources. This is largely due to the more than 100 000-hectare Sudd swamps. In general, there is limited fishing pressure on Southern Sudan's waters, with the current catch estimated at 40 000 tonnes per year. Actual fish production across the Sudan is about 60 000 tonnes per year, which is only around 20 percent of its potential productivity. Potential annual yield in Sudd alone is estimated at between 300 000 and 400 000 tonnes⁴.

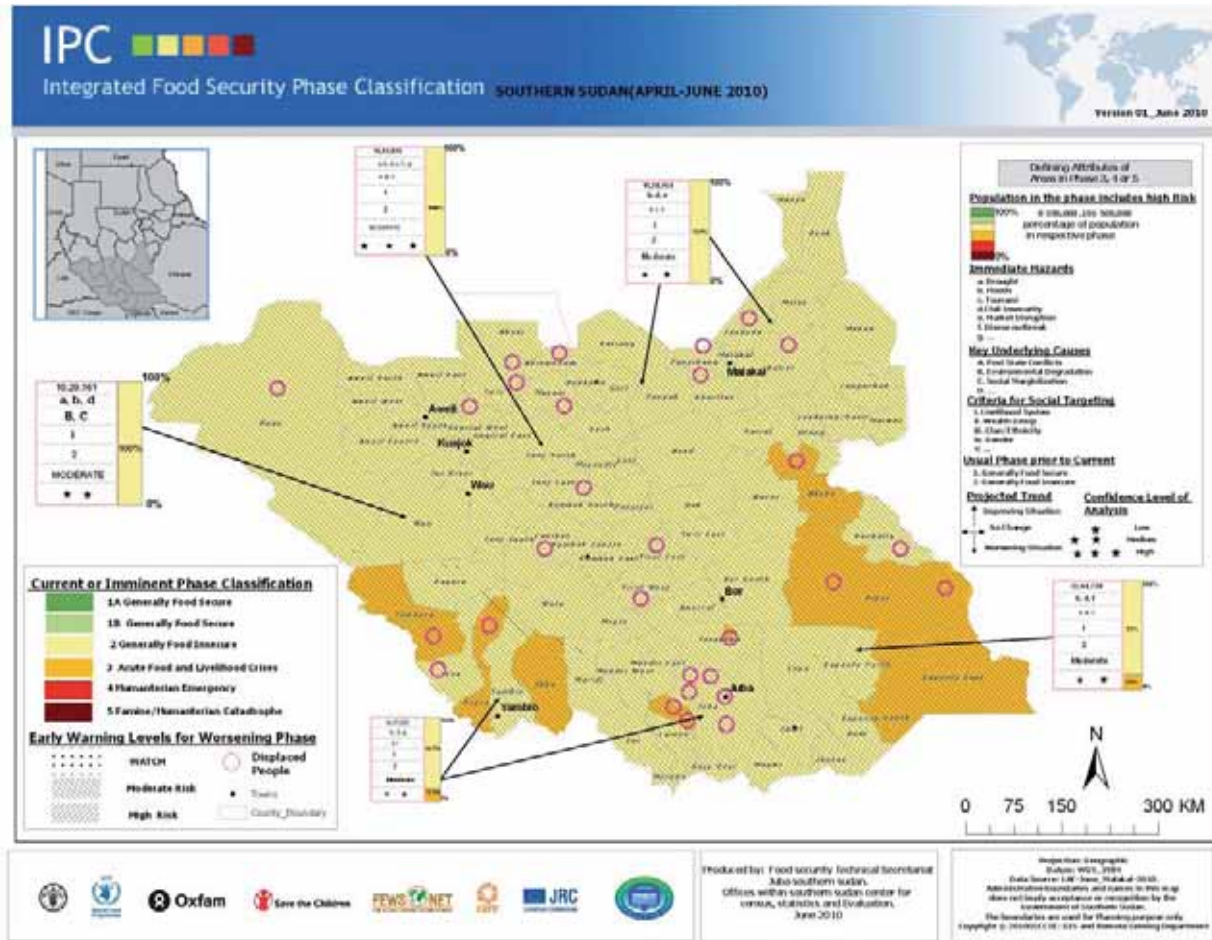
Southern Sudan's vast aquatic and fisheries resources merit higher priority than they have been accorded. The effects of the protracted civil conflict and inadequate institutional framework have severely limited the support that would otherwise have been provided to realize the full potential of the fisheries subsector.

1.2 GEOGRAPHIC PRIORITIES

Southern Sudan is administratively divided into ten states, of which five (Eastern Equatoria, Jonglei, Northern Bahr el-Ghazal, Upper Nile and Warrap) have been on the UN humanitarian priority list in the past two years. These states are particularly vulnerable to food insecurity for various reasons, with the most important being insecurity due to protracted conflict, which particularly affects Jonglei, Upper Nile and Warrap. Conflicts lead to population displacement, the disruption of farming, destruction of production assets, and disruption of trade routes and trading activities, all of which affect access to and availability of food.

4 Food security and livelihoods interventions in Southern Sudan, FAO, 2008.

Figure 1 - Food security situation in Southern Sudan up to December 2009



The five states are equally prone to natural disasters, such as drought or floods (see Annexes 7 and 8), which increase the population's vulnerability to food insecurity. In 2009, the late and sporadic start to the rainfall season led to a significant amount of replanting, the almost complete loss of the first crop in areas with bimodal rainfall (Eastern Equatoria), and poor crop yields in other parts of the country (see Figure 1).

Over a million people still live in IDP camps in North Sudan or in refugee camps in neighbouring countries, many of whom are likely to return to Southern Sudan in the post-election period and in the run-up to the referendum in 2011. Eastern Equatoria, Jonglei, Northern Bahr el-Ghazal and Upper Nile are likely to experience a growing influx of returnees, which will compound their already fragile food security situation.

An estimated 1.7 million people in Southern Sudan have been food insecure in the last ten years⁵, the majority (up to 40 percent) from Jonglei, Northern Bahr el-Ghazal and Upper Nile states; over 20 percent from Warrap state and over 30 percent from Eastern Equatoria state. Vulnerable groups comprise mainly agropastoral households whose food insecurity increases during the rainy or cultivation season (May to August), IDPs whose livelihood activities are disrupted by conflict or natural shocks, returnees requiring support to resettle/reintegrate into society and recover their food production capacities, and very poor households. Food-insecure households tend to have limited livestock or labour, or both. The following briefly outlines the vulnerability context in the five priority states.

Jonglei: The main livelihood systems in the state are agropastoralism, pastoralism and fishing⁶. Food insecurity is mainly related to conflict over natural resources and cattle raiding, the influx of returnees, floods and drought. Jonglei has remained in the Integrated Food Security and Humanitarian Phase Classification (IPC) Phase 3 (acute food and livelihood crisis) since 2008. Some 39 percent of the population is food insecure and 30 percent severely food insecure⁷. The GAM rate is reported at 21.4 percent⁸.

Upper Nile: Livelihoods depend mainly on agriculture, livestock and fishing, with hunting also an important activity⁹. Food insecurity is mainly affected by periods of volatile security linked to migration for water and grazing, delays in rains or flooding, increased food prices, restricted movement and trade activities. Floods and drought have been more frequent in the past decade and negatively affected food production. About 19 percent of the population is severely food insecure with an additional 34 percent moderately food insecure¹⁰. The GAM rate is reported as 14.2 percent¹¹. Upper Nile has fluctuated between IPC Phase 2 (moderately/borderline food insecure) and Phase 3 since 2008.

Northern Bahr el-Ghazal: The main livelihoods are based on livestock, gathering and seasonal labour migration¹². Food insecurity is linked to the return process, with the state having received over 500 000 returnees in the past five years. The area also witnessed conflict before the signing of the CPA, which led to a breakdown in social cohesion and scattering of the labour force. Successive floods and drought have further reduced food production in the state. About 19 percent of the population is severely food insecure, 43 percent is moderately food insecure and 38 percent is food insecure¹³. The state has a reported GAM rate of 28.9 percent and has fluctuated between IPC Phase 2 and 3 since 2008.

5 Various annual needs assessments.

6 Zone 2, 3, 6 and 7 according to the Southern Sudan livelihood profiles.

7 Southern Sudan Annual Needs and Livelihoods Assessment (ANLA) 2010–11 – Jonglei state report.

8 Mid-year ANLA review, WFP, 2009.

9 Zone 2 and 3 according to the Southern Sudan livelihood profiles.

10 Southern Sudan ANLA, 2010–11 – Upper Nile report.

11 Southern Sudan mid-year Review of the ANLA, August 2009.

12 Zone 1 according to the Southern Sudan livelihood profiles.

13 Southern Sudan ANLA, 2010–11 – Northern Bahr el-Ghazal report.

Eastern Equatoria: The main livelihood activities in the state are agricultural and livestock production, as well as hunting, to a lesser extent¹⁴. During 2009, an early and prolonged dry spell and resultant poor harvest and limited availability of vegetation and water were the main constraints to food security. Lower production led to increased cereal prices, which heightened vulnerability. Cattle raiding has also disrupted the livelihoods of pastoralists and agropastoralists, increasing their vulnerability and food insecurity. In this state, 30 percent of the population is considered severely food insecure while 42 percent is moderately food insecure¹⁵. The GAM rate is 8.9 percent. Drought events have recently been more pronounced, pushing the state to IPC Phase 3 since 2008.

Warrap: Livelihoods are predominantly agropastoral, with fishing playing an important role, as do gathering and seasonal labour migration¹⁶. The humanitarian community considers the state under-served in terms of delivery of basic social services and food security and agricultural livelihoods support in recent years. Household food security is mainly affected by the high level of insecurity and outbreaks of violent conflict, large-scale displacement and disruption of livelihood activities, high cereal prices and the poor distribution of rainfall. Food security and livelihood assessments in the state found 20 percent of the population to be severely food insecure and an additional 27 percent moderately food insecure¹⁷. The GAM rate is reported at 20.1 percent. A lack of support, inter-ethnic conflict and recurrent droughts have meant the state, or part of it, has regularly been in IPC Phase 3 since 2008.

1.3 KEY CHALLENGES

Instability and civil conflicts are the main causes of food insecurity, particularly in Southern Sudan. The key challenges for Southern Sudan are many and complex.

Unmet expectations

Five years after the signing of the CPA, there has been considerable progress in establishing functioning institutions, where most were previously absent. About half of the objectives laid out in the CPA have been achieved. However, the real challenge may be that the timeframe is too limited to provide sufficient space for the complex and contradictory processes involved.

As noted by Call and Cousens¹⁸, while peace requires the existence of a state, the process of state building can lead to further conflict if driven too quickly. High expectations for tangible benefits of peace, such as greater stability, improved services and enhanced livelihood opportunities, especially among communities that were most affected by the conflict, have remained unmet, which poses a number of risks. State authorities are struggling to stabilize the states with limited

14 Zone 6 and 7 according to the Southern Sudan livelihood profiles.

15 Southern Sudan ANLA, 2010–11 – Eastern Equatoria state report.

16 Zone 1 according to the Southern Sudan livelihood profiles.

17 Southern Sudan ANLA, 2010–11 – Warrap state report.

18 Call, C. and Cousens, E. (2007), "Ending wars and building peace", Working Paper Series: Coping with crisis, New York: International Peace Academy.

funding, almost no infrastructure and insufficient international support. For example, the Sudan Recovery Fund is the only instrument for stabilization activities.

Factors triggering food insecurity

Food and livelihood security in Southern Sudan are predominantly influenced by: (i) insecurity/conflict; (ii) natural hazards; (iii) low production and productivity of the agriculture sector; (iv) inadequate infrastructure; (v) weak food security and livelihoods institutional set up; and (vi) limited services.

Insecurity/conflict

The scarcity of some natural resources – and, in some cases, the unsustainable use of these resources – has increased the likelihood of conflict in Southern Sudan. Competition over access to pasture, water and forests has, at times, turned violent. Tension between farmers and pastoralists over land use and among pastoralists has resulted in violent conflicts. In 2009, attacks and counter-attacks between various ethnic communities in Jonglei state alone led to the deaths of well over 1 200 people¹⁹.

In addition, recurrent attacks by the Lord's Resistance Army (LRA) in Western Equatoria state are an ongoing threat to the lives and human rights of the population. LRA rebels operating in the Central African Republic, the Democratic Republic of the Congo and within Southern Sudan continue to attack civilian populations, resulting in an influx of refugees to Western and Central Equatoria states. The UN estimates that 18 000 refugees from the Central African Republic, and the Democratic Republic of the Congo and 68 000 Southern Sudanese are residing in refugee and IDP camps in Western Equatoria.

IDPs, disrupted trade and increasing food prices There are currently over 350 000 IDPs in Southern Sudan, who rely on external assistance to meet their food and livelihood needs. In 2009, the number of IDPs was over two-and-a-half times that of 2008. The massive population displacement caused by ethnic conflict and LRA attacks disrupted trade within and between the states, contributing to a rise in food prices.

(2010 UN and Partners' Work Plan for Sudan and ANLA report, 2009)

Insecurity therefore affects the availability of food, both in terms of production and productivity. More importantly, in a protracted crisis, as is the case in Southern Sudan, insecurity impacts on the accessibility of food.

¹⁹ Human Rights Watch.



Natural hazards

Annual rainfall in Southern Sudan usually increases from north to south and from east to west, ranging from less than 500 mm in the semi-arid lands of Eastern Equatoria to a possible 1 800 mm in the green belt. In recent years, the frequency and severity of disasters has increased significantly, particularly those related to hydro-meteorological hazards (droughts and floods). Annexes 7 and 8 show the areas that are prone to drought and flooding, respectively.

In 2007, some 52 219 households (267 506 people) were affected by flooding in all states. Jonglei and Upper Nile were particularly heavily hit, with Jonglei state cut off for several weeks. The floods continued in 2008, albeit on a smaller scale²⁰. The 1998 famine in Northern Bahr el-Ghazal²¹ was the worst disaster in Southern Sudan's recent history, with an estimated 75 000 to 100 000 lives lost (at its peak in July/August 1998, 50 to 100 people were dying each day).

Like insecurity, these natural hazards have a major effect on food security in the region, affecting production, productivity and the accessibility of food.

Low production and productivity of the agriculture sector

Crop production is a key livelihood activity throughout Southern Sudan. Cultivation is characterized by slash-and-burn rotational practices, and the use of rudimentary tools and traditional planting materials. Production is rainfed and subsistence oriented. Poor production methods limit households to cultivating an average of 2 to 4 feddans and yields are often quite low. Productivity is constrained by a lack of access to adequate and improved inputs, poor farming practices, crop pests and diseases, and limited availability of labour.

The main crop disease is the cassava mosaic virus (CMV) and its East African variant. There is a serious risk of the extremely virulent Ugandan variant spreading to Southern Sudan as cross-border population movements continue. Pest infestations, mainly of striga, are also a cause for concern.

Livestock play an important role in the livelihoods of agropastoralists groups, contributing significantly to household food and income. Large numbers of people migrate seasonally in search of pasture and water for their animals. However, livestock production is restricted by inadequate veterinary extension services to control livestock diseases and improve animal husbandry practices, insecurity in the form of cattle raiding and weak livestock marketing infrastructure. Improving the animal health delivery system would greatly improve the food and livelihoods security of agropastoralists communities. The subsector's full potential is not realized due to disease outbreaks, chronic drought, insecurity, limited infrastructure, and poorly organized and informed herders. Many of these problems arise from a lack of capacity and resources to implement

²⁰ Vulnerability, impact of hazards and disasters in Southern Sudan, Study from agriculture, food security, livelihood, and rural development perspectives, FAO, August 2009.

²¹ *ibid.*

policies governing animal production, marketing, trade and veterinary public health, and the absence of reliable data to prioritize sector development interventions (the last official livestock census was conducted in 1976).

Disease is a key factor in the high production losses experienced by the subsector. In 2008, the Sudan was declared free from rinderpest by the World Organisation for Animal Health. However, several other diseases of economic importance remain prevalent and cause significant livestock losses, threaten public health and impede trade. Outbreaks of haemorrhagic septicaemia and contagious bovine pleuropneumonia (CBPP) have led to considerable livestock losses, while tick-borne diseases, trypanosomosis, and internal and external parasites have contributed to low productivity and, sometimes, death. The wide spread of animals across Southern Sudan creates challenges for combating these diseases. There is, therefore, a need for a careful cost-benefit analysis of disease control options and a sound implementation strategy for such interventions.

Fishing communities along the Nile River networks face many challenges, including weak or non-existent infrastructure, such as roads, which makes access to markets difficult to sell produce or buy fishing gear. The fisheries subsector experiences considerable losses linked to a lack of processing skills and materials, and limited access to markets. The impacts of protracted conflict and an inadequate institutional framework have severely restricted the support that would otherwise have been provided to realize the subsector's potential. Massive investment in fisheries would contribute significantly to poverty reduction and sustainable growth in the region.

Inadequate infrastructure

Both agricultural input and product markets are undeveloped in Southern Sudan, which has mainly affected producers who rely on livestock sales to purchase cereals. In addition, the inadequate infrastructure has impacted on surplus agricultural production areas and the overall economy. No effective investment in scaling up production can be made without first strengthening markets and marketing opportunities.

The current system for supplying fresh produce to retail markets in urban areas is dominated by imports (in the case of Juba, by supplies from Uganda). Other than these, inter-regional trade flows only really exist for livestock marketing. Efforts are being made to re-establish the former production levels for fruits and vegetables. However, new or improved market centres in key production areas will be required to supply the evolving wholesale system²².

Stability as a dimension of food security

Stability is another major aspect of food security in Southern Sudan, linked to institutional set-ups and to limited or inadequate services.

22 NFSAP.

Food security and livelihoods institutional setup in Southern Sudan

The food security and livelihoods sector in Southern Sudan is complex and involves numerous stakeholders (including the Government of Southern Sudan, state governments, communities, UN agencies, NGOs and others). The ministries and commissions established by the Government to deal with chronic and transitory food and livelihoods insecurity are still at an early stage and require substantial capacity building. The policies and strategies required to effectively guide food-security programming and interventions are either inadequate or non-existent. Institutional capacity to deal with food security at the state level is even weaker, with mandated Government institutions lacking the human and financial resources to deal with the challenge.

At the national level, MAF and the Ministry of Animal Resources and Fisheries (MARF) are the lead agencies for food-security issues. Recently, the Government has formed a new Ministry of Humanitarian Affairs and Disaster Prevention to deal with natural and human-induced disasters and the associated humanitarian response. A number of other ministries and commissions are also mandated to contribute to food security in Southern Sudan. However, linkages and coordination among the various institutions is still not well defined. The Government still has no effective early warning system that would facilitate a timely response to emergencies.

Limited services

Given the still fragile capacity of the nascent government, service delivery is mainly ensured by international cooperation partners and NGOs.

Health indicators for Southern Sudan are among the worst in the world, despite considerable efforts on the part of many international organizations. Only about a quarter of the population has access to any type of health facility (Sudan Household Health Survey [SHHS], 2006). In 2007, the HIV/AIDS prevalence rate was estimated at 2.6 percent but was noted to be rising. Over 70 percent of women aged between 15 and 24 years had no knowledge of HIV prevention (2010 Work Plan).

More than 50 percent of Southern Sudan's population does not have access to clean drinking water. In addition, access to sanitation facilities is estimated at only 6.4 percent. Wide disparities also exist in water supply and sanitation coverage between urban and rural areas, and between and within the states. Poor access to clean and safe water, sanitation and hygiene practices therefore contributes to high mortality rates and low nutritional status, which are prevalent across Southern Sudan (SHHS, 2006).

Cross-cutting issues affecting food security

Gender

The livelihoods of the most vulnerable community members in Southern Sudan were eroded by the complex emergency situation providing socio-economic and environmental stresses. Decades of civil conflict had a heavy impact on human development, particularly affecting women and children.

Gender statistics reveal gender disparity in all sectors, including education, health and economy (see Table 1). Over 90 percent of women in Southern Sudan cannot read and only 3.5 percent of girls complete primary education (United Nations Office for the Coordination of Humanitarian Affairs [UNOCHA]). In contrast to common demographic patterns around the world, there are more elderly men than women in Southern Sudan, despite the impact of conflict on the male population. This, coupled with a strong adherence to cultural practices, reinforces the continuation of the traditional role of men as household heads and, therefore, decision-makers. Cultural practices favour men in terms of inheritance rights, access to formal and informal employment, and access to, ownership and control over land. It is estimated that 45 to 50 percent of returnees are female-headed, making efforts to address land and property needs of women a key priority in the return and reintegration process.

Table 1 - Selected development indicators for Southern Sudan, 2006²³

Indicator	Value (Southern Sudan)	Value (national)
Health		
Infant mortality rate (per 1 000 live births)	101	81
Maternal mortality ratio (per 100 000 live births)	2 054	1 107
Skilled attendants at childbirth (%)	10	49.2
Under 5 mortality rate (per 1 000 live births)	134	112
Education and literacy		
Primary school net intake rate (%)	6.9	29.5
Primary school net attendance rate (%)	17.2	53.7
Primary school net attendance rate for girls (%)	15.6	51.7
Gender parity index	0.76	0.93
Primary school completion rate (%)	6	19.4
Female illiteracy rate (%)	92	54

²³ Most indicators are derived from the United Nations Children's Fund (UNICEF) and Government-sponsored SHHS, 2007. Female literacy rates are provided by UNOCHA.

Women in Southern Sudan are trapped in a cycle of extreme poverty and household vulnerability. Their traditional role means that they are responsible for providing food for their households, but they do not have control over, nor can they access, the necessary productive resources. While women are the principal producers in the field, they rarely control the output and find it difficult to access the few local market opportunities – their husband or other men in the household often sell the produce and decide how money is spent.

As is the case in many parts of Africa, men in Southern Sudan effectively control land and this is closely linked to their position as household head in both the public and private domains. Control over land provides access to the limited credit opportunities, which are needed to improve food production and farm productivity, and to acquire extension support for improved and effective farming practices. In this context, women, the major contributors to agricultural production, are deprived of much-needed technology and resources to improve cultivation practices and improve the wellbeing of their family.



Despite the availability of natural resource and the fact that women carry out most food production activities and are responsible for household food security, women, particularly in rural areas, are unable to meet that responsibility owing to their limited technical know-how and lack of access to appropriate inputs and tools. These women are in need of significant and urgent assistance.

1.4 FOOD SECURITY SCENARIO IN SOUTHERN SUDAN²⁴

A combination of food production deficits, spreading insecurity and population displacement is likely to continue to affect the socio-economic and political landscape of Southern Sudan over the coming two years. A mix of factors (late rainfall, the disruption of trade routes, and rising food prices in 2009) created a massive food deficit, which is particularly affecting five states: Eastern Equatoria, Jonglei, Northern Bahr el-Ghazal, Upper Nile and Warrap. This situation is likely to continue in 2010–12 and will require interventions to increase agricultural production and productivity in order to mitigate famine and accelerate the recovery of the food-security situation.

²⁴ 2010 UN & partners' Humanitarian Work Plan.

Food security

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life

World Food Summit, 1996

Economic recovery and growth is affected by the Government's and donors' increased preoccupation with the referendum, which is complicating the delivery of services. Remittances from people in the Sudanese Diaspora to their family members in Southern Sudan could decline, further increasing the vulnerability of these households. Foreign and national investment flows could also slow down, worsening the economic situation. However, global oil prices are likely to stabilize at over USD 50 per barrel and increased determination by the Government to improve governance and reduce corruption will result in improved service delivery to the population.

The return of large numbers of IDPs and refugees for the planned referendum is likely, which could place further pressure on the limited basic services. The states most likely to be affected by an influx of refugees are Eastern Equatoria, Jonglei, Northern Bahr el-Ghazal and Upper Nile.

The Government's capacity to enforce law and order and support peacebuilding efforts remains limited. However, the Government is likely to create a conducive environment, which will enable development partners to provide resources to NGOs and civil society organizations (CSOs) to engage communities in peacebuilding, which will contribute to reduced violence and greater peace in Southern Sudan.

Main findings of various food security and crop assessments in 2009

In August 2009, the federal MAF undertook a Rapid Crop Assessment Mission in Southern Sudan's ten states in order to determine the impact of the poor cropping season (due to erratic and below-normal rainfall levels) on crop production and propose measures to mitigate any negative effects. Prior to the Assessment Mission, a mid-term ANLA was carried out in the five most affected states (Jonglei, Eastern Equatoria, Northern Bahr el-Ghazal, Warrap and Upper Nile) by the UN agencies in collaboration with the SSRRC/Government of Southern Sudan and State Ministries of Agriculture (SMoAs) in July 2009.

Both assessments confirmed that the food-security situation in Southern Sudan was of concern and that an immediate intervention was required to save the lives and livelihoods of the most affected populations. The assessment teams estimated that the area cropped in 2009 was reduced by 20 to 30 percent. Overall production was expected to be 30 to 40 percent less than in the previous year, according to the most likely scenario.

In order to obtain the most up-to-date information on the food security situation, a joint FAO/WFP CFSAM was carried out in November 2009. The main findings were:

- A late and sporadic start to the rainfall season led to a significant amount of replanting, almost complete loss of the first crop in areas with bimodal rainfall, and poor yields in many other parts of the country.
- Net cereal production from the traditional sector in 2009 was estimated at 690 000 tonnes, approximately 35 percent below the 2008 amount of 1.07 million tonnes, but only 6 percent below the average of the previous five years of 733 000 tonnes.
- The relatively poor rains in 2009 heightened competition over access to scarce pastures, leading to further conflict among pastoralists. Cattle in pastoralist areas started moving from high to low ground in search of pasture one to two months earlier than usual.
- The terms-of-trade of grain to livestock was heavily in favour of grain, indicating its relative shortage.

Similarly, the results of the WFP-led ANLA contributed to updating the food security situation and forecasting the required response for 2010.

Progress of the 2009 agricultural season²⁵

The available meteorological and Normalized Difference Vegetation Index data confirmed that the rainfall performance between April and July 2009 was very poor in many parts of Southern Sudan, which prevented farmers from planting the short- and medium-maturing sorghum and maize varieties in May and June. The short-maturing sorghum harvest normally helps to bridge the hunger gap in August. However, the poor rainfall from May to July meant the short-maturing variety was not ready for harvest, which extended the hunger gap from three (May to August) to five months (May to October). Some farmers replanted their fields with the expectation that the rains would improve in June/July. However, rainfall remained poor until August, resulting in crop failure and contributed to depleting farmers' seed stocks for the subsequent planting season.

The rainfall from September to December was largely normal to below normal. Above-normal rainfall in the remaining months created a high risk of flooding and crop pests and disease, leading to a further reduction in the expected crop production. However, these risks did not materialize.

The livestock situation improved after the August 2009 rains, as pastures were regenerated in most of Southern Sudan. However, the incidence of diseases such as CBPP, Foot-and-Mouth disease and blackquarter was reported to be increasing. Outbreaks of East Coast fever (ECF) and other tick-borne diseases were reported in areas in which the diseases are not normally prevalent, e.g. in Jonglei state, causing concern about the spread of these from low-density livestock areas of

²⁵ Mid-year ANLA review report, August 2009; Rapid Crop Assessment Report, September 2009 and CFSAM 2009 report.

Equatoria to high-density livestock areas. The geographical expansion of these diseases is linked to issues such as climate change and the uncontrolled movement of cattle between Equatoria and Jonglei, while cattle raiding has exacerbated the spread of ECF to Jonglei and Warrap states.

Increased demand for livestock and poultry products among the growing urban population has led to the importing of cattle, poultry and poultry products from neighbouring countries. Small-scale poultry production is becoming more common in and around major towns, such as Juba, to fill gaps in the supply. However, small-scale producers face challenges related to the availability of chicks, feed and drugs/vaccines, as most of these must be sourced from Uganda or Khartoum, which increases production costs and makes locally-reared poultry more expensive than imported birds.

High cereal and low livestock prices

In 2009, Southern Sudan experienced unprecedented increases in food prices. For example, the price of sorghum rose considerably over the last four to five months. In July, prices were 80 percent higher than the average July price from 2006 to 2008. The main reasons for this increase were: (i) the global food price crisis in 2008; (ii) poor harvests throughout eastern Africa, especially in drought-affected Ethiopia and Kenya, pushing up regional market prices; (iii) newly-introduced taxes on food imports; (iv) food hoarding by traders in anticipation of a poor harvest; and (v) disruptions to commercial trade owing to heightened insecurity.

Livestock prices also decreased sharply as agropastoralist households sold cattle to purchase cereals, which is a key coping measure in Southern Sudan in times of stress. The terms of trade (amount of cereal that can be bought by selling cattle) plummeted for livestock owners. These unfavourable terms-of-trade are forcing thousands of the poorest families out of the food market²⁶.

Production deficit

The combined impact of poor rainfall, higher cereal and lower livestock prices, and conflict has created a serious food-security crisis in Southern Sudan. Large numbers of people require food and other forms of assistance in order to sustain their livelihoods until the next harvest. Based on the November 2009 CFSAM, cereal production in Southern Sudan was estimated at 690 000 tonnes. Compared with a long-term average cereal production of 800 000 tonnes, there will be a deficit of over 100 000 tonnes in 2010. This gap needs to be filled through food aid, commercial imports and households' own food production.

²⁶ 2009 ANLA mid-year review and CFSAM 2009 reports.

Inter- and intra-ethnic conflict

In addition to the poor rains and high food prices, food insecurity in Southern Sudan in 2009 was exacerbated by intensified inter- and intra-ethnic conflict in several states. There are over 350 000 IDPs in Southern Sudan, who rely on external assistance to meet their needs. This includes more than 18 000 refugees who fled from the Democratic Republic of the Congo following LRA attacks. The number of IDPs and refugees in 2009 was over two and a half times that in 2008. Large-scale population displacements as a result of ethnic conflict and LRA attacks have disrupted trade between and within states and contributed to price rises. Communities have been unable to engage in agriculture and fishing activities due to the insecurity, which has led to reduced production in traditionally cereal surplus-producing states such as Central and Western Equatoria.

Undernutrition

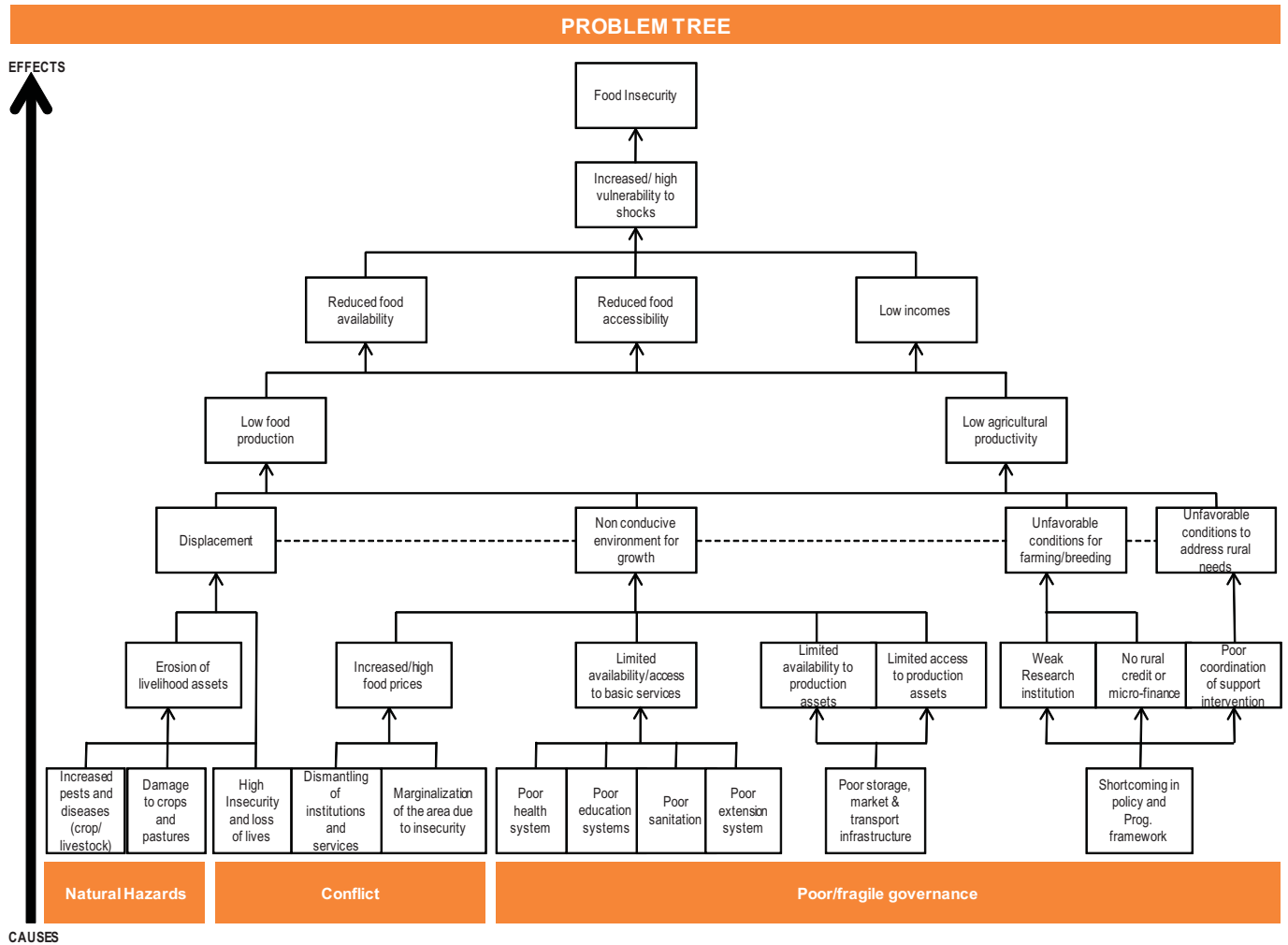
A key outcome of the combination of low productivity and production and constraints to accessing food, experienced throughout Southern Sudan, is high levels of undernutrition. The prevalence of moderately underweight children is estimated at 32.9 percent in Southern Sudan, with the prevalence of underweight children at 42.9 percent and wasting estimated at 14.9 percent. Localized surveys on micronutrient status report night blindness due to Vitamin A deficiency at between 1 and 4.8 percent. Undernutrition not only increases vulnerability to death and disease, it undermines learning capacity and productivity, locking vulnerable households into a cycle of poverty and weakening their livelihoods.

According to the mid-term ANLA, the 2009 shocks compounded an already critical situation of acute malnutrition, which occurs every year in Southern Sudan and contributes to child morbidity and mortality. The ANLA reported the overall GAM rate at 16.9 percent, which is above emergency thresholds. The GAM rate is extremely high because only 5 percent of households use improved sanitation practices and only 50 percent have access to improved sources of drinking water²⁷.

Key factors contributing to increased malnutrition and micronutrient deficiencies among children are poor intake of nutritionally balanced diets; chronic household food insecurity; infectious diseases; and poor health services and sanitation. The SHHS observed that low community awareness and health care seeking behaviours aggravate a situation characterized by extremely high rates of maternal and child mortality. The food security and livelihoods of the vast majority of rural households are undermined by chronic poverty, constrained agricultural production, limited economic opportunities, prolonged disruption and loss of economic activities, and reduced livestock and fisheries production and productivity. High prices for food commodities have left an estimated 76 percent of resource-limited rural populations at risk of survival and serious food insecurity. Most resource-poor farmers produce food below their subsistence requirements. As such, social, political and economic factors are inextricably linked to vulnerability and undernutrition.

²⁷ Mid-year ANLA report, August 2009.

Figure 2 - Food security-related situation analysis



1.5 FUTURE PRIORITIES BASED ON THE SITUATION ANALYSIS

Figure 2 shows a problem tree analysis derived from the situation analysis and key challenges described in the previous sections, and summarizes the problems associated with food security in Southern Sudan, with a clearly established link between cause and effect. It represents a static picture of food insecurity in Southern Sudan, meaning the underlying causes, have remained the same over for more than five years. The difference from year to year is in the severity of the situation in terms of level of vulnerability of the population to food insecurity as a result of these factors.

The analysis of the food-security situation indicates the annual dynamic of food insecurity. Conflicts and natural hazards (drought) have been the main cause of food insecurity, although weak governance has also contributed to increasing the population's vulnerability to food insecurity.

While all ten states of Southern Sudan are affected by food insecurity, the situation is particularly critical in the five identified priority states. In two of these states, food insecurity is caused by a combination of conflict and drought, in another two by drought and in the fifth by weak governance. The factors associated with food insecurity can be seen in all five states, with a variation in the scope and severity of the situation. The type of activities outlined in the response plan vary between the states, depending on the triggers of food insecurity.

Bearing in mind, the food insecurity-triggering factors, the key issues that the FAO emergency and rehabilitation programme needs to address are:

1. dwindling agricultural production;
2. reduced agricultural productivity;
3. problems related to food availability; and
4. the need for more information and coordination to support the agriculture sector.

The next section will examine these areas, and the possibilities for dealing with them, taking into account the implications for planning and the priorities set overall, in order to outline a response analysis for the programme.

Figure 3 - The emergency response protocol for food security

