



## Comprehensive Africa Agriculture Development Programme (CAADP)

### *East and Central Africa Regional CAADP Nutrition Program Development Workshop*

#### **Nutrition Country Paper – Sudan**

**DRAFT**

**February 2013**

*This synthesis has been elaborated in preparation for the CAADP workshop on the integration of nutrition in National Agricultural and Food Security Investment Plan, to be held in Dar-es-Salaam, Tanzania, from the 25<sup>th</sup> to the 1<sup>st</sup> March 2013.*

*The purpose of this Nutrition Country Paper is to provide a framework for synthesizing all key data and information required to improve nutrition in participating countries and scale up nutrition in agricultural strategies and programs. It presents key elements on the current nutritional situation as well as the role of nutrition within the country context of food security and agriculture, including strategy, policies and main programs. The NCPs should help country teams to have a shared and up-to-date vision of the current in-country nutritional situation, the main achievements and challenges faced both at operational and policy levels.*

***This work document will be further updated by the country team during the workshop.***

## General sources used to produce this document

The tableau below suggests a list of sources to consult when completing the NCP. This list has been completed with country-specific documents (e.g. national policies, strategic plans) that are available in your country.

Sources	Information	Lien internet
<b>CAADP</b>	Signed Compact / Investment plans / Stocktaking documents / Technical Review reports if available	<a href="http://www.nepad-caadp.net/library-country-status-updates.php">http://www.nepad-caadp.net/library-country-status-updates.php</a>
<b>DHS</b>	DHS Indicators	<a href="http://www.measuredhs.com/Where-We-Work/Country-List.cfm">http://www.measuredhs.com/Where-We-Work/Country-List.cfm</a>
<b>FANTA</b>	Food and Nutrition technical assistance / select focus countries	<a href="http://www.fantaproject.org/">http://www.fantaproject.org/</a>
<b>FAO</b>	Nutrition Country Profiles	<a href="http://www.fao.org/ag/agn/nutrition/profiles_by_country_en.stm">http://www.fao.org/ag/agn/nutrition/profiles_by_country_en.stm</a>
	FAO Country profiles	<a href="http://www.fao.org/countries/">http://www.fao.org/countries/</a>
	FAO STAT country profiles	<a href="http://faostat.fao.org/site/666/default.aspx">http://faostat.fao.org/site/666/default.aspx</a>
	FAPDA – Food and Agriculture Policy Decision Analysis Tool	<a href="http://www.fao.org/tc/fapda-tool/Main.html">http://www.fao.org/tc/fapda-tool/Main.html</a>
	MAFAP – Monitoring African Food and Agricultural Policies	<a href="http://www.fao.org/mafap/mafap-partner-countries/en/">http://www.fao.org/mafap/mafap-partner-countries/en/</a>
<b>OMS</b>	Nutrition Landscape information system (NILS)	<a href="http://apps.who.int/nutrition/landscape/report.aspx">http://apps.who.int/nutrition/landscape/report.aspx</a>
<b>REACH</b>	REACH multi-sectoral review of existing data on the nutrition situation, programmes and policies	<i>When available</i>
<b>ReSAKKS</b>	Regional Strategic Analysis and Knowledge Support System	<a href="http://www.resakss.org/">http://www.resakss.org/</a>
<b>SUN</b>	Progress Report from countries and their partners in the Movement to Scale Up Nutrition (SUN)	<a href="http://scalingupnutrition.org/resources-archive/progress-in-the-sun-movement">http://scalingupnutrition.org/resources-archive/progress-in-the-sun-movement</a>
<b>UNICEF</b>	Nutrition Country Profiles	<a href="http://www.childinfo.org/profiles_974.htm">http://www.childinfo.org/profiles_974.htm</a>
	MICS: Multiple Indicators Cluster Surveys	<a href="http://www.childinfo.org/mics_available.html">http://www.childinfo.org/mics_available.html</a>
<b>WFP</b>	Food security reports	<a href="http://www.wfp.org/food-security/reports/search">http://www.wfp.org/food-security/reports/search</a>
<b>National Sources</b>	<p>Sudan Household Health Survey 2nd Round 2010, Summary Report, July, 2011</p> <p>Key national policies / documents to be added:</p> <ul style="list-style-type: none"> <li>- Agricultural revival</li> <li>- National Nutrition Policy and Key Strategies available and approved</li> <li>- The National Health Policy</li> <li>- 25 Years Strategic Plan for the Health Sector (2005)</li> <li>- The Rural Development, Food Security and Poverty Alleviation</li> </ul>	

## I. Context – food and nutrition situation

General Indicators		Sources / Year
Population below international poverty line of US\$1.25 per day		
Under-five mortality rate (per 1,000 live births)	79	SHHS / 2010
Infant mortality rate (per 1,000 live births)	57	SHHS / 2010
Primary cause of under-five deaths	26%	WHO/2004
⇒ Rate of death due to neonatal	21%	
⇒ Rate of death due to Malaria	15%	
⇒ Rate of death due to Pneumonia	1/3	
⇒ Rate of death due to Undernutrition		
Maternal mortality rate /100 000 lively births	216	SHHS / 2010
Primary school net enrolment or attendance ratio	75%	SHHS / 2010
Primary school net enrolment -ratio of females/males	0.93	SHHS / 2010
Agro-nutrition indicators		Sources/Year
Cultivable land area (arable land & permanent crops) 1000 ha	19,240	FAOSTAT/2006-08
Access to improved drinking water in rural areas	58%	SHHS / 2010
Access to improved sanitation in rural areas	18%	SHHS / 2010
Food Availability		
Average dietary energy requirement (ADER)	2230 Kcal	FAOSTAT/2006-08
Dietary energy supply (DES)	2280 Kcal	FAOSTAT/2006-08
Total protein share in DES	12.8%	FAOSTAT/2005-07
Fat share in DES	25.9%	FAOSTAT/2005-07
Food Consumption		
Average daily consumption of calories per person		
Calories from protein		
Calories from fat		
Average daily fruit consumption (excluding wine) (g)		
Average daily vegetable consumption (g)		

### Economic Development

*Including specific focus on agriculture*

The economy of the country is mainly depending on agriculture whose contribution to the GDP is about 34.1% in the year 2011. About 70% of the populations earn their living from agriculture. The sustainable use of the diverse agricultural resource potentials of Sudan has been a great hope and a moving target since the time of independence. The main reasons for the frustration of the agricultural development plans are: the low priority assigned to agriculture in the allocation of resources, lack of political stability, the top-down approach to development which reduced rural producers to policy-receivers rather than producers in the policy making process, and the weak administrative and implementation capacity of the government machine. Recently, the Sudan has taken a new and strategic direction to support agriculture.

### Geography, population & human development

*Illustration of HDI, including key statements about the sanitarian and educational situation*

Sudan is a large country (1,882,000 km<sup>2</sup>) and is divided into 16 states in addition to Capital Khartoum (17). Sudan has adverse spectrum agro ecological zone, ranging from desert in the north, semi-arid and savannah supporting the range land, the rain fed farming and some of the largest irrigation systems in the world which are mainly fed by the River Nile and its attributerics and there are also few tropical forest in the South. The total population is estimated at 34, 32 million in 2011. The infant mortality rate is 57 per 1,000 life and under 5 mortality rate 79 per 1,000 live birth. Mortality is very similar in urban and rural.

Sudan's HDI value for 2011 is 0.408 positioning the country at 169 out of 187 countries. Between 1980 and 2011, Sudan's HDI value increased from 0.264 to 0.408, an average annual increase of about 1.4%.

Health in Sudan are typical of most developing countries communicable diseases are prevalent and infant morbidity and mortality from diarrhea especially common vector-born diseases are endemic, including malaria, leishmaniasis. 58% of rural households have access to improved drinking water and only 18% to improved sanitation. About 75% of children of primary school age in Sudan Northern States are attending primary school and only 32% of children of secondary school age are attending secondary school. More boys are attending primary school than girls (SHHS, 2010).

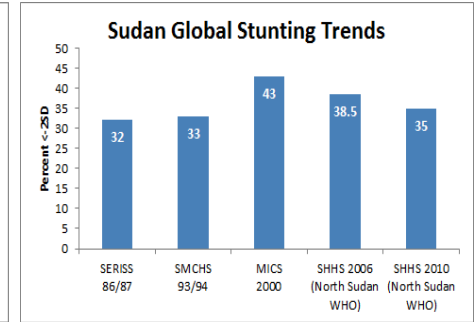
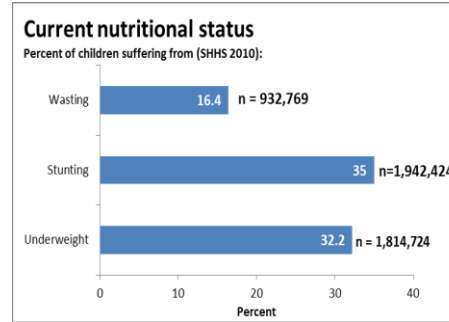
### Food Security (food availability, access, utilization, diet and food habits, and coping mechanisms)

*Main indicators of the food insecurity situation, food accessibility (quality and quantity), diversity, food access, utilization*

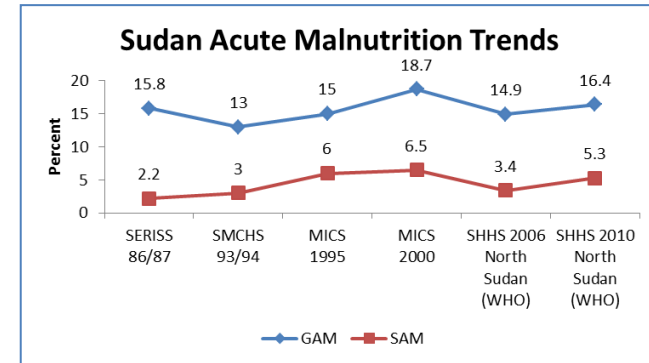
The main food crops in the country are sorghum and millet. Wheat is becoming increasingly consumed specially in the urban areas. In the period 2001 – 2010 grain supply from domestic production varied from about 3.3 to 6.5 million tons with a coefficient of variation of 22%. Although production deficits a generally sluggish rising trend, annual production variations have far-reaching negative effects on food security with challenging decisions on storage, trade and internal food transport. Grain consumption deficits are in fact widespread statewide especially in a war affected states. Production is mainly from the large mechanized agriculture, which clearly reflects clear association of small-holder production with food deficit. Overall, national consumption deficits were huge, amounting to 1.5 and 1.2 and 1.5 million tons in 2008 and 2009, 2011 respectively ,this explain that there is a clear shift in consumption from sorghum to wheat (especially in cities) which is mainly imported. The overall food consumption situation in Sudan is good: 90 percent acceptable, 7 percent in borderline and 4 percent were poor food consumption score (SHHS, 2010).

**Main causes of malnutrition in your country related to economic vulnerability and food security**

- Due to some shortages in natural resources in some parts of Sudan, there are some remote areas suffering from food access causing some problems related to food utilization and malnutrition, in addition some of these states depend on one type of food, this affects the nutritional status of child and adult, resulting in malnutrition.



Agro-Nutrition Indicators (continued)		Sources/Year
<i>Nutritional Anthropometry (WHO Child Growth Standards)</i>		
Prevalence of stunting in children < 5 years of age	35%	SHHS / 2010
Prevalence of wasting in children < 5 years of age	16%	SHHS / 2010
Prevalence of underweight children < 5 years of age	32%	SHHS / 2010
% Women (15-49 years) with a BMI < 18.5 kg/m <sup>2</sup>		
Prevalence of obesity BMI > 30 kg/m <sup>2</sup>		
~ Children under 5 years old		
- Adults		



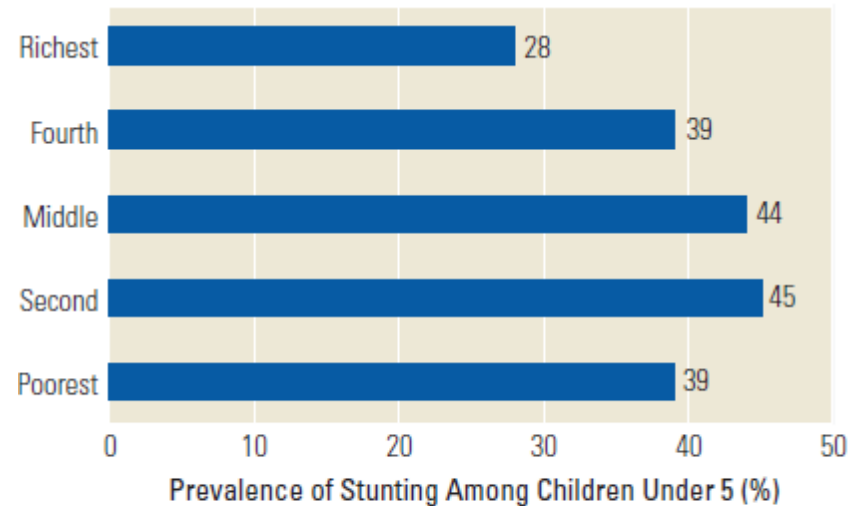
**Nutritional Situation<sup>1</sup>**

*Nutritional Anthropometry ; Including how seasonal patterns impact rates of acute malnutrition ; Including particular geographic areas (incl. urban/rural contexts) / population groups more vulnerable to malnutrition*

Sudan faces four major nutritional problems: protein energy malnutrition, Vitamin A deficiency, Iodine deficiency disorders and nutritional anemia.

The nutrition situation in Sudan is characterized by chronically high levels of acute malnutrition, a trend confirmed by the Sudan Household Survey 2010. One third of Sudan’s children under age five are malnourished, while more than one child in every twenty suffers from severe acute malnutrition and around 13 million people (one out of three Sudanese) suffered from food deprivation. Levels of acute malnutrition have not improved markedly in the last 25 years. The risk of death is particularly high for children with severe acute malnutrition, up to 20 times higher than a healthy child.

Undernutrition is not just a problem of poverty. Children are undernourished in over one-quarter of even the richest households. This is typically not an issue of food access, but of caring practices and disease.



Source: Other Nutritional Survey (figures based on the WHO Child Growth Standards).

Agro-nutrition indicators (continued)		Sources/Year
<i>Infant feeding by age</i>		
Children (0-6 months) who are exclusively breastfed	41%	SHHS / 2010
Children (6-9 months) who are breastfed with complementary food	51%	SHHS / 2010
Children (9-11 months) who are using a bottle with a nipple		
Children (20-23 months) who are still breastfeeding	41%	SHHS / 2010
<i>Coverage rates for micronutrient supplements</i>		
% Households consuming adequately iodized salt ( $\geq 15$ ppm)	11%	UNICEF/2006
Vitamin A supplementation coverage rate (6-59 months)	67%	UNICEF/2008
Vitamin A supplementation coverage rate ( $\leq 2$ months postpartum)		
Prevalence of anemia among pre-school children	85%	WHO/1995-2005
Prevalence of anemia among pregnant women	58%	UNICEF/2008

### Infant feeding

#### *Infant and young child feeding / Maternal nutrition health*

With regard to child feeding in the Sudan, the SHHS 2010 results showed that exclusive breastfeeding practice during the first 6 month of his/her age was relatively low. 41% of children under age 6 months are exclusively breastfed and initiation of breastfeeding immediately after giving birth was found the common practice among 81% of the study population. At two years a similar percentage continues breastfeeding. Half of the children 6-8 months start solid, semi-solid or soft foods. Activities to support exclusive breastfeeding are currently going on, including BFHI and in-service training of health staff at all levels.

### Micronutrients

#### *Micronutrient deficiencies*

Iron: Current rates of anemia among preschool aged children and pregnant women are very high at 85% and 58%, respectively (WHO, 2009).

Vitamin A: 28% of preschool aged children and 16% of pregnant women are deficient in vitamin A.

Iodine: Only 11% of households consume iodized salt, and over 1 million infants remain unprotected from iodine deficiency disorders.

#### **Main linkages between malnutrition and disease**

- Dehydration caused by diarrhea is the major cause of mortality and morbidity. 27% of children >5 had diarrhea in the 2 wks preceding survey & 52% of them received treatment.
- 19% of children <5 had symptoms consistent with pneumonia
- In Sudan 8% of children <5 had fever in 2 weeks preceding survey

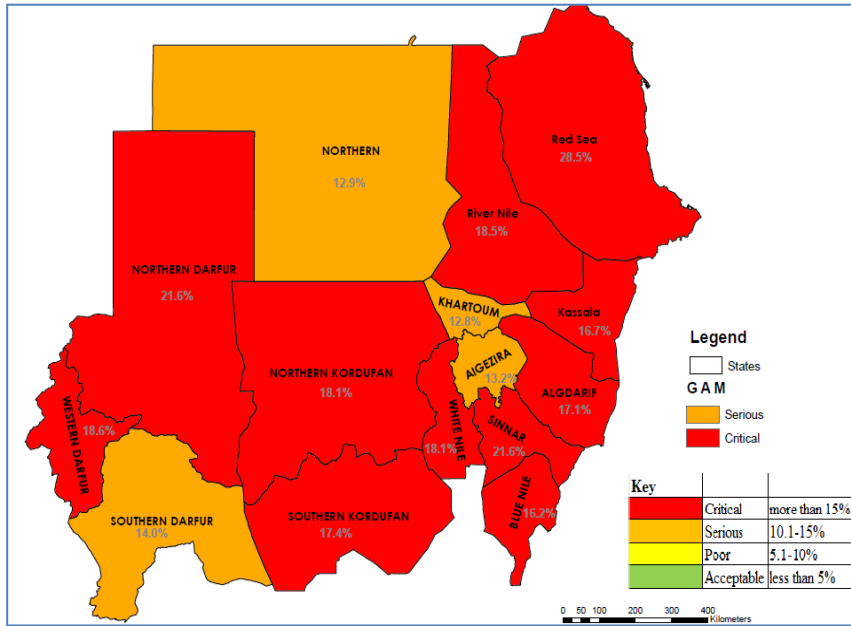
#### **Main linkages between malnutrition, care and sociocultural issues**

- Poor Infant Feeding Practices including low exclusive breastfeeding

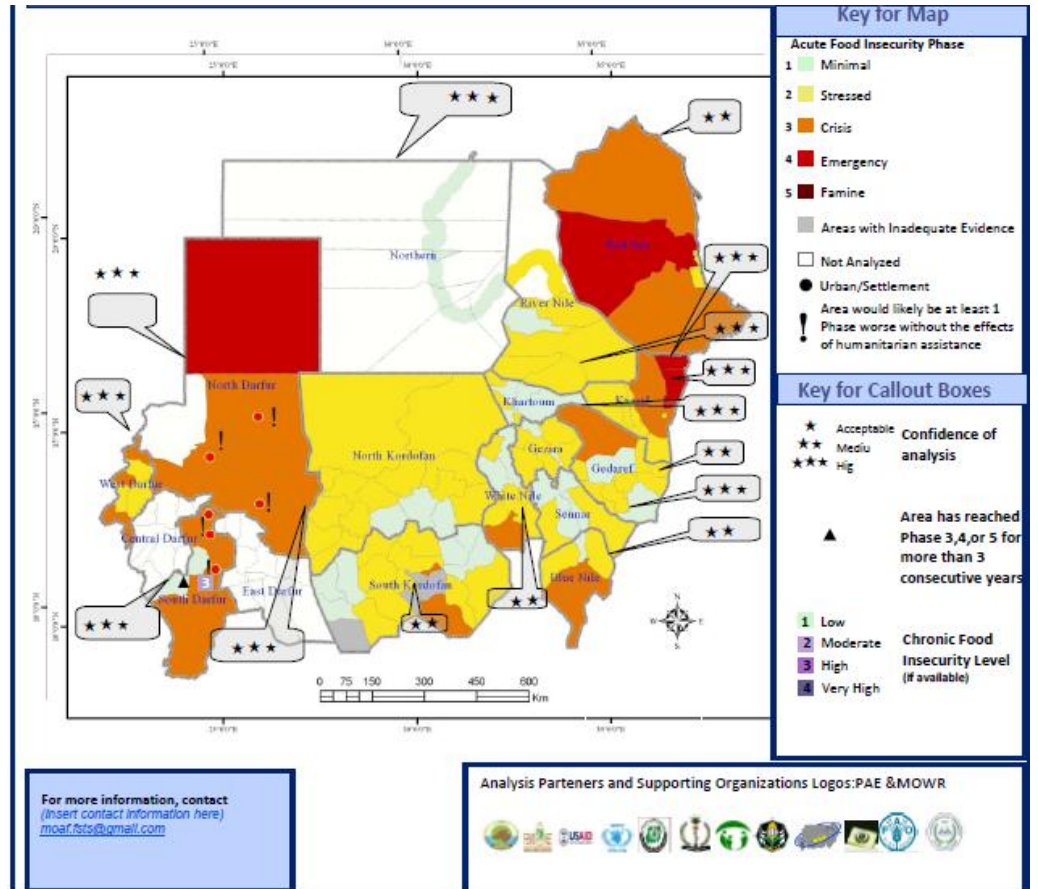
**Malnutrition from the perspective of food insecurity**

Maps sources

Magnitude of the malnutrition problem



IPC – Acute Food Security Situation Overview  
(created on 15/8/2012 – valide from 30/10/2012)



## II. Current strategy and policy framework for improving food security and nutrition

### **Specific strategies, policies and programs currently in place in the food and agriculture sector to improve nutrition**

What are the most relevant policy documents and strategic plans (i.e. policies, strategies and action plans related to nutrition, food security, agricultural development, sustainability, etc.) related to food and nutrition security? How is food and nutrition security addressed in these plans? Are they operational?


Objectives and main activities: What main nutrition sensitive activities are mainstreamed in the different strategies and policies?

Budget: What budget allocations have been made? Any specific line dedicated for food and nutrition security?

Key points: Is nutrition included as an objective of agricultural policies and/or national development plans? If there is a separate Nutrition Policy or Programme, what involvement is there from agriculture? For each policy, illustrate the level of importance, the level of mainstreaming of the nutrition component, the linkages between nutrition and agriculture, the implementation or not of activities and recommendations, the impacts.

Strategy / Policy	Reference Period	Objectives and main components	Budget / Donor	Stakeholders	Key points	Integration of Nutrition
<b>STRATEGIC FRAMEWORK</b>						
<b>AGRICULTURE</b>						
<b>Agricultural Revival /Agriculture transformation plan</b>	<b>2008-2011</b>	<p>The agricultural transformation plan aims at achieving sustainable and balanced economic and social development to reduce poverty and achieve the welfare of the people of Sudan.</p> <p>Direct Objectives:</p> <ul style="list-style-type: none"> <li>Increasing productivity and efficiency at the production and processing stage.</li> <li>Promotion of the exports of crops and livestock with a view to safeguarding against the risks of collapse of the whole economy as a result of the distortions emanating from over-dependence on oil revenues.</li> <li>Realization of food security.</li> <li>Reducing poverty to 50% by 2015, generation of job opportunities and increasing per capita income.</li> <li>Achievement of a balanced growth in all regions of the country with the view to encouraging settlement in the rural areas.</li> <li>Development and protection of natural resources to ensure its renewal and sustainability.</li> </ul>			<p>The government has now declared its political will to accord agriculture highest priority over the other production and serviced sectors. Increased resources will be mobilized to effect agricultural transformation which will result in the transfer of the agricultural sector from a traditional to a progressive modern sector attracting for employment, contributing to poverty reduction and sustainable agricultural development and improvement of the nutritional status of the population.</p> <p><b>The Agricultural Revival consists of many strategies:</b> poverty reduction strategy, food security strategy...etc.</p>	



Strategy / Policy	Reference Period	Objectives and main components	Budget / Donor	Stakeholders	Key points	Integration of Nutrition
<b>Long-term Century Quarter Strategy of the Agricultural Sector (LTS)</b>	2003 – 2027	<p>Main Objectives:-</p> <ul style="list-style-type: none"> <li>• Food security availability at reasonable prices, of stable quantities of safe and nutritious food accessible to all citizens at all times. It was also intended to gradually build a grain reserve equivalent to the consumption requirements of one year.</li> <li>• Promotion of agricultural exports through enhancing the competitiveness of the commodities in which the Sudan enjoys a comparative advantage.</li> <li>• Sustainable development of natural resources and control of desertification.</li> <li>• Poverty reduction through generating employment opportunities, improving living conditions and contributing the overall growth of the economy.</li> <li>• Forward linkage with those sectors supplying agriculture with inputs and backward linkage with those sectors receiving agricultural products and raw materials.</li> </ul> <p>The strategy also included detailed objectives for each sub-sector.</p>				<p>Country point of view : Fill with one of the following symbol :</p> 
<b>National Plan for the Year</b>	2005-2006	<p>The cores of these policies were devoted to enhance the Ministry of Agriculture and Forestry and other related ministries in the following areas:</p> <ul style="list-style-type: none"> <li>• Increasing of participation umbrella.</li> <li>• Ensuring of Federal Governance policies and distribution of roles.</li> <li>• Coordination between the Ministry of Agriculture and Forests and other related ministries. Here, we focus on food security:</li> </ul>				
<b>Rural Development, Food Security and Poverty Alleviation Act</b>	(2005)					



Strategy / Policy	Reference Period	Objectives and main components	Budget / Donor	Stakeholders	Key points	Integration of Nutrition
<b>FOOD SECURITY</b>						
Food security strategy		<ul style="list-style-type: none"> <li>• Available adequate food for consumption through policies encouraging the small producer to produce more and particularly the small farmers in the areas away from the markets.</li> <li>• Take necessary steps towards reducing the big variation in the prices of the main food crops.</li> <li>• Strengthening the capacity of the strategic reserve corporation so that it provides for a reserve of the basic foods adequate for two years and also provides for the needs of the victims of the drought, the displaced, the elderly and widows etc.</li> </ul>				
Food security policies (FSP)		<p><b>Policies to support food access</b></p> <ol style="list-style-type: none"> <li>1. Market and trade policies to stabilize food prices</li> <li>2. Food and fiber processing industries</li> <li>3. Social and humanitarian interventions (in close cooperation with NGOs and regional and international organizations)</li> </ol> <p><b>Policies to support food utilization</b></p> <ol style="list-style-type: none"> <li>1. Medical and health care in designing programs to incorporate food security information and</li> <li>2. Educational and nutritional awareness</li> <li>3. Water and sanitation</li> <li>4. Other food utilization interventions</li> </ol> <p><b>Food Security action plan:</b> targets the improvement of Food and nutrition Situation, through Promoting smallholder based agriculture and food production.</p> <ul style="list-style-type: none"> <li>• Improving food access, food quality and stability</li> <li>• Strengthening rural services and improving the policy and institutional environment for food security</li> </ul>				

<i>Strategy / Policy</i>	<i>Reference Period</i>	<i>Objectives and main components</i>	<i>Budget / Donor</i>	<i>Stakeholders</i>	<i>Key points</i>	<i>Integration of Nutrition</i>
<b>NUTRITION</b>						
<b>National Nutrition Policy</b>	2008-2012	<p>10 Policy themes are set out in the National Nutrition Policy:</p> <ol style="list-style-type: none"> <li>1. Prevention, detection and treatment of nutrition related disorders</li> <li>2. Addressing the inter-generational cycle of malnutrition</li> <li>3. Food utilization</li> <li>4. Using an integrated approach to address malnutrition and morbidity</li> <li>5. HIV / AIDS</li> <li>6. Develop systems and guidelines to safeguard quality food production that meets food security standards</li> <li>7. Utilize social mobilization, nutrition education / behavior change communication and advocacy strategies to promote improved knowledge and nutritional practices through all health facilities, at community level and through the general media</li> <li>8. Capacity building</li> <li>9. Multi-Sectoral engagement in nutrition related activity</li> <li>10. Nutrition information, research and advocacy</li> </ol>		Ministry of Health (FMOH)		
<b>CMAM program</b>	2010				CMAM was adopted in 2010 and gradually expanded to cover 13 states. Under the CMAM program, a total of 272 Supplementary Feeding Programmes centres/ 440 Outpatient (outpatient care)sites at family health units and family health centers. 12% (96902) of cases on need of treatment (742781) was covered.	
<b>Essential Nutrition Package</b>					The ENP is implemented at National scale, covering all 17 states of Sudan. Coverage of growth monitoring is 25%. Coverage of health facilities implementing nutrition services is only 36.6%.	

<i>Strategy / Policy</i>	<i>Reference Period</i>	<i>Objectives and main components</i>	<i>Budget / Donor</i>	<i>Stakeholders</i>	<i>Key points</i>	<i>Integration of Nutrition</i>
<b>HEALTH &amp; SOCIAL PROTECTION</b>						
National Health Policy	(2006)					
National Child Health Policy	(2006)					
National Reproductive Health Policy	(2006)					
25 Years Strategic Plan for the Health Sector	(2005)					
National Policy on HIV/AIDS	(2004)					

### ***Institutional execution framework linked to food security and nutrition***

*Which are the institutions responsible for, and participating in the design and implementation of FNS policies and programmes?*

#### Main entities in charge of implementing the food and nutrition policy framework

*What types of support structures, institutions, programmes, initiatives exist at central and community levels to strengthen household FNS (formal, non-formal, traditional etc.)? Anchorage, Main ministries involved, role and responsibilities, coordination mechanisms (task force, core group, cluster...)*

Policies and key strategies addressing food and nutrition are taking place in various ministries, including the Federal Ministry of Agriculture and irrigation, Federal ministry of health, , the Federal Ministry of Education, Federal Ministry of Water Resources; however each sectors having separate policy and strategy to solve the problems of malnutrition and food security.

#### Main technical and financial partners

*Role, responsibilities, coordination...*

#### Disaster prevention/management structures

*What are the disaster prevention/management structures in place at central and local levels? Do these operate effectively? What more can be done?*

#### Adherence to global / regional initiatives linked to nutrition (e.g. SUN, REACH...)

*What global/regional initiatives is the country adhering to in order to promote food and nutrition security? Is it of any value to IP implementation?*

*What institutions exist at regional level that promote FNS and could be of value to IP implementation?*

#### **Analysis of on-going process within nutrition-linked regional and international initiatives**

*(Ex: Reach, SUN, CAADP...)*

- ...
- ...

### III. Analysis of current and future country nutritional actions & perspectives

#### Institutional framework & funding

*Main evolutions in terms of institutional framework, linked with nutrition and main trends in terms of financing mechanisms*

Overall the Ministry of Health budget as a percentage of the National budget is just 5.6% (Sudan National Health Accounts 2008 preliminary report), and nutrition interventions are not given a high priority within this. Nutrition activities rely heavily on donor funds and on NGO support, especially for treatment activities as current government funding to CMAM is minimal, and only committed at State level in those States with a strong nutrition directorate

#### Consideration of nutritional goals into programs / activities related to agriculture and food

*Analysis of the Mainstreaming Nutrition in different sectors, and at the institutional level*

#### Main food and agriculture programmes and interventions being implemented to improve nutrition in the different sectors (health, agriculture, food security...)

*Description and analysis of these main activities (mainly the ones mentioned above in the institutional framework) Emphasize multisectoral initiatives, Classify according to main levels and axis to address malnutrition*

For concerns of the rural sector in Sudan, FAO has supported the Government of Sudan in the field of sustainable agriculture and food security since 1997, when the Special Program for Food Security (SPFS) was initiated on a pilot scale in North Kordofan on water control. Building on the positive experiences, the program has expanded and is currently active in four states, supported by FAO through trust funds with Libya, OPEC and Spain. In support of food security at the community and household level on irrigation and water development, land improvement, crop intensification and small ruminants' production.

Also, The Unit of Special Program for food security in Planning and Agricultural Economics Administration in the Federal Ministry of Agriculture submit a proposal for cultivation of vegetables for the development of forest in Guli village to Food and Agriculture Organization (FAO) so as to be funded, the FAO agreed to finance the small project as an extension of the Special Program for Food Security in the Sudan which has proven successful and achieved the desired goals. The program began activated in 12/2011; the total amount received \$ 10,000 for the implementation of the first phase, followed by the second phase.

In line of food security Sudan's program comprise emergency response and recovery activities that aim to rebuild the food security and livelihoods of households affected by conflict and natural disasters (returnees, host communities and the displaced). Rehabilitation activities run parallel to the FAO's longer-term recovery program, which aims to build institutional capacity for improved policy, rural service delivery and local private sector development.

#### Quick-impact agriculture and livelihoods project in South Kordofan and Blue Nile:

The Food and Agriculture Organization of the United Nations has signed a \$USD 1.45 million agreement with the **Japan International Cooperation Agency (JICA)** (Khartoum, 8<sup>th</sup> May 2012) to implement this quick project. The most vulnerable people affected by fighting in both states will be supported to produce their own food in order to strengthen food security and reduce dependence on food aid. Almost 240,000 Internally Displaced Persons, returnees, and other vulnerable people must be assisted. It will be implemented in calm areas that are not under fighting. Support will be provided for more than 25,000 households in South Kordofan and 12,000 households in Blue Nile to grow food including sorghum, maize, sesame, okra, cowpeas, beans, pumpkin, tomatoes and watermelon. The participants will also be encouraged through short training sessions to adopt more productive, sustainable farming practices. More than 2,000 mostly woman-headed households will be provided with training and basic equipment to engage in income-generating activities such as fish drying and milk processing including cheese-making. In order to reach the neediest people even in remote areas, FAO closely collaborate with national implementing partners and provide them with technical and organizational guidance and support.

#### Interventions Under the emergency response For management of malnutrition

Availability of CMAM services has greatly increased over the last 2 years and the number of children being treated for severe acute malnutrition has greatly increased, however coverage remains poor both in terms of geographical spread across the 15 States and local level program reach. As well as this the security situation means that humanitarian access to the neediest populations is not possible.

Program data from 2010 shows that estimated coverage of SAM children at National level was approximately 12% for the year. Estimates of number of children with SAM in a year are taken from the SHHS (SHHS1 for 2007 – 2009, and SHHS2 for 2010) and the sharp increase between 2009 and 2010 represents the change from the NCHS Reference to the WHO Growth Standards. It is clear from this graph that although the roll-out of CMAM has helped to increase coverage, there remains a large gap between needs and services available.'

**Prevention of malnutrition:** micronutrient initiatives & Infant and young child feeding

**There has been good progress at passing the federal level food act or salt iodization laws** although there is significant governmental commitment for these laws. Seven states now have state laws on universal salt iodization. USI Launching was conducted in Red Sea state in 2012. Talks have been initiated with major flour millers in country to fortify all flour with iron and folic acid, and with sugar producers to fortify sugar with Vitamin A, however national level legislation and high level government commitment is now needed to move these interventions forward.

**The issue of infant and young child feeding (IYCF)** has attracted great attention over years. Particularly the Baby-friendly Hospital Initiative, the International Code of Marketing of Breast-milk Substitutes, and Protection, Promotion and Support of Breastfeeding.

**Work is now starting to support exclusive breastfeeding**, including training health staff using approved WHO training packages, and training for mothers and community support groups including training on counseling skills.

**Essential Nutrition Package:** The essential nutrition package is implemented at National scale, covering all 17 states of Sudan. It includes routine interventions implemented through all health clinics including growth monitoring, micro-nutrient supplementation for pregnant and post-partum women and monitoring of low birth weight. Over the last 2 years there has been a large amount of investment in training staff to carry out these activities,. Coverage of growth monitoring is approximately 6% (Jan-Jul 2011) of children less than 5 years across all 17 States, and this proportion falls when considering the proportion who returned for the correct number of follow-up visits

**Child health days** are also implemented twice per year and ideally include Vitamin A supplementation and de-worming for all children 6 months to 5 years. So far in 2011, the Ministry of Health has not permitted mass de-worming to be carried out due to fears of the un-safety of tablets for children. Vitamin A coverage in accessible areas is high according to campaign data; however there remain pockets of hard-to-reach areas and national coverage was shown to be 60.5% on the 2010 SHHS.

### **Main population groups targeted & localisation**

*Analysis of the targeting mechanism / What is the scale in which those programmes and interventions are being implemented at national level, provincial or district level?*

### **Monitoring & Evaluation mechanisms**

*Description of the monitoring & evaluation mechanisms, main indicators collected and used (multi-sectoral approach)*

- The National Nutrition Program, with the support of partners, has strengthened the nutrition information system to ensure the availability of high quality information.
- Nutrition Surveillance: The national Nutrition Information System comprises information from selective feeding centers (CMAM program), routine nutrition services (including growth monitoring and vitamin A supplementation), National level and localized nutrition surveys, and sentinel sites surveillance system that and input from secondary data on food security, health, security and population movement. Nutrition program data bases have been developed including a data base for routine reports , a CMAM data base, a nutrition surveys data base and recently a web- based system for monthly data collection and reporting .

### **Coordination mechanisms (public-public, public-private, technical and financial partners)**

*Analysis of these mechanisms, and suggestions of improvements*

Lack of a strong nutrition coordination within sectors and programs

### **Main management and technical capacities at the institutional level**

*Managerial capacities of line ministry staff at national, provincial and district levels?  
Technical capacities of Ministry staff and agriculture service providers and R&D sector?*

**Main issues at stake to improve the mainstreaming and scaling-up of nutrition at the country level and regional / international level, taking into account sustainability**

*Success factors, challenges, main priorities*

**Success and challenges for agriculture:**

Success

- The introduction of many technologies in irrigation sector
- The establishment of Strategic Reserve Corporation
- Increase cooperation with other countries and international organization, etc/

Challenges:

- Lack of modern technology and services in the traditional sector
- Increase in the consumption of wheat which increase the load on hard currency
- Weakness in the Monitoring and Evaluation System in the Ministry, so the support of decision makers are important.

**Success and challenges in scaling-up priority nutrition program and interventions**

Success:

- Status of NNP which allows strong collaboration with other institutions, UN organization and NGOS.
- Mandate by policy advice on food and nutrition Strategies in the country
- Existence of a National Nutrition Policy that guides implementation of nutrition activities in the country
- At present the most important change has been the adoption in 2010 of community management of acute malnutrition (CMAM) as national policy for treating severe acute malnutrition

Challenges:

- Lack of full mandate of coordinating nutrition activities in the country
- Programming continues to be given a low priority in the government with the Primary Health Directorate and it continues to be weak.
- Inadequate financial resources for advocating the implementation of nutrition activities.
- The bulk of funds in the Nutrition interventions are directed towards treatment of malnutrition and less attention was given to the prevention of malnutrition.
- There is no legislation on food fortification.

**Main issues at stake to improve the mainstreaming and scaling-up of nutrition at the country level and regional / international level, taking into account sustainability**

Challenges (continued):

- Essential Nutrition Program components especially growth monitoring (which is considered to be one of the nutrition surveillance tools ) have poor coverage
- Growth monitoring needs to be strengthened to act as an early.
- No updated baseline data on Micronutrients deficiencies the most recent information is the MICS 1997

Opportunities:-

- Presence of partners willing to support or invest in nutrition (e.g. UNICEF, WHO, FAO, NGOS).
- Involving private sectors to achieve NNP objectives , which at times advocating for nutrition (salt iodization, RUTF production )
- Recently Attract government support for scaling up nutrition through expansion of PHC services expansion.
- Presence of some committed national and leaders who can campaign/advocate for improved nutrition.

Threats

- Nutrition is not a priority for some of the key stakeholders at different levels
- The multidisciplinary nature of nutrition reduces sectoral responsibility and accountability
- Many areas in the country suffering from high rate of malnutrition and poor nutrition interventions are neglected because they are not the areas of the donor interest,



## Definitions

Acute hunger	Acute hunger is when the lack of food is short term, and is often caused when shocks such as drought or war affect vulnerable populations.	Multi-stakeholder approaches	Working together, stakeholders can draw upon their comparative advantages, catalyze effective country-led actions and harmonize collective support for national efforts to reduce hunger and under-nutrition. Stakeholders come from national authorities, donor agencies, the UN system including the World Bank, civil society and NGOs, the private sector, and research institutions.
Chronic hunger	Chronic hunger is a constant or recurrent lack of food and results in underweight and stunted children, and high infant mortality. “Hidden hunger” is a lack of essential micronutrients in diets.	Nutritional Security	Achieved when secure access to an appropriately nutritious diet is coupled with a sanitary environment, adequate health services and care, to ensure a healthy and active life for all household members.
Direct nutrition interventions and nutrition-sensitive strategies	Pursuing multi-sectoral strategies that combine direct nutrition interventions and nutrition-sensitive strategies. Direct interventions include those which empower households (especially women) for nutritional security, improve year-round access to nutritious diets, and contribute to improved nutritional status of those most at risk (women, young children, disabled people, and those who are chronically ill).	Severe Acute Malnutrition (SAM)	A weight-for-height measurement of 70% or less below the median, or three standard deviations (3 SD) or more below the mean international reference values, the presence of bilateral pitting edema, or a mid-upper arm circumference of less than 115 mm in children 6-60 months old.
Food Diversification	Maximize the number of foods or food groups consumed by an individual, especially above and beyond starchy grains and cereals, considered to be staple foods typically found in the diet. The more diverse the diet, the greater the likelihood of consuming both macro and micronutrients in the diet. <i>Source : FAO</i>	Stunting (Chronic malnutrition)	Reflects shortness-for-age; an indicator of chronic malnutrition and it is calculated by comparing the height-for-age of a child with a reference population of well-nourished and healthy children.
Food security	When all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.	Underweight	Measured by comparing the weight-for-age of a child with a reference population of well-nourished and healthy children. Reflects a recent and severe process that has led to substantial weight loss, usually associated with starvation and/or disease.
Hunger	Hunger is often used to refer in general terms to MDG1 and food insecurity. Hunger is the body’s way of signaling that it is running short of food and needs to eat something. Hunger can lead to malnutrition.	Wasting	Wasting is calculated by comparing weight-for-height of a child with a reference population of well-nourished and healthy children. Often used to assess the severity of emergencies because it is strongly related to mortality. <i>Source : SUN Progress report 2011</i>
Iron deficiency anemia	A condition in which the blood lacks adequate healthy red blood cells that carry oxygen to the body’s tissues. Without iron, the body can’t produce enough hemoglobin, found in red blood cells, to carry oxygen. It has negative effects on work capacity and motor and mental development. In newborns and pregnant women it might cause low birth weight and preterm deliveries.		
Malnutrition	An abnormal physiological condition caused by inadequate, excessive, or imbalanced absorption of macronutrients (carbohydrates, protein, fats) water, and micronutrients.		
Millennium Development Goal 1 (MDG 1)	Eradicate extreme poverty and hunger, which has two associated indicators: 1) Prevalence of underweight among children under five years of age, which measures under-nutrition at an individual level; and, 2-Proportion of the population below a minimum level of dietary energy consumption, that measures hunger and food security, and it is measured only at a national level (not an individual level). <i>Source : SUN Progress report 2011</i>		

## Acronyms

ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
AUC	African Union Commission
BMI	Body Mass Index
CAADP	Comprehensive Africa Agriculture Development Program
CILSS	West Africa Regional Food Security Network
CIP	Country Investment Plan
COMESA	Common Market for Eastern and Southern Africa
CORAF	Conference of African and French Leaders of Agricultural Research Institutes
DHS	Demographic and Health Survey
EAC	East African Community
ECOWAS	Economic Community of West African States
FAFS	Framework for African Food Security
FAO	Food and Agriculture Organization
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
JAG	Joint Action Group
MICS	Multiple Indicator Cluster Survey
NAFSIP	National Agriculture and Food Security Investment Planning
NCD	Non-communicable Disease
NCHS	National Center for Health Statistics, Centers for Disease Control & Prevention
NEPAD	New Partnership for Africa's Development
NPCA	National Planning and Coordinating Agency
PRS	Poverty Reduction Strategy
REACH	Renewed Efforts Against Child Hunger
REC	Regional Economic Community
SGD	Strategic Guidelines Development
SUN	Scaling-Up Nutrition
UNDP	United Nations Development Program
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
WFP	World Food Program
WHO	World Health Organization

<sup>1</sup>In 2006, reference norms for anthropometric measures have been modified : from NCHS references to WHO references. To compare data measured before and after 2006, we usually use NCHS references.