Primarily nutrition contributes largely to the health of children as well as their development and well-being. Furthermore nutrition affects the health outcomes of mothers, elderly and people suffering major communicable and non-communicable diseases.

Despite the great efforts made during the last decades to improve the nutrition of Sudanese people, mainly those at risk segments- under five children and mothers, still the evidence shows unfavourable nutrition indicators.

It’s then increasingly recognized that sustainable gains in the health and nutrition of Sudanese population and achievement of MDGs, will not be achieved without integrated inter-sectoral actions and approaches to ensure a wider socio-economic development.

With this background, the Federal Ministry of Health, Sudan and through a rigorous multi-sectoral consultation process has developed a National Health Sector Strategy 2012-2016.

The National Nutrition Strategic Plan 2014-2018 has been developed with wide stakeholders and multi-sectoral participation. It outlines the broad evidence based strategies that will be used in Sudan to provide basic nutrition services for the treatment and prevention
of malnutrition and to address the underlying causes of malnutrition.

It builds on the nutrition policy 2008 and the NHSS 2012-2016.

We are expecting that this strategy will serve as a tool for collective inter-sectoral actions to improve the nutrition of Sudanese people.

Mr Bahar Idris..Abo Garda
Federal Minister of Health
ACKNOWLEDGMENT

The Federal Ministry of Health (FMOH) acknowledges and appreciates the great technical and financial support extended by the World Food Programme (WFP) to facilitate the development of this strategy document, Dr. Ayoub Al Jewalda World Health Organization (WHO) EMRO for his support by availing the Global and the regional WHO nutrition strategy framework and the United Nation Fund for Children (UNICEF) in their technical inputs, comments and feedback.

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UNICEF, Dr. Amal Abdallah- WFP, Mr. Mohammed Osman Meezan- WFP, Ms Eman Mahoud- WHO and Ms Tibyan Abdo FMOH).

We also wish to thank many staff from other government sectors (Agriculture, Education, WASH, Health, Food Security, etc.) who provided valuable inputs, comments and feedback during the consultation workshop which contributed in improving the document.

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Last but not least without the efforts and contributions of the national nutrition department staff we would not have been able to develop this strategy.

Ms Durria Mohammed Osman FMOH for coordination of the overall process.

Ms Salwa Sorkkatti
Director of National Nutrition Directorate
Federal Ministry of Health
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<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immuno-Deficiency Syndrome.</td>
</tr>
<tr>
<td>BCC</td>
<td>Behaviour Change Communication</td>
</tr>
<tr>
<td>BCG</td>
<td>Bacillus-Cereus-Geuerin</td>
</tr>
<tr>
<td>BMS</td>
<td>Breast Milk Substitutes</td>
</tr>
<tr>
<td>BSFP</td>
<td>Blanket Supplementary Feeding Programme</td>
</tr>
<tr>
<td>CMAM</td>
<td>Community Management of Acute Malnutrition</td>
</tr>
<tr>
<td>CSB</td>
<td>Corn Soya Blend</td>
</tr>
<tr>
<td>CTC</td>
<td>Community based Therapeutic care</td>
</tr>
<tr>
<td>DPT</td>
<td>Diphtheria, pertussis, tetanus vaccine</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture organization</td>
</tr>
<tr>
<td>FEWSNET</td>
<td>Famine Early Warning System Network</td>
</tr>
<tr>
<td>GFD</td>
<td>General Food Distribution</td>
</tr>
<tr>
<td>GMP</td>
<td>Growth Monitoring and Promotion</td>
</tr>
<tr>
<td>IBSFP</td>
<td>Integrated Community-based Blanket Feeding Programme</td>
</tr>
<tr>
<td>IMCI</td>
<td>Integrated Management of Childhood illnesses</td>
</tr>
<tr>
<td>INGOs</td>
<td>International Non-Government Organizations</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>--------------</td>
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</tr>
<tr>
<td>IPC</td>
<td>Integrated food security Phase</td>
</tr>
<tr>
<td>LLITNs</td>
<td>Long lasting Insecticides Treated bed Nets</td>
</tr>
<tr>
<td>MAM</td>
<td>Moderately Acute Malnourished</td>
</tr>
<tr>
<td>MCH</td>
<td>Maternal and Child Health</td>
</tr>
<tr>
<td>MDD</td>
<td>Micronutrient Deficiency Disorder</td>
</tr>
<tr>
<td>MICS</td>
<td>Multi Indicators Cluster Survey</td>
</tr>
<tr>
<td>MNP</td>
<td>Maternal Nutrition Programme</td>
</tr>
<tr>
<td>MUAC</td>
<td>Mid-Upper Arm Circumference</td>
</tr>
<tr>
<td>OTP</td>
<td>Outpatient Therapeutic Programme</td>
</tr>
<tr>
<td>OPD</td>
<td>Outpatient Department (of hospitals)</td>
</tr>
<tr>
<td>PLW</td>
<td>Pregnant and Lactating Women</td>
</tr>
<tr>
<td>RUTF</td>
<td>Ready to Use Therapeutic Food</td>
</tr>
<tr>
<td>SERISS</td>
<td>Sudan Emergency &amp; Response Information &amp; Surveillance System</td>
</tr>
<tr>
<td>SFP</td>
<td>Supplementary Feeding Programme</td>
</tr>
<tr>
<td>SHHS</td>
<td>Sudan Household Health Survey</td>
</tr>
<tr>
<td>SMCHS</td>
<td>Sudan Mother &amp; Child Health Survey</td>
</tr>
<tr>
<td>SSMO</td>
<td>Sudanese Standards and Meteorology Organisation</td>
</tr>
<tr>
<td>TSF</td>
<td>Targeted Supplementary Feeding</td>
</tr>
<tr>
<td>TFC</td>
<td>Therapeutic Feeding Centre</td>
</tr>
<tr>
<td>UNFPA</td>
<td>United Nation Population’s Fund</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>WASH</td>
<td>Water and Sanitation Hygiene</td>
</tr>
<tr>
<td>WFP</td>
<td>World Food Program</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
CHAPTER 1: BACKGROUND AND PROBLEM ANALYSIS


These national policies and strategies, recognize the improvement of the nutrition status of Sudanese population as a key component of the essential health care package with special focus on maternal, child and at risk population health and nutrition. The NNSP is meant to translate the nutrition policy and the overall national health sector strategy into a clear guiding document that will facilitate operational planning and resource mobilization taking into account the Sudan context and its commitment to the Global Nutrition targets endorsed by the sixty fifth World Health Assembly resolution WHA65.6 as well as Sudan’s continued commitment to millennium development goals (MDGs) 2015 and beyond.

In Sudan, the burden of diseases such as infectious diseases and nutrition deficiencies suggest many sectoral interventions in both treatment and prevention parts. On the other side further action to strengthen existing
systems and provision of primary health care services are essential to mitigate nutrition deficiencies and also to streamlining with global direction to improve nutrition status among population.

**Nutrition Status in Sudan**

Sudan has high level of acute and chronic malnutrition indicators. Acute malnutrition measured as global acute malnutrition, GAM is 16.4%, which is above the international ‘emergency’ thresholds of 15%. Severe Acute Malnutrition (SAM) rates are also worryingly high at 5.3% which translates into half a million children suffering from SAM. Put another way, at any point in time, 1 in 20 Sudanese children are severely malnourished, with a greatly increased risk of death (SHHS, 2010). About 35% of children under-fives were moderately or severely stunted (too short for their age). The proportion of children who are stunted is highest in Kassala state (55%) and lowest in Khartoum state (20%). It is higher in rural areas (38.7 %) than in urban areas (25.3 %). Some difference exists among boys (37.4%) and girls (32.6%). Almost one of three under five children (32.2%) in Sudan was found to be moderately or severely underweight. The proportion varies between 15.6% in Khartoum state and 49% in Kassala state. The proportion of moderately or severely underweight
children was higher in rural areas (35.4 %) compared to urban areas (23.6%).

Factors influencing nutrition status in Sudan have been identified by the UNICEF Conceptual Framework for Malnutrition (UNICEF, 1990). The framework identifies the various inter-related factors that determine the population’s nutrition wellbeing to be broadly categorized as immediate, underlying and basic causes. In Sudan, the immediate causes of malnutrition are the inadequate dietary intake and disease. There are many indicators showing the high prevalence of these aggravating factors for malnutrition for instance, approximately 75% of children age 12-23 months received BCG vaccination by 12 months of age, while the coverage for measles vaccine was at 62%. Overall, the percentage of children who had all the recommended vaccinations by their first birthday was as low as 39%. Pneumonia is the leading cause of death in children. The SHHS 2010 indicates that about 19% of children less than five years were reported had symptoms of pneumonia during the two weeks preceding the survey. The proportion ranged from 9% in River Nile state to 31% in South Darfur state. About 66% of them received an antibiotic. It was considerably higher in urban areas (73%) than that for children in rural areas (64%). The proportion of children who had symptoms of pneumonia and had received antibiotics ranged from 51% in South
Darfur state to 81% in Kassala state. Diarrhoea is the second leading cause of death among children under five worldwide. The SHHS 2010 indicated that overall, 27% of under-five children had diarrhoea in the two weeks preceding the survey. The percentage ranged from almost 40% in South Darfur to 17.5% in River Nile state. The peak of diarrhoea prevalence (36%) was observed among children aged 12-23 months. About 22% of children with diarrhoea received oral rehydration solution (ORS), while about 26% received recommended homemade fluids. Overall approximately 40% of children with diarrhoea were treated with oral rehydration solution (ORS) or by any recommended homemade fluid, while 60% did not receive any treatment. The same survey indicates that about 42% of children with diarrhoea were given less than usual fluids to drink, 31% of them were given about the same to drink and 22% were given more than usual to drink during the episode of diarrhoea. There are minor differences in practices among educated mothers and those from rich or poor quartiles. As for eating practices, about 59% of children with diarrhoea were given less than usual to eat, while 25% were given about the same to eat and only 2% of them were given more than usual to eat while 4% were given nothing to eat during the episode of diarrhoea. Malaria is another leading cause of death of children under age five in Sudan. SHHS indicated that about 8% of under five children were ill with fever in the two weeks prior to the survey. The
prevalence peaked at 12-23 months of age. About 65% received anti-malarial treatment; however only 43% have received the treatment on the same or next day.

For food intake, according to SHHS 2010, the overall food consumption situation in Sudan is good. About 99% of the households in Sudan have acceptable food consumption score. This proportion ranges from 77% in West Darfur to 99% in River Nile state. Households in half of the states have acceptable food consumption score above 90%.

For underlying causes of malnutrition; there are many cultural practices that undermine nutrition well-being such as low rates of the exclusive and the continued breast feeding (almost 40% for both), limited dietary diversification either due to lack of food variety or limited knowledge, intra-household food distribution giving priority to men. In addition to, taboos, early marriage, negative perceptions on family planning still predominant among the Sudanese communities. More than one third (38%) of women age 20-49 years have married before 18 years, with substantial variations between urban /rural, educated/none educated women and household’s wealth. The low family planning at (9%) puts both children and mothers at risk of ill health. Moreover, the high illiteracy levels among Sudanese women- that 50% of them are illiterate- is a key
challenge to good nutrition practice. Moreover the wide variation in women enrolment in education compare to men which is 52% for males and 48% for females point out the issue of women empowerment within the Sudanese community. These cultural issues hinder positive behavioural practices needed to improve nutrition situation and maternal and childcare.

Access to basic services is another problem in Sudan. Although there are many efforts to expand the health, nutrition and sanitation services, still less than half of the population have access to the basic survival services which are in turn being provided in a fragmented manner. There is an ongoing national effort to promote integration of primary health care services however; this has not been reflected at the service provision sites.

On the other hand a large portion of the land in Sudan is desert area with inadequate supplies of potable water. Almost 40% of the population lives on degraded land. Use of improved source of water is 61% and use of improved sanitation facilities is 27% with remarkable uneven distribution between states, rural/urban etc. Safe disposal of child's faeces is 46%. Overall about close to less than half of the Sudanese population has sufficient access to basic health, nutrition and sanitation services, considerably limiting their ability to live healthy.
For the basic causes of malnutrition (social political, economic and human resources); Sudan is country of high poverty where 46.5% of the population are below the poverty line with urban and rural as well as states variation (Poverty Reduction Strategic Paper, 2012). There are national policies and projects for poverty reduction and social protection but has its limitations. In addition to the above mentioned issues, during 2013 FMOH led process of development of the national nutrition policy brief with participation of different sectors. This activity helped in putting nutrition high in government agenda and fostered the process for development of food and nutrition security council. The report endorsed by all nutrition related sectors and partners. Its four recommended strategies have been adopted as overall national policy framework for addressing malnutrition in the country. These strategies are community behaviour change and social mobilization, improve food security and livelihood, scale up maternal and child health interventions and services and finally, high level multi-sectorial coordination for addressing malnutrition.
The National Response to Nutrition

The FMOH has made considerable efforts to address under-nutrition, in order to reach the MDG target of halving the number of people suffering from hunger by 2015. Nutrition is emphasized within the current NHSS 2014-2018 as part of the basic package of PHC service. Nevertheless, nutrition is among the core programs addressed through maternal and child health acceleration plan In consideration of the benefits of intervening during the gestational period and children under-5 years old. The plan developed by FMOH and partners to close the gap towards 2015 MDGs. Different nutrition guidelines and protocols have been developed including CMAM, hospital management of SAM, Essential Nutrition Package (ENP), (IYCF) to improve service provision. Although, the current nutrition interventions focus on treatment of acute malnutrition, there is gradual shift towards prevention of stunting with wider multi-sectorial coordination. Major challenges impeding nutrition programme implementation have been identified as poor programme management, lack of strong nutrition coordination within sectors and programs, no legislation on food fortification, Breast Milk Substitute (BMS), maternal and IYCF protection,
as well as cultural practices related to food diversification, breast feeding and health care seeking behaviours, low prioritization of funding to nutrition, poor coverage, inadequate supplies, staff turnover. Nutrition routine service is further compromised by the fact that it is delivered by only nutrition educators who are basically placed at PHC centres only, leaving lower levels deprived of this service. There are 1603 nutrition educators in the country offering growth monitoring, health education and other basic nutrition services, covering only 36% of PHC facilities. Nutrition officers (university graduate) who provide more specialized nutrition services and act on programme management at federal and state levels reach 727. ENP is implemented across Sudan, covering all 18 states; however only 36% of health facilities are providing nutrition services.

The ENP includes Promotion of maternal nutrition and child spacing, Promotion of IYCF including optimal breastfeeding and complementary feeding practices, Growth monitoring and health education with referral of severe and moderate malnutrition cases, Control of micronutrient deficiencies (promote and provide supplementation, promote dietary diversification and fortification), and Promotion of immunisation, family nutrition, dietary diversification and optimal hygiene and sanitation.
CHAPTER 2 - JUSTIFICATION

malnutrition status in the country revealed that despite the national and international investment on under-nutrition crisis in the country, there is static high prevalence of acute and moderate malnutrition during the last 25 years that prevalence of Severe Malnutrition and Global Acute Malnutrition in 1987 was 2.2, 15.8% and steadily increasing to reach 5.1, 16.1 in 2010, respectively which put Sudan is status of continuous emergency. Furthermore, the national figures with regards to stunting over the last 25 years show that that limited progress is made up to now. Analysis of malnutrition problem and its driving factors pointed out to importance of shift towards stunting reduction to ensure better address to malnutrition problem that incorporate the whole problem dimensions and factors. Addressing stunting as key nutrition problem facilitate long term inter-sectorial actions with effective collaboration and coordination to address the multiple underlying causes of malnutrition and integrate nutrition interventions within health, agriculture, social safety net, education, private sector, community and other relevant sectors. This strategic plan is built around the nationally endorsed nutrition policy brief. It aims at putting this report into action though development of practical strategic plan for the coming five years. This document focuses on prioritizing interventions that will be
implemented at national, state as well as at community level. It targets the most vulnerable population groups and households and with full participation of the key stakeholders with focus on building local capacity to ensure that all nutrition interventions are based on locally available resources to reduce the risk of dependency on foreign products.

**GUIDING PRINCIPLES:**

- **Right based approach:** Improving the nutrition status of the population is a human right and is a national and international commitment to MDGs 1, 4, 5 and is greatly contributing to MDG 6.
- **Equity:** Recognizing adequate nutrition to ensure equity in access to adequate food and utilization of services by all Sudanese people that will ensure their health and nutritional wellbeing.
- **Adequate nutrition in-utero and in the first two years of life** is essential for the formation of human capital: the raising of birth weights and nutritional recovery of undernourished infants into healthy childhood states, are viewed as a cost-effective approaches to improving the human capital of countries.
- **Result based planning:** Improving nutritional outcomes is fundamental, not only to avoid the short-
term consequences of increased morbidity and mortality, but also to avoid potential longer-term economic consequences that have been repeatedly identified.

Reduction of malnutrition morbidity & mortality: While humanitarian nutrition interventions are vitally crucial to prevent excess morbidity and mortality, consolidated improvements in nutrition can only be achieved through the on-going development agenda.

Evidence based policy & planning: Strengthen research in nutrition to inform policy and programming.
CHAPTER 3–STRATEGIC ACTION PLAN
GOAL, OBJECTIVES, TARGETS AND INTERVENTIONS

Goal

The overall goal of the national nutrition strategic plan is to improve the nutritional status of people throughout the life-cycle through encouraging Sudan to reposition nutrition as central to its development agenda. It aims to support the country in establishing and implementing nutrition interventions, according to the local situation and resources to protect and promote healthy child and maternal nutrition, prevent acute, chronic and micronutrient under-nutrition. It also addresses emerging issues of over-nutrition to overcome increasing rates of obesity and diet-related non-communicable diseases.

Indicators:

1. National stunting rate by the end of the plan cycle
2. Global malnutrition rate by the end of the plan cycle

STRATEGIC Objectives

1. To create a supportive environment including political commitment, multi-sectoral coordination, and enhance nutrition assessment, monitoring and evaluation.
2. To promote management of acute malnutrition; both severe and moderate malnutrition.
3. To promote prevention of malnutrition through improving infant and young child feeding practices and services and increase micronutrient uptake.

4. To build capacity for programme management in general and for emergency preparedness in nutrition.

5. To enhance community based interventions insuring good nutrition to all age group focussing on women and children and preventing obesity

---

**Targets**

Target 1: 4% 8% reduction of stunting among children under five years.
Target 2: 50% reduction of anaemia in women of reproductive age
Target 3: 20% 30% reduction of low birth weight
Target 4: Increase exclusive breastfeeding rates in the first 6 months up to at least 70% 50%
Target 5: No increase in childhood overweight
Target 6: Reducing and maintaining childhood wasting to less than 10%
## CHAPTER 4: STRATEGIC OBJECTIVES LOG FRAME

### STRATEGIC OBJECTIVE 1: To create a supportive environment including political commitment, multi-sectoral coordination, and enhance nutrition assessment, monitoring and evaluation.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Interventions</th>
<th>Expected result</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of policies and laws supporting nutrition.</td>
<td>Advocacy and sensitization for political leaders to endorse and enact the nutrition supporting laws.</td>
<td>Improved nutrition prevention activities particularly micronutrients fortification and Breast Milk substitutes is regulated. Improved diet therapy activities.</td>
<td>National laws and regulations for food fortification, BMS, USI, advertising of food and beverages and food labelling schemes developed and endorsed. Support state level to enact the food fortification, BMS, USI laws Micronutrient laws.</td>
</tr>
<tr>
<td>% of increase in government budget for nutrition</td>
<td>Allocation of specific budgets for nutrition.</td>
<td>Development of budget line for nutrition at national level.</td>
<td>Negotiation meetings and working groups with MOF, council of ministers and related partners.</td>
</tr>
<tr>
<td>Number of sectors/partners engaged in nutrition prevention and management</td>
<td>Regular advocacy conducted to promote support to nutrition internationally, nationally, state and down to community level</td>
<td>Development of the overall guiding frame for the multi-sectorial approach for addressing nutrition.</td>
<td>National multi sectorial (stunting reduction) strategy developed. Sudan joining the Global movements (SUN), initiatives (1000 days initiative) and approaches (REACH). Development of communication and social mobilization strategy Advocacy campaigns to mobilize communities accreditation of nutrition committee at national and state level.</td>
</tr>
<tr>
<td>Number of conducted studies out of priority ones.</td>
<td>National nutrition research priorities identified and conducted</td>
<td>Nutritional practices and factors behind high burden of malnutrition identified and studied</td>
<td>Multi-sectoral plans for joint address of malnutrition prevention and management</td>
</tr>
<tr>
<td>Progress in improvement of nutrition information system</td>
<td>Nutrition surveillance and information system strengthen</td>
<td>Availability of integrated, accurate and complete nutrition data</td>
<td>Evaluating the impact of programmes and policies on health and nutrition using health impact assessment methods</td>
</tr>
</tbody>
</table>

- Analysis of food environment, including nutritional quality, food prices and marketing practices.
- Study of the role of nutrition, food safety and lifestyle factors in disease development and prevention.
- Determining the micronutrient composition of local foods, both raw and cooked.

| | | | |
| Progress in improvement of nutrition information system | | | |

- Revising current routine information systems to timely avail quality information.
- Making use of current ICT innovations such as Rapid PRO and web-based platforms to facilitate flow of information through reporting channels at reduced cost/time and create automated responses/feedback.
- Integrate various nutrition surveillance systems (NIS, FSMS, EWARS, CNS … etc) functional in the country.
- Timely reporting and wider dissemination to strengthen the use of available nutrition information at various levels.
## STRATEGIC OBJECTIVE 2: To promote management of acute malnutrition; both severe and moderate malnutrition.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Interventions</th>
<th>Expected result</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of PHC facilities providing CMAM services</td>
<td>Increase access to treatment of acute malnutrition</td>
<td>Improve system efficiency and effectiveness</td>
<td>Capacity building of health staff on treatment standards</td>
</tr>
<tr>
<td>Sphere standards for CMAM services performance</td>
<td>Adoption of integrated approach for treatment of malnutrition</td>
<td></td>
<td>Procurement of supplies</td>
</tr>
<tr>
<td>Number of stock outs occurring during a defined time period</td>
<td></td>
<td></td>
<td>Regular supervision</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Development of integration strategy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Development of management and treatment guidelines</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Training of health staff at services level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Integration of IYCF with CMAM, RH and IMCI package and services</td>
</tr>
</tbody>
</table>

## STRATEGIC OBJECTIVE 3: To promote prevention of malnutrition through improving infant and young child feeding practices and services and increase micronutrient uptake

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Interventions</th>
<th>Expected result</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of mother start breast feeding in the 1st hour from delivery</td>
<td>Improve of exclusive breast feeding and complementary feeding time, quantity and quality</td>
<td>Reduction of under 5 years mortality</td>
<td>Introduce of community based IYCF counselling,</td>
</tr>
<tr>
<td>% of women exclusively breast feed up to 6 month</td>
<td></td>
<td>Reduction of acute malnutrition rate</td>
<td>Develop peer to peer voluntary community networks to promote IYCF counselling,</td>
</tr>
<tr>
<td>% of women continue breast feeding up to 2 year</td>
<td></td>
<td></td>
<td>Encouraging food-based strategies in order to address micronutrient deficiencies, such as food fortification.</td>
</tr>
<tr>
<td>% of household consume iodize Salt</td>
<td>Promote maternal and child nutrition through improve up take of the essential micro nutrients:</td>
<td></td>
<td>Iron and folic acid supplementation during pregnancy with focus on adolescent pregnant women.</td>
</tr>
<tr>
<td>% of children receive vitamin A supplementation twice annually</td>
<td>1. Folic acid 2. Vit. A</td>
<td></td>
<td>Encourage calcium for women during</td>
</tr>
<tr>
<td>% and lactating mothers who receive vitamin A supplementation within 6 weeks from delivery</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Iodine

- Home fortification with multiple micronutrients of foods for young children.
- Promoting de-worming of schoolchildren.
- Vitamin A supplementation for children less than five years of age and for mothers six weeks after delivery.
- Zinc supplementation for diarrhoea management
- Ensure supportive working environment for lactating mothers
- Provide counselling on diet and food security to pregnant women.

**STRATEGIC OBJECTIVE 4:** To build capacity for programme management in general and for emergency preparedness in nutrition.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Interventions</th>
<th>Expected result</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of health facilities that provide complete nutrition services package in emergency settings.</td>
<td>Increase coverage of existing nutrition services in emergency situations with support to vulnerable groups.</td>
<td>Improve access and quality of nutrition services in emergency settings</td>
<td>Develop a national preparedness, response and recovery plan for nutrition incorporating all outputs mentioned and streamlined to local forecasted emergencies.</td>
</tr>
<tr>
<td>% of health workers who are trained on management of integrated package of management of malnutrition including emergency.</td>
<td>Training of health staff on nutrition in emergency setting</td>
<td></td>
<td>Include all proven and quality nutrition services within available PHC &amp; adolescent health services in an integrated manner.</td>
</tr>
<tr>
<td>% of population covered by emergency nutrition services</td>
<td>Development of states context specific plans for prevention and</td>
<td></td>
<td>Developing the capacity of national authorities to improve the safety of food along the food chain.</td>
</tr>
<tr>
<td>% of state develop its annual plan according to S3M results and identified priorities</td>
<td></td>
<td>Capacity of state level in nutrition program planning and</td>
<td>Selection of states priorities according to analysis of its performance, factors and characteristics with regards to stunting, acute</td>
</tr>
</tbody>
</table>
control of malnutrition according to the result of S3M
management improved
malnutrition according S3M result.

<table>
<thead>
<tr>
<th>STRATEGIC OBJECTIVE 5: To enhance community based interventions insuring good nutrition to all age group focussing on women and children and preventing obesity.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Interventions</th>
<th>Expected result</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of communities covered with nutrition behavioural change practices</td>
<td>Promoting nutritional knowledge and appropriate attitudes and practices of caregivers towards food, social and dietary customs, family/child care and feeding practices as well as household hygiene.</td>
<td>Healthy food consumption enhanced</td>
<td>Introducing nutrition labelling schemes that support healthy choices at the point of purchase. Raising awareness of the link between nutrition and safe food and water. Promoting low fat, sugar and salt intake among the public</td>
</tr>
<tr>
<td>Progress in implementation of nutrition national advocacy plan</td>
<td></td>
<td></td>
<td>Develop a national advocacy and communication strategy addressing key behavioural changes. Increase community awareness on key healthy and nutrition practices Promote nutrition counselling in PHC centres to obesity and malnutrition</td>
</tr>
<tr>
<td>Progress in promotion of nutrition tackling through school program</td>
<td>Development of pre-school and school nutrition programs</td>
<td>Development of nutrition oriented school’s curriculum Advocate and encourage availability of healthy food such as fruits and vegetables and healthy food distribution points Adopt physical activity programs in line with the global strategy on diet and health</td>
<td></td>
</tr>
<tr>
<td>% of households who adopt home</td>
<td>Promotion of Nutrition prevention</td>
<td>Promotion and investment on small scale and</td>
<td></td>
</tr>
<tr>
<td>garden approach for food diversification</td>
<td>consumption of diversified local food.</td>
<td>enhanced and improved home based agricultural activities (agriculture and fisheries, food processing, marketing and distribution) to ensure food security focusing on needy areas.</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>---------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>No of sector and communities actively supporting nutrition sensitive interventions</td>
<td>Engage other sectors in nutrition prevention and control</td>
<td>Establishing adequate policies for placing nutrition in safety nets and social protection programmes especially for vulnerable groups or indirectly via market interventions or government pricing policies.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advocate and mobilize action for nutrition targeting through poverty alleviation programmes, including school feeding, vulnerable groups including elderly and income-generating activities.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Expand social protection programmes</td>
<td></td>
</tr>
</tbody>
</table>
STRATEGIC OBJECTIVE 6: To promote prevention & treatment of all nutritional disorders

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Interventions</th>
<th>Expected result</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of hospitals providing diet therapy services using National diet therapy protocol</td>
<td>number of hospital that introduced diet therapy protocol</td>
<td>Improve curative system efficiency and effectiveness for nutritional related diseases</td>
<td></td>
</tr>
<tr>
<td>% of government budget for diet therapy</td>
<td>1. Allocation of specific budgets for diet therapy</td>
<td>Development of budget line for diet therapy at hospital level.</td>
<td>Negotiation meetings and working groups with MOF, MOH</td>
</tr>
</tbody>
</table>
## Estimated Cost of the Strategy Interventions in US$

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Creation of a supportive environment, including political commitment,</td>
<td>1,106,000.00</td>
<td>1,184,200.00</td>
<td>2,225,000.00</td>
<td>2,405,000.00</td>
<td>2,365,000.00</td>
<td>2,725,000.00</td>
<td>2,905,000.00</td>
<td>3,105,000.00</td>
<td>3,295,000.00</td>
<td>3,545,000.00</td>
<td>3,795,000.00</td>
<td>4,015,550.00</td>
<td></td>
</tr>
<tr>
<td>multi-sectoral coordination, and enhancing nutrition assessment,</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>monitoring and evaluation.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Management of severe acute malnutrition</td>
<td>59,435,000</td>
<td>68,350,250</td>
<td>78,602,788</td>
<td>90,393,206</td>
<td>103,952,186</td>
<td>118606298</td>
<td>133975509</td>
<td>151233645</td>
<td>169490632</td>
<td>186478617</td>
<td>204693186</td>
<td>221805551</td>
<td></td>
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<tr>
<td>Management of moderate malnutrition</td>
<td>40,620,000</td>
<td>48,713,000</td>
<td>53,719,950</td>
<td>61,777,943</td>
<td>71,044,634</td>
<td>81311556</td>
<td>92565688</td>
<td>107146904</td>
<td>122146425</td>
<td>138360948</td>
<td>154619581</td>
<td>172861102</td>
<td></td>
</tr>
<tr>
<td>Improving infant and young child feeding practices and services and</td>
<td>12,254,339.96</td>
<td>13,712,688.08</td>
<td>15,294,414.54</td>
<td>16,989,663.50</td>
<td>18,813,190.35</td>
<td>21402313.87</td>
<td>23390300.99</td>
<td>28567286.91</td>
<td>30715183.23</td>
<td>33132394.43</td>
<td>36006518.13</td>
<td>396239587</td>
<td></td>
</tr>
<tr>
<td>increase micronutrient uptake</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Capacity building for program management in general and for emergency</td>
<td>1,546,000.00</td>
<td>15,184,250.00</td>
<td>2,225,000.00</td>
<td>2,405,000.00</td>
<td>2,565,000.00</td>
<td>3677211</td>
<td>4931388</td>
<td>4979957</td>
<td>6034415</td>
<td>7952258</td>
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<td>12098955</td>
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<tr>
<td>preparedness in nutrition.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Adoption of life-cycle approach for ensuring good nutrition to all age</td>
<td>12,254,339.96</td>
<td>13,712,688.08</td>
<td>15,294,414.55</td>
<td>16,989,663.50</td>
<td>18,813,190.34</td>
<td>20512178.59</td>
<td>22513656.82</td>
<td>24735804.06</td>
<td>27042791.27</td>
<td>29187580.63</td>
<td>31734995.20</td>
<td>3443782.60</td>
<td></td>
</tr>
<tr>
<td>groups to ensure women and children well-being and prevent obesity</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>TOTAL</td>
<td>127,215,679.92</td>
<td>158,857,126.16</td>
<td>167,361,567.09</td>
<td>190,960,476.00</td>
<td>217,753.200.00</td>
<td>248,234,557</td>
<td>280,281,523</td>
<td>317,069,807</td>
<td>356,576,548</td>
<td>396,239,587</td>
<td>438,074,538</td>
<td>481,221,459</td>
<td></td>
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</tbody>
</table>
CHAPTER 5 – IMPLEMENTATION ARRANGEMENT: COORDINATION & PLANNING

Implementation arrangement: Coordination

The implementation of this strategic plan will be through partnership-based action with Federal, state, local authorities, communities, NGOs, private sector, civil societies and development and humanitarian actors. Partnership is mainly to describe collaboration mechanisms and integration of strategies with FMOH informed by the stakeholders and bottle neck analysis

i. Federal to State and Local Government collaboration and responsibility

Government structures are having the responsibilities to lead and promote the implementation process within their institutes as part of a respective government development plan and priorities. The National level Nutrition Directorate (NND), will liaise with other FMOH departments and programmes which will in turn decentralize actions to their respective states and localities in order to provide services, set standards, and strengthen the links between efforts to address nutrition concerns.

ii. Multi-sectoral actions with line ministries

FMOH will take the lead in lobbying and advocacy between line ministries; in order to ensure coordinated actions, and the inclusion of nutrition related programming in other ministries’ budgets where appropriate. Multi-sector nutrition coordination committee will be established under the umbrella of The National Food & Nutrition Security Council. It will facilitate cross sector information sharing, coordination and collaboration on nutrition related activities as identified through the bottle neck and stakeholders analysis.

iii. International community

The strategy will build on already strong collaboration between United Nations agencies such as UNICEF, WFP, UNFPA, WHO, FAO, NGOs and CBOs working to improve maternal and child nutrition as well as strengthening mechanisms to ensure minimum package of essential services is delivered. Under UN humanitarian reform, the cluster approach has been developed to strengthen coordination and give predictability and accountability to the humanitarian response; the strategy places great importance on improving inter-cluster coordination and collaboration for multi-sectorial approach to address cross cutting factors that determine nutrition status, growth and development in Sudan

iv. Private Sectors:

Private sector has an important potential contribution towards improving nutrition situation; one of the key areas is fortifications in particular flour, salt and oil fortifications, private sectors are
also play appositive role in supporting monitoring and evaluation as well as designing of nutrition topics within existed universities and school curriculums.

v. Community level

Community volunteers and nutrition educators are the key delivery mechanisms of nutrition services in the areas where MOH have no access and also play vital role in ensuring utilization of nutrition education, counselling and social mobilization efforts. On the other hand they are also the backbone in referral system dimensions by identification of malnourished individuals at early stage. The strategy will develop community network for nutrition, lobby for linking the community structure with the national health system, enhance training and sustain actions. Priority will be to emergency prone areas.

vi. Academic, researches and global advocacy institutions:

A new area to be explored is to access expertise from internationally recognized organizations and improve linkage with local organizations and institutes, some of these institutes may include Tufts University, world alliance for breast-feeding Action (WABA), International Baby Food Action Network (IBFAN), Micronutrient Initiative (MI), links to academic institutions can open up options for specific nutrition trainings in the region and distance learning courses.

**Implementation arrangement: planning**

NND will continue to advise on, coordinate, monitor and evaluate nutrition and nutrition related efforts at state ministries and localities of health under the MCH leadership. Guided by the NHSS, the NND will work with these levels to develop national as well as state level operational plans out of this strategy.

Similarly, it will work through the national nutrition coordination committee under of The National Food & Nutrition Security Council, to ensure nutrition sensitive programming and community development are addressed by different sectors. Accordingly with technical assistance of the targeted sectors, the NND shall lead the development of plans and activities for harmonization of planning, implementation and monitoring. This will as well include definition of clear roles for each sector at every level.

Joint planning and piloting demonstration in most needy areas will be considered. It will entail sectoral capacity building of staff to lead, monitor and evaluate such programming.

Focus will be given to address geographical, urban/rural, gender and socioeconomic disparities. The indicators identified in the situation analysis can serve to map needy areas in priority order to enable phased implementation of required interventions as will be achievable during the five years of the strategic plan.
Implementation arrangement: Resource mobilization

Joint planning and implementation will facilitate effective resource mobilization, not only from government resources but will streamline aid effectiveness. It is perceived to attract international development partners. UN agencies and donors as it will serve as the platform for tools like united nation development assistance framework.

The advocacy and communication strategy proposed to be developed will detail means and ways for resource mobilization. At this point all stakeholders identified during the stakeholders analysis are potential sources for funding the strategy. The One health tool was used to cost nutrition programme needs. One obvious limitation is lack of details on costing each element of service package due to the overlap between all components especially with regards to human resources.

CHAPTER 6 – MONITORING AND EVALUATION

This strategic plan covers a five year period. The overall goal is to contribute to the improved survival and development of the Sudanese population through enhanced nutritional status of mothers and children mainly. However, this is too short a period in which to see significant changes in trends of nutritional status indicators according to the global targets. Progress towards global targets will be monitored through the SHHS, due in 2015. Other proxy short and intermediate indicators generated from local surveys conducted by partners and from routine HIS are proposed (refer to M&E matrix annex 2).

This strategic plan will be reviewed and updated on a regular basis. It will be subjected for midterm review in 2015 as part of the process of the update of the national health sector strategic plan. This review process of progress on implementation will be led by the Ministry of Health in collaboration with technical support from the Technical Working Group (TWG) established to supervise the development of this strategic plan. Result of this review will be used for update of the strategy to extend of it duration for another next five years to be in line with national health sector strategic plan period.

Reports on progress will be disseminated to donors, national and implementation partners on an annual basis.
## ANNEX 1

### Framework for M&E of Nutrition Strategic Plan Indicators

#### 2014-2025

<table>
<thead>
<tr>
<th>S.N</th>
<th>Indicator</th>
<th>Definition</th>
<th>Measure</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of policies and laws supporting nutrition.</td>
<td>Number of developed policies, and laws out of the planed one</td>
<td>3</td>
<td>Nutrition program</td>
</tr>
<tr>
<td>2</td>
<td>% of increase in government budget for nutrition</td>
<td>Percentage of increase in government contribution to nutrition out of existing</td>
<td>To be calculated</td>
<td>MOF records</td>
</tr>
<tr>
<td>3</td>
<td>Number of sectors/partners engaged in nutrition prevention and management</td>
<td>Number of sectors/partners join actively and regularly nutrition prevention and management out of the targeted ones</td>
<td>One technical working group</td>
<td>MOH and Sectors’ records</td>
</tr>
<tr>
<td>4</td>
<td>Number of conducted studies out of priority ones.</td>
<td>Number of implemented studies out of the list of research priorities</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>Progress in improvement of nutrition information system</td>
<td>Proxy qualitative indicator out of the progress in improvement of core information system functions</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Number of PHC facilities providing CMAM services</td>
<td>Number of PHC facilities providing CMAM services.</td>
<td>27%</td>
<td>17%</td>
</tr>
<tr>
<td>7</td>
<td>Sphere standards for CMAM services performance</td>
<td>Number of CMAM facilities delivering services meeting the national standards of performance.</td>
<td>13%</td>
<td>17%</td>
</tr>
<tr>
<td>8</td>
<td>Number of stock outs occurring during a defined time period</td>
<td>Number of CMAM facilities that report stock out from the total</td>
<td>N/A</td>
<td>N/A.</td>
</tr>
<tr>
<td>9</td>
<td>% of mother start breast feeding in the 1st hour from delivery</td>
<td>% of mother breast fed in the 1st hour from delivery out of delivered mothers</td>
<td>71%</td>
<td>95%</td>
</tr>
<tr>
<td>10</td>
<td>% of women introduce good complementary food after 6 month</td>
<td>Infants age 6-8 months who received solid, semi-solid or soft foods during the previous day</td>
<td>51.1%</td>
<td>80%</td>
</tr>
<tr>
<td>11</td>
<td>% of women exclusively breast feed up to 6 month</td>
<td>women exclusively breast feed up to 6 month</td>
<td>41%</td>
<td>80%</td>
</tr>
<tr>
<td>12</td>
<td>% of women continue breast feeding up to 2 year</td>
<td>women continue breast feeding up to 2 year</td>
<td>40.1%</td>
<td>75%</td>
</tr>
<tr>
<td>13</td>
<td>% of household consume iodize Salt</td>
<td>household consume iodize Salt with level of potassium iodate more than 35 ppm</td>
<td>9.5%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>% of children receive vitamin A supplementation twice annually</td>
<td>children receive vitamin A supplementation twice annually</td>
<td>95%</td>
<td>100%</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
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</tr>
<tr>
<td>15</td>
<td>% and lactating mothers who receive vitamin A supplementation within 6 weeks from delivery</td>
<td>lactating mothers who receive vitamin A supplementation within 6 weeks from delivery</td>
<td>22%</td>
<td>50%</td>
</tr>
<tr>
<td>16</td>
<td>% of pregnant women receive Fefol tablet from first trimester up to one month after delivery</td>
<td>Pregnant women who receive Fefol tablet from first trimester up to one month after delivery</td>
<td>NA</td>
<td>50%</td>
</tr>
<tr>
<td>17</td>
<td>% of health facilities that provide complete nutrition services package</td>
<td>Number of facilities that provide all nutrition activities per state and national</td>
<td>MOH</td>
<td>100%</td>
</tr>
<tr>
<td>18</td>
<td>% of health facilities that provide complete nutrition services package in emergency settings</td>
<td>Number of CMAM facilities that provide complete nutrition package out of the total exist in emergency settings</td>
<td>To be calculated</td>
<td>To agree upon it and matched with EHA plans</td>
</tr>
<tr>
<td>19</td>
<td>% of health workers who are trained on management of integrated package of management of malnutrition including emergency</td>
<td>Number of health workers who are trained on integrated package of management of malnutrition including emergency out of targeted ones</td>
<td>NA</td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>% of population covered by emergency nutrition services</td>
<td>Number of population receive emergency nutrition services out of targeted ones</td>
<td>NA</td>
<td>-</td>
</tr>
<tr>
<td>21</td>
<td>% of state develop its annual plan according to S3M results and identified priorities</td>
<td>Number of state develop its annual plan according to S3M results and identified priorities out of the total</td>
<td>N/A</td>
<td>100%</td>
</tr>
<tr>
<td>22</td>
<td>% of communities covered with nutrition behavioural change practices</td>
<td>Number of communities engaged in nutrition behavioural change activities out of targeted</td>
<td>NA</td>
<td>-</td>
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<tr>
<td>23</td>
<td>Progress in implementation of nutrition national advocacy plan</td>
<td>Proxy indicator out of the progress in the strategy implemented activities</td>
<td>NA</td>
<td>-</td>
</tr>
<tr>
<td>24</td>
<td>Progress in promotion of nutrition tackling through school program</td>
<td>Proxy indicator calculated out of this objective activity components</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>25</td>
<td>% of households who adopt home garden approach for food diversification</td>
<td>Number of households who adopt home garden approach out of the total targeted population</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>26</td>
<td>No of sector/communities actively supporting nutrition sensitive interventions</td>
<td>Number of sectors/partners put nutrition related activities in their annual plans/activities</td>
<td>NA</td>
<td>-</td>
</tr>
</tbody>
</table>

MOH/EHA records and state level reports

nutritional program records at national and state level

SHHS or S3M

Strategy review and evaluation
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