# SOMALI NUTRITION STRATEGY 2011 – 2013

Towards the

Millennium Development Goals

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# Foreword

Good nutrition is one of the key foundations for the development of a healthy, productive population. Well nourished people are less likely to become ill or die, and are more productive and better able to learn. Achieving good nutrition, particularly among women and children, is associated with important short and long term health, educational and economic benefits.

Situational analysis of data from Somalia over the last decade indicates that undernutrition is a significant and enduring public health problem and a major factor in the failure to meet MDGs on hunger, child health, maternal mortality, gender equality and education. Rates of acute and chronic malnutrition have remained persistently high throughout Somaliland, Puntland and South Central Somalia, with some variation by zone and livelihood system.

Ongoing conflict, displacement, breakdown in social and public services coupled with recurrent droughts and flooding have significantly affected food security and livelihoods and therefore nutritional status. However, there is a growing body of evidence that other underlying causes also contribute significantly to high and persistent undernutrition. These factors include: chronic poor dietary diversity, inadequate infant, young child and maternal feeding practices, poor hygiene practices, water and sanitation, poor health seeking behaviours and low access to quality health services and education and gender inequalities. The persistence of undernutrition, even in years of relative stability and good harvest, adds further weight to the importance of these multiple underlying causes which by their nature cut across traditional sectors. With increasing understanding of the causes and their complexity, the challenge now is to strengthen efforts to address them through an integrated multi-agency, multi-sector response.

The objective of the work carried out by authorities, donors, UN agencies and local and international implementing partners was to develop a joint framework for action to improve the nutritional status of the Somali population, thereby contributing to an overall improvement in their survival, growth and development.

The activities detailed in this strategy aim to respond to the challenges raised above and focus interventions to achieve 6 priority outcomes that will lead to accomplishment of the overall goal: i) improved provision of quality services for the management of acute malnutrition; ii) sustained quality nutritional surveillance and analysis of nutrition information to inform appropriate and rapid responses; iii) improved knowledge, attitudes and practices regarding infant, young child and maternal nutrition; iv) improved availability, accessibility and coverage of micronutrients and de-worming; v) increased redress of underlying negative practices through awareness and commitment to effective action across other sectors and finally vi) improved capacity and means in country to make effective nutrition responses.

The development of the strategy has been based on a number of guiding principles. Primarily the strategy recognises the basic human right to adequate food and health and freedom from malnutrition and disease. It respects the humanitarian principle of ‘do no harm’ such that its’ implementation should not exacerbate or worsen the situation.

A key guiding principle is recognition of the specific context and challenges of implementation in Somaliland, Puntland and South Central Somalia. The multi-sectoral responses identified are based on an understanding of the specific political, economic, social and cultural factors that determine nutritional status. The interventions detailed in the action plan reflect universally accepted best practice and evidence-based programming. However, not all interventions proven effective in addressing malnutrition (The Lancet series on Maternal and Child Undernutrition) are

feasible in the Somali context where the volatile environment, low access, weak infrastructure and legislative framework are major constraints. Therefore, the strategy aims to prioritise and adapt what is proven effective, with what is viable in the context.

Finally, mindful of the importance of using limited resources to greatest efficiency, the strategy focuses on investing in the areas most likely to achieve maximum impact. As such, interventions are targeted at pregnant mothers and children up to the age of two years as the critical window of opportunity for reducing undernutrition and its adverse effects. (Lancet series on Maternal and Child Undernutrition). Furthermore, many of the interventions identified in this strategy correspond to those acknowledged by the Copenhagen Consensus 2008 as the most cost effective interventions for global development.

This strategy has been developed through strong interagency collaboration, with input and endorsement from Somali authorities. It is hoped the strength of this collaboration prevails throughout the implementation phase, in pursuit of a common overall goal to improve the growth, survival and development of the Somali people. The strategy provides the way forward for stronger partnerships within the nutrition sector and between nutrition and other sectors and ministries for coherent action to achieve this shared goal through improving the nutritional status of the population.

Mark Bowden
UN Resident and Humanitarian Coordinator for Somalia

**Statement of the Health Authorities of Somalia**
**On the Somali Nutrition Strategy 2011-2013**

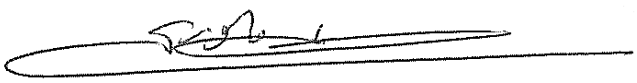
a) Recognising that good nutrition is the foundation for a healthy and productive life;
b) Recognising that Somalia has suffered alarming levels of acute and chronic malnutrition for the past decades, which have impeded the economic development and well-being of the Somali population;
c) Recognising the diversity of actors, their respective role, and their usefulness in improving the quality and the availability of nutrition services in Somalia;
d) Realising the need for a unified and coherent strategy to tackle malnutrition in Somalia;
e) Reaffirming our leadership in spearheading the fight against malnutrition;
f) Committing ourselves to bring all stakeholders to work towards achieving a common goal: *To contribute to the improved survival and development of Somali people through enhanced nutritional status*

We, the Health authorities of Somalia, endorse the Somali Nutrition Strategy 2011-2013

Djibouti, 14 December 2010

H.E. Hon. Dr. Adan Hagi Ibrahim, Minister of Health of the Transitional Federal Government of Somalia

H.E. Hon. Dr Ali Abdullahi Warsame, Minister of Health of the Puntland State of Somalia



# Preface

This Somali Nutrition Strategy has been developed in response to increasing evidence and awareness that the persistently high rates of malnutrition in Somalia are related to multiple underlying causes that need to be addressed through a more holistic and longer term approach.

The process of developing the strategy has been a consultative. Initially, a task force of technical representatives from key UN agencies and local and international NGOs was formed to work on a draft. A results based, action orientated approach was adopted, using the logical framework to identify and define the overall goal, outcomes, outputs and activities of the strategic plan. The outcomes identified reflect the priorities identified in the situational analysis and analysis of the strengths, weakness, opportunities and threats of current nutrition programming.

The draft prepared by the technical interagency task force was then shared with nutrition and other relevant clusters and sector working groups, and the UN County Team at Nairobi level. A key stage of the process was sharing the draft with Somaliland, Puntland and TFG authorities and local actors for their input and obtaining their endorsement. Thus the final document represents a consensus on the combined inputs of all relevant stakeholders.

# Acknowledgements

As outlined above, the process of developing this strategy has been a collaborative one between UN agencies, local and international NGOs, line ministries of Somaliland, Puntland and TFG authorities. We would like to acknowledge the contributions of staff from all these various agencies.

In particular, special thanks go to members of the technical Task Force for their experience, knowledge and time devoted to developing the strategy:

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# Acronyms

| | |
|---|---|
| AYCS | Accelerated Young Child Survival |
| BCC | Behaviour Change Communication |
| CAP | Consolidated Appeal Process |
| CBI | Community Based Initiatives |
| CHD | Child Health Day |
| CMAM | Community-based Management of Acute Malnutrition |
| CTC | Community-based Therapeutic Care |
| EPHS | Essential Package of Health Services |
| FAO | Food and Agriculture Organisation |
| FEWSNET | Famine Early Warning Systems Network |
| FSNAU | Food Security and Analysis Unit – Somalia |
| GAM | Global Acute Malnutrition |
| GAVI | Global Alliance for Vaccines and Immunisation |
| HAZ | Height for Age Z-score |
| HMIS | Health Management Information System |
| HSS | Health System Strengthening |
| IBFAN | International Baby Food Action Network |
| IDP | Internally Displaced Population |
| INGO | International Non Governmental Organisation |
| IYCF | Infant Young Child Feeding |
| KAPS | Knowledge, Attitudes and Practices Survey |
| LNGO | Local Non Governmental Organisation |
| MAM | Management of Acute Malnutrition |
| MCH | Maternal Child Health |
| MDG | Millennium Development Goals |
| MICS | Multi-Indicator Cluster Survey |
| MI | Micronutrient Initiatives |
| MoH | Ministry of Health |
| NEZ | North East Zone |
| NGO | Non Governmental Organisation |
| NWZ | North West Zone |
| OTP | Out patient Therapeutic feeding Programme |
| RDP | Reconstruction and Development Plan |
| SAM | Severe Acute Malnutrition |
| SC | Stabilisation Centre |
| SFP | Supplementary Feeding Programme |
| SCZ | South Central Zone |
| UNICEF | United Nations Children's Fund |
| UNTP | United Nations Transition Plan |
| WABA | World Alliance for Breast Feeding Action |
| WASH | Water and Sanitation Hygiene |
| WFP | World Food Programme |
| WHO | World Health Organisation |
| WHZ | Weight for Height Z-Score |

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# Executive Summary

Malnutrition in Somalia is a huge public health problem, negatively affecting growth, development and survival of the population. Situational analysis shows a long term nutrition crisis characterised by persistently high rates of acute and chronic malnutrition throughout the country with some variation by zone and livelihood system. This situation reflects nearly two decades of armed conflict and insecurity, with breakdown in social and public services coupled with recurrent droughts and flooding seriously affecting food security and livelihoods. In response to the alarming rates of acute malnutrition, nutrition programming coordinated by the Nutrition Cluster, has been primarily focussed on the immediate needs of saving lives through the management of acute malnutrition, based on seasonal assessments of food security and nutrition surveillance data primarily by FSNAU.

However, surveillance data shows that even in years of improved food production and relative stability, rates of acute and chronic malnutrition remain high in certain regions indicating other underlying causes play a significant role. Evidence shows that sub-optimal infant, young child and maternal feeding and care practices, low dietary diversity, poor hygiene, water and sanitation, high morbidity coupled with inadequate access to health care are key determinants of the problem. To address these multi-factorial and overlapping causes, a holistic package of interventions with multi-sector collaboration is required. This strategy has been developed via a consultative approach between UN agencies, local and international NGOs and the national and regional health authorities to provide an agreed upon framework for action to meet this need for a shift to a more holistic approach.

The results-based strategy provides a detailed action plan to guide prioritisation of interventions in face of limited resources, project implementation and resource mobilisation. Based on the situational analysis, review of best practices and proven effective interventions feasible in the challenging context of Somalia, the following goal and outcomes for the strategy have been established.

**Overall of the strategy is: To contribute to improved survival and development of Somali people through enhanced nutritional status.**

This will be accomplished through the achievement of the following outcomes:

**Outcome 1:** Improved access to and utilisation of quality services for the management of malnutrition in women and children
**Outcome 2:** Sustained availability of timely and quality nutrition information and operational research into effective responses to the causes of undernutrition
**Outcome 3:** Increased appropriate knowledge, attitudes and practices regarding infant, young child and maternal nutrition
**Outcome 4:** Improved availability and coverage of micronutrients and de-worming interventions to the population
**Outcome 5:** Improved mainstreaming of nutrition as a key component of health and other relevant sectors
**Outcome 6:** Improved capacity and means in country to deliver essential nutrition services

The outcomes will be achieved by conducting defined activities that will produce key outputs. Implementation of the strategy will be guided by the overarching principle of improving partnerships between all stakeholders – local and national authorities, donors, UN agencies, local and international NGOS, local community and the private sector – and increased collaboration

between sectors. While the main entry point will be through the strengthening of existing structures and services, the strategy also explores new avenues for the provision of services, for example, the fortification of cereal flours.

Due to constraints to rapid scale up of interventions (restrictions in access, logistic, human and financial resources) a phased approach has been adopted. Activities for the first year (phase 1) are focused on the adaption and standardisation of tools, training and strengthening of structures and mechanisms in preparation for delivery of interventions in the subsequent years (Phase 2). The strategy is consistent with the United Nations Transition Plan (UNTP) for Somalia 2008-09 and has been included in the Reconstruction and Development Plan (RDP) for the next three years.

The three year term of the strategy is too short to measure significant changes in nutritional status and mortality as outcome indicators. Instead, the results matrix gives details of the output and outcome (impact) and activity (process) indicators and their source of verification against which effectiveness of the strategy will be measured. The progress made in the implementation of the strategy will be reviewed and updated on an annual basis. The inter-agency review process will be led by the Ministries of Health in collaboration with technical support from the Health Sector Committee and undertaken with all stakeholders including regional line ministries. Annual review will be timed to take place prior to the Consolidated Appeal Process (CAP) so that findings can help inform and identify funding priorities.

# 1 BACKGROUND

Since the collapse of central government in 1991 and the resulting civil war, there have been many efforts to restore a central government in Somalia without sustained success. In 1991, the North west zone (NWZ) declared the independent state of Somaliland, with its governing administration in the capital Hargesia. The North east Zone (NEZ) declared itself as the autonomous region of Puntland in 1998. Although governed by its administration in its capital Garowe, it pledges to participate in any Somali reconciliation and reconstruction process that should occur. In South Central Somalia political conflict and violence continue to prevail, despite attempts to establish and support a central governing entity.

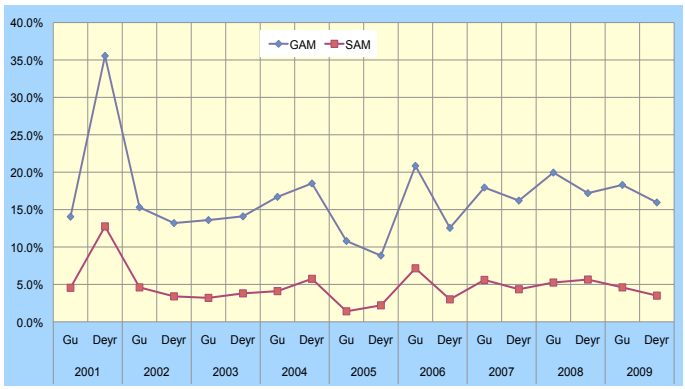
A detailed situational analysis of the nutrition situation in country, determinants of malnutrition and current nutrition interventions, strengths, weaknesses, opportunities and threats can be found in annex 2. In brief, eighteen years of war and insecurity have had devastating effects on the nutrition and health status of the people of Somalia, which was already precarious even before. The combination of conflict, insecurity, mass displacement, recurrent droughts and flooding and extreme poverty, coupled with very low basic social service coverage, has seriously affected food security and livelihoods and greatly increased vulnerability to disease and malnutrition. The MDG health-related indicators are among the worst in the world. Life expectancy is 45 years. One child in every twelve dies before the age of one year while one child in seven dies before the age of five.

## 1.1 Nutrition situation

Rates of acute malnutrition and chronic malnutrition are alarming throughout the country with some variations by zone and livelihood system. The most recent assessment from FSNAU Post *Deyr* '09/10 found a national median global acute malnutrition (WHZ < -2 SD) rate of 16%, severe acute malnutrition (WHZ < -3 SD) rate of 4.2%, based on WHO growth standards (2006). These rates correspond to an estimated 240,000[1] children acutely malnourished of which 63,000 children are suffering severe acute malnutrition. Thus one in six children aged 6 to 59 months are acutely malnourished and one in twenty two, severely malnourished. In addition, according to the previous FSNAU seasonal assessment post *Gu* 2009, 84,000 pregnant and lactating women are estimated to be acutely malnourished.

Preliminary results from FSNAU meta analysis of data from 2001 to 2009 highlight the chronic nature of this alarming situation. The results show that over this period, median rates of global acute malnutrition have remained at *Serious* (10 to <15%) or *Critical* (15 to <20%) levels (WHO Classification 2000) throughout (Figure 1), with a national median rate of 16%.

**Figure 1: Seasonal trends in national median rates acute malnutrition 2001-2009 - Source FSNAU**

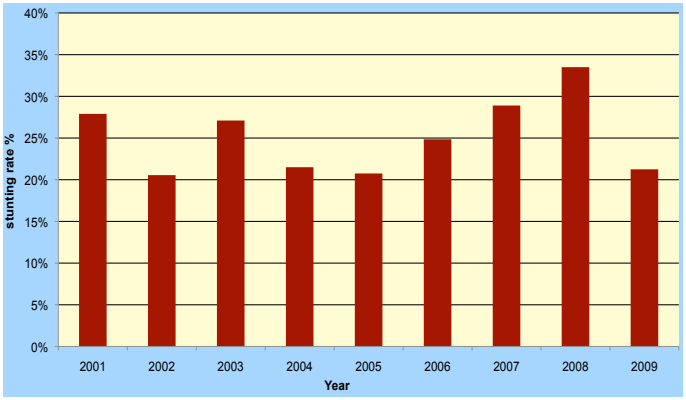



Furthermore, annual national median rates of stunting were above 20% ie at *serious* level throughout the period 2001 to 2009, according to WHO classification (2000), as shown in figure 2.

1 Figures based on population figures from the UNDP 2005 settlement survey are used as the standard reference for Somalia

Preliminary results of the meta-analysis also highlight how the situation has been consistently worse in South Central Somalia than Puntland or Somaliland. In South Central Somalia, median rates of stunting were found to be 29.7% and wasting 18%; this compares to 20% stunting and 17% wasting for Puntland and 18% stunting and 13% wasting for Somaliland (see figure 3). This reflects the devastating effect of chronic political conflict and insecurity in South Central Somalia in particular.

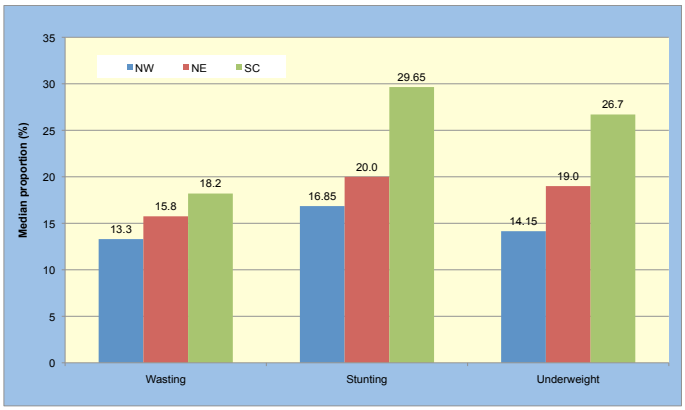
**Figure 2: Annual National Median Stunting rates 2001-2009**




Source: FSNAU 2010

Rates of malnutrition also vary according to livelihood system. Briefly, preliminary results of the FSNAU meta analysis of data 2001-2008 revealed that riverine and agro-pastoralist groups had the highest median rate of wasting, stunting and underweight suggesting a higher nutritional vulnerability to shocks – floods, drought, displacement, disease outbreak. Rates of malnutrition among the urban population tended to be lower, reflecting better access to a diversified diet and to public services including health.

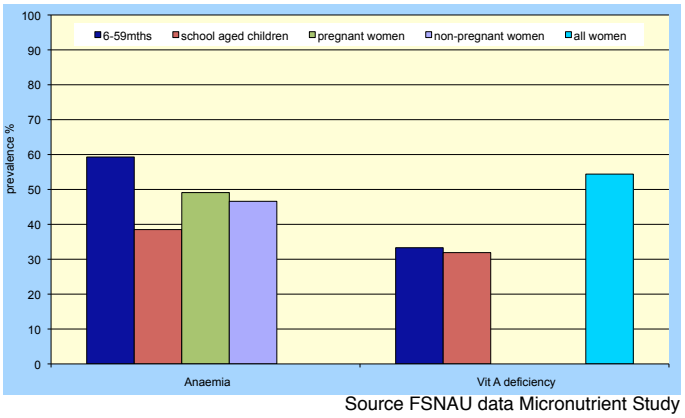
**Figure 3: Malnutrition rates by Zone in Somalia (2001-2008)**




Source FSNAU data

The recent National Micronutrient and Anthropometric Nutrition survey conducted between March and August 2009 in all three zones, has highlighted micronutrient malnutrition is a significant public health problem throughout Somalia. The prevalence of both nutritional anaemia and vitamin A deficiency among women and children of all age groups was found to be above WHO thresholds for classifying a severe situation in each of the 3 zones (see figure 4).

**Figure 4: Prevalence of anaemia and vitamin A deficiency amongst children and women**



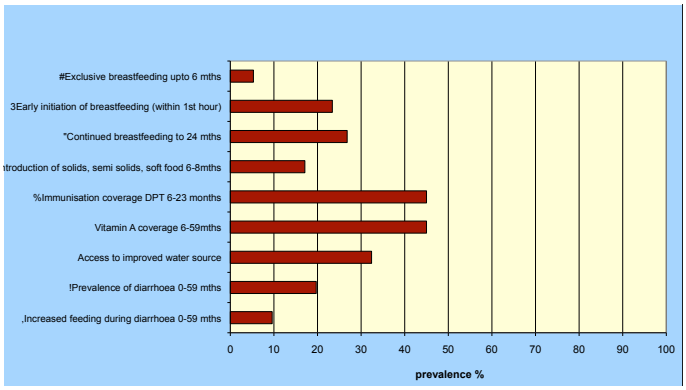

Source FSNAU data Micronutrient Study

## 1.2 Determinants of malnutrition

Malnutrition results from a complex set of factors and not one simple cause. The UNICEF conceptual model of causes of malnutrition (page 16) provides a useful framework for the discussion of the causes of malnutrition in Somalia. The volatile political situation and civil unrest have led to a chronic and continuing humanitarian crisis that is at the root of the high prevalence of malnutrition in Somalia. Somalia is also prone to drought and floods. Many of the environmental and man made shocks have been multiple and recurrent, over stretching families' coping mechanisms resulting in inadequate access to and availability of food at household level.

However, even in years of relative stability and improved food production, the malnutrition rates in some regions of Somalia have been consistently high, pointing to the important role of other underlying causes. These include sub optimal infant, young child and maternal feeding and care practises as documented by the National Micronutrient and Anthropometric Nutrition Survey 2009, KAPS 2007 and MICS 2006 results. Morbidity is high while access to and utilisation of quality health services is limited (KAPS 2007 and MICS 2006). The water and sanitation situation is poor. Feeding, care and hygiene practices are inadequate not only due to lack of public services but also due to cultural practices and beliefs. Figure 5 summarises data from the micronutrient survey indicating the low coverage of some of these key determinants. Each is discussed in more detail in the situational analysis attached (annex 2).

**Figure 5: Prevalence of indicators of some key determinants of malnutrition in Somalia**




Source: Micronutrient Survey2009

## 1.3 Nutrition interventions

Due to inadequate governance structures in parts of Somalia, nutrition response programming is mainly undertaken by UN, international and national NGOs. Nutrition interventions are primarily focussed on responding to alarming rates of acute malnutrition throughout the country. Food security and nutrition surveillance and early warning reports (FSNAU, FEWSNET, WFP) are key activities providing quality information and analysis for the targeting of appropriate and timely responses to changing needs in country. Outpatient therapeutic feeding programmes (OTPs) for the management of severe acute malnutrition are being implemented across Somalia by international NGOs and UNICEF in partnership with local NGOs, according to operational guidelines that take into account the challenging environment, reduced supervision and limited monitoring.

*Baidoa MCH, UNICEF Somalia, CK Minihane*

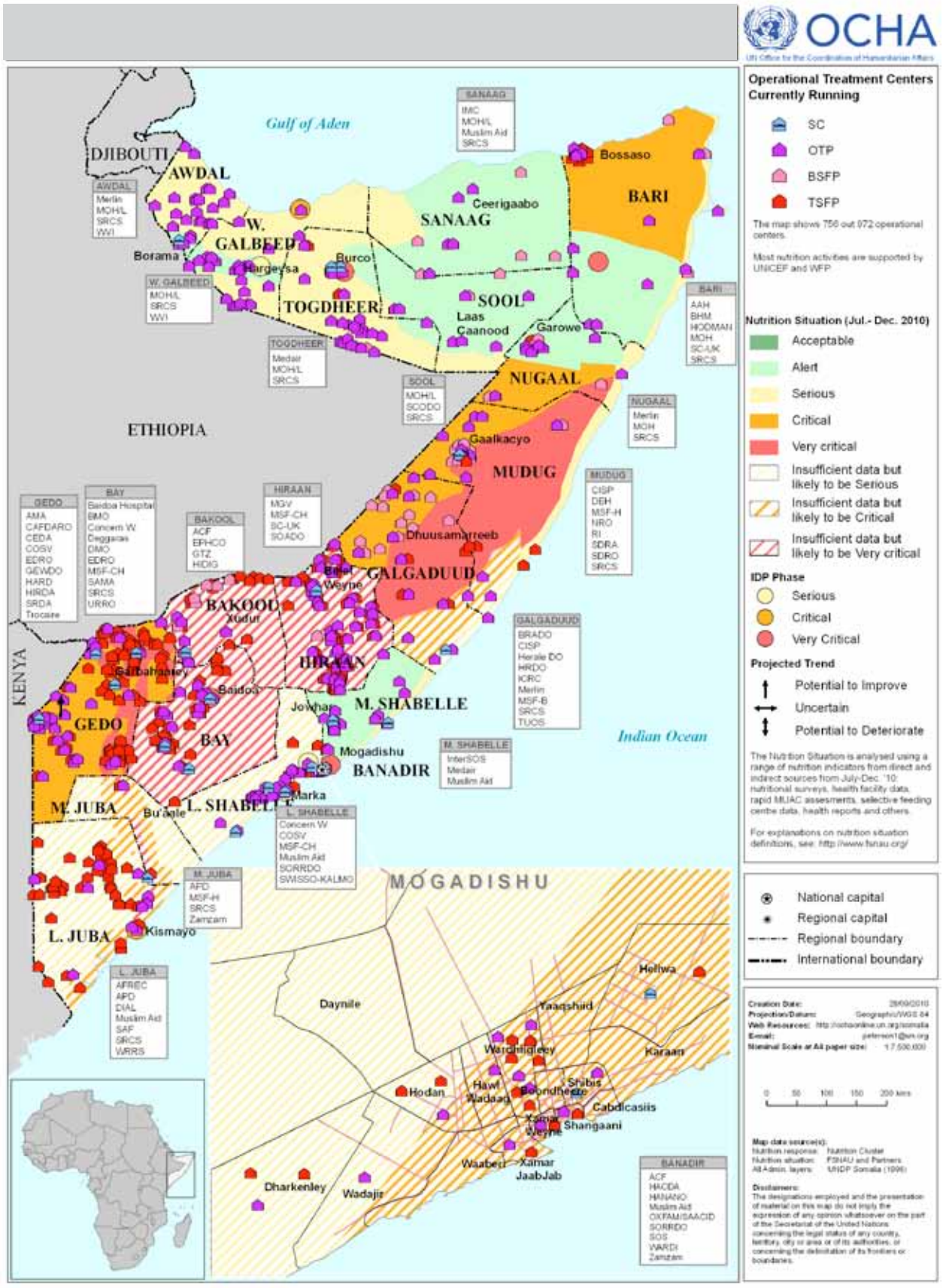
Targeted supplementary feeding programmes (SFPs) for the management of moderately malnourished under-fives and pregnant and lactating women are being implemented by WFP through around 40 local and international NGOs. The current caseload is around 70,000 beneficiaries, of whom approximately 80% are under-fives and 20% pregnant and lactating women. Map 1 shows the current nutrition situation and interventions based on latest reports.

Activities for the prevention of moderate acute malnutrition include the provision of fortified supplementary food by WFP to all children under-two and pregnant and lactating women, through UNICEF-supported MCH clinics at selected sites in Puntland and Somaliland. Currently 35 clinics are supported. In addition, in 2009, UNICEF launched a new initiative for the prevention of malnutrition, targeting 100,000 children aged 6-36 months with blanket distribution of ready-to-use food (Plumpy Doz) every two months in areas showing the highest malnutrition rates.

Furthermore WFP is providing food assistance to vulnerable groups through institutional feeding and school feeding to around 90,000 beneficiaries. WFP also provides a general food ration consisting of cereals, CSB, sugar, fortified oil and iodised salt when available, to the rural population affected by the humanitarian crisis, the urban poor and IDPs. In 2009 this food assistance covered around 3 to 3.5 million people a month – almost half the population – on the basis of FSNAU seasonal assessments.

Nutrition interventions delivered through health campaigns include vitamin A distribution, deworming and nutritional screening during bi annual Child Health Days. Furthermore, nutrition interventions are delivered through the 3 levels of the health system – health posts, MCH Clinics and hospitals. Coverage and quality is currently limited due to overall weaknesses of the public health system.

**Map 1: Somalia - Nutrition Treatment Interventions in Somalia as of November 2010**



# 2 JUSTIFICATION, SCOPE & GUIDING PRINCIPLES

## 2.1 Justification

As described above, Somalia faces multiple challenges - not least conflict, drought, flooding, inadequate and inequitable social and public services and massive population displacement - but persistently high levels of malnutrition are undermining the survival, growth and development of the population. Rates of acute and chronic malnutrition have consistently exceeded emergency thresholds in some areas for more than 10 years now. Due to the scale of the humanitarian situation in Somalia and the alarmingly high rates of acute malnutrition, the vast majority of the nutrition interventions are focussed on the management of acute malnutrition. This remains a key priority to prevent associated excess morbidity and mortality.

However, the situational analysis shows that in some regions rates of chronic and acute malnutrition remain high even outside of times of crisis, with multi factorial underlying causes. These underlying causes include: sub optimal infant, young child and maternal feeding and care practices, poor dietary diversity, inadequate water and sanitation and high morbidity coupled with poor access to and utilisation of health services. These multiple and overlapping determinants of malnutrition in Somalia require a holistic package of interventions delivered through a multi sectoral channels to address the huge public health problem. The range of stakeholders and the variety of approaches and projects with a nutrition goal or outcome mean a coordinated approach is necessary. The response also requires longer term planning, funding and programming. This strategy therefore has been developed to provide an agreed upon framework for action to respond to this need for a shift in approach, whilst continuing to improve the quality of management of acute malnutrition.

## 2.2 Scope

This strategy provides a tool to support co-ordinated action to improve and expand quality nutrition programming in Somalia in a phased approach over the next three years. It is based on a logical framework and is therefore rooted in actions that if conducted produce results that ultimately mean outcomes are accomplished and the overall development goal is achieved. It is intended as an advocacy document for UN agencies and partners to donors. The results-based approach provides an action plan which guides the prioritisation of interventions in a situation of limited resources, project implementation and capacity building in the relevant areas, and resource mobilisation. It identifies opportunities and existing structures that provide entry points for developing and integrating interventions. It aims to encourage the development of partnerships between all relevant stakeholders and facilitate cross sector initiatives to address the multi-factorial direct and underlying causes of malnutrition, whilst recognising the challenges of implementation in Somalia

As malnutrition is one of the most important constraints to achieving MDGs, these coordinated efforts will assist Somalia in making more meaningful progress towards attaining its MDGs. In particular, those more directly affected by improving malnutrition: goal 1 on reducing hunger, and goals 4 and 5 on the reduction of child and maternal mortality (see Annex 6).

## 2.3 Guiding Principles

This implementation of this strategy will be guided by the following principles:

- Recognition of the basic human right to adequate food and health, for all people to have access to safe and nutritious diets to be free from malnutrition and related disorders.

- Recognition of the multiple and overlapping causes of malnutrition that require a longer term, inter-sectoral strategy and that reflect an understanding of the political, economic, social and cultural factors that determine nutritional status

- Recognition of the need to build local capacity and resources to respond and promote local ownership

- Recognition of the context of the specific situation in Somalia where access is limited, using existing services and structures as entry points for enhanced interventions.

- Recognition that the critical window of opportunity for reducing undernutrition and its adverse effects is the period from pregnancy to 24 months of age (Lancet series on Maternal and Child undernutrition). Interventions after 24 months are much less likely to improve nutritional status and do not reverse earlier damage.

- Reflection of universally accepted best practice and evidence based interventions. The Lancet series on Maternal and Child undernutrition provides evidence on interventions that are proven effective in addressing malnutrition (see annex 4). Not all are feasible in the challenging context of Somalia, requiring a less volatile environment, better access, a stronger public health system, legislative framework and longer term funding. The strategy prioritises what is proven effective with what is feasible and can be adapted to the Somali context. It is also important to note that many of the interventions identified in this strategy correspond to those acknowledged by the Copenhagen Consensus 2008 as the most cost effective interventions for global development (see Annex 5)

- Recognition of the principle of 'Do no harm'. Respecting this, implementation of strategy should not exacerbate or worsen the situation.

# 3 GOAL, OUTCOMES & OUTPUTS

The goal, outcomes, outputs and activities of the strategy have been identified using a logical framework approach. They are based on the priorities, strengths, weaknesses, opportunities and threats identified in the situational analysis and reflect proven effective interventions that are feasible in the challenging context of Somalia. Justification of each outcome and the key approaches adopted are described in annex 6.

## *The overall development goal of this strategy is to contribute to improved survival and development of Somali people through enhanced nutritional status*

This contribution will be achieved through the accomplishment of the following outcomes (expected benefits to the population) which in turn will be realised by the achievement of the specified outputs through conducting the defined activities.

### Outcome 1: Improved access to and utilisation of quality services for the management of malnutrition in malnourished women and children

**Outputs:**

1.1 Quality services for the management of acute malnutrition are enhanced and expanded

1.2 Quality services for the treatment of micronutrient deficiencies are enhanced and expanded

1.3 Food based interventions for the prevention of undernutrition in identified high risk populations are enhanced and expanded

1.4 Utilisation of available services for the prevention and treatment of acute and chronic malnutrition is increased

*Child receives 'Plumpynut' from father, Concern Worldwide*

### Outcome 2: Sustained availability of timely and quality nutrition information and operational research into effective responses to address the causes of undernutrition

**Outputs:**

2.1 Quality nutritional surveillance, monitoring and evaluation is conducted and reviewed on a timely basis to inform the targeting of vulnerable populations with appropriate responses

2.2 Operational research to identify effective programmes to address the causes of undernutrition is conducted, according to an agreed upon set of priorities and plan of action, and is used as evidence base for long term strategic planning.

*Measuring height during a nutrition survey, FSNAU*

## Outcome 3: Increased appropriate knowledge, attitudes and practices regarding infant, young child and maternal nutrition

**Outputs:**

3.1 Improved rates of early initiation and exclusive breastfeeding practices

3.2 Improved rates of optimal complementary feeding practices

3.3 Local availability and consumption patterns of nutrient dense foods are better understood and this knowledge-base is used to promote increased intake of energy, protein and micronutrient-rich foods

3.4 Common practices that inhibit micronutrient absorption e.g. tea consumption are better understood and addressed

3.5 Improved access to nutrition education and counselling for pregnant and lactating women through health services and community based structures

*Mother breastfeeding child at Baidoa MCH, UNICEF Somalia, CK Minihane*

## Outcome 4: Improved availability and coverage of micronutrients and de-worming interventions to the population

**Outputs:**

4.1 Increased availability of fortified food

4.2 Improved access to and utilisation of micronutrient supplements and fortified supplementary food by vulnerable groups through health services and novel community based delivery strategies

4.3 Increased coverage of de-worming through population-based delivery mechanisms: a) Child Health Days, b) schools, c) MCH services and d) nutrition programmes

*Child receives Vitamin A supplementation at CHD in Hargeisa, UNICEF Somalia, Denise Shepherd Johnson*

## Outcome 5: Improved mainstreaming of nutrition as a key component of health and other relevant sectors

**Outputs:**

5.1 Nutrition is effectively incorporated into the policies, strategies, activities, delivery mechanisms and outcomes of health sector

5.2 Nutrition is integrated into the policies, strategies, activities, delivery mechanisms and outcomes of relevant sectors (WASH, agriculture/livelihoods, education, food aid)

*Promotion of handwashing, DHK Mogadishu, SAACID/WFP*

## Outcome 6: Improved capacity and means in country to deliver essential nutrition services

**Outputs:**

6.1 A two year nutrition sector capacity development strategy and plan of action is developed by the end of 2011

6.2 Capacity development strategy and training activities are implemented according to plan of action

6.3 Regional training and mentoring cells are formed by the end of 2011.

6.4 Internationally recognised training guidelines and protocols are adapted to the Somali context

6.5 An enabling environment for all stakeholders to implement quality nutrition programmes is created and sustained, in collaboration with local authorities

*Nutrition training, Save the Children in Somalia/ Somaliland*

# 4 IMPLEMENTATION

The logical framework defining goal, outcomes, outputs and activities and associated indicators for monitoring progress is included in annex 1. In addition, a results-based matrix detailing the activities, responsible agencies and time frame for action will be developed. Due to constraints to rapid scale up of interventions (restrictions in access, logistic, human and financial resources) a **phased approach** to implementation is proposed. Activities for the first year (phase 1) will be focused on the adaption and standardisation of tools, training and strengthening of structures and mechanisms in preparation for delivery of interventions in Phase 2. In this way, achievements of the first year will build the foundation for subsequent years. In view of the different context and challenges of the three zones, implementation of proposed activities will also be phased by geographical location, depending on access, capacity and resources available.

## 4.1 Opportunities

Restricted access, poor infrastructure and limited means in the face of huge needs means innovative ways of intervening in Somalia are called for. Opportunities arise from existing structures, pilots and programmes which provide entry points for strengthening, scaling up and delivering complementary essential activities. These opportunity areas are summarised below with more detail found in Table 2 of the situational analysis.

*OTP nurse explaining healthy messages to OTP attendants, Baadbuke OTP site Save the Children*

- The strength and funding of existing nutrition programmes which provide existing structures through which to deliver essential complementary services (deworming, immunisation, promotion of good hygiene) thereby maximising the potential benefit of nutritional input
- Existing and upcoming interventions and programmes through which quality nutrition activities can be delivered • Accelerated Young Child Survival (AYCS) initiative Child Health Days, GAVI Health System Strengthening (HSS) funded Female Community-based Health Workers & Behaviour Change Communication (BCC) strategy
- Pilot of new interventions with possibilities for scale up – FAO Trials of Improved Practices, Plumpy doz for prevention of moderate malnutrition
- Globally accepted guidelines and proven effective interventions that can be adapted to the Somali context
- WHO community based initiatives (CBI) like Basic Development Needs (BDN) and Healthy City Initiatives – community structures already in place as the basis for community based interventions.
- Mosques and schools provide existing community structures for innovative delivery of population based interventions such as deworming, micronutrient supplementation and nutrition education.

## 4.2 Partnerships

Implementation of the strategy will be through partnership-based action, with the national and local authorities (Ministry of Health and other line ministries), with the local community, local NGOs and civil society, with the international community and with the private sector.

**a) National and local government**

Throughout the three zones, but more so in Somaliland and Puntland, government structures are in place and evolving. Governments have the responsibility to provide policy direction and leadership, promote inter-ministerial collaboration and advocate with religious and cultural institutions in priority areas. However, capacity is currently inadequate. In response to this, a key output of this strategy is to support the improvement of local capacity and structures within the ministries, in particular technical and financial support for the nutrition sector. Furthermore, this strategy should be included in the respective governments' plans and priorities for next 3 years.

**b) The Community**

In areas where continuing insecurity and lack of access for international staff persists, implementation through local authorities, local NGOs and community based workers will be key delivery mechanisms. In line with Essential Package of Health Services, UNICEF/WHO's Accelerated Young Child Survival initiative, the Reproductive Health strategy and GAVI HSS funds, the development of the role of the community health worker is essential for community mobilisation, individual support and promotion of good nutrition, hygiene and health practices.

Furthermore the system of female community-based health workers proposed through GAVI HSS fund will allow expansion of community activities: the promotion of vitamin A for children and post-partum women, prevention and control of diarrhoea, promotion of early initiation and exclusive breastfeeding and appropriate complementary feeding practices for infants and young children, promotion of good nutrition for all the family in particular women, assessment of nutritional status and referral of malnourished children.

Schools, religious and cultural institutions provide important structures within the community through which to deliver population based interventions such as deworming, early identification and referral of acute malnutrition and nutrition education.

**c) Local Non Governmental Organisations (NGOs)** are very important partners in the delivery of interventions where access to the international community is restricted and government structures are weak. Again, capacity is often a limiting factor and is one of the priority areas to be addressed, in line with national and regional as well as UN national capacity development strategies. The development of regional training and mentoring cells will be an important initiative in improving capacity and the quality of nutrition programmes implemented by these local partners.

**d) International community**

***Donors*** Over recent years, work by FSNAU has achieved a tremendous amount in highlighting the devastating nutrition situation in country and as a consequence, donor funding of emergency programmes has been good. The challenge is to keep nutrition as a priority for donors, UN, NGOs and the ministries and advocate for a longer term strategy in Somalia to address not only the critical acute malnutrition situation but also the underlying causes, if reduced mortality and optimal growth and development are to be addressed.

***United Nations (UN)*** This strategy will build on the already strong collaboration between United Nations (UN) agencies such as UNICEF, FAO/FSNAU, WFP, UNFPA and WHO working to improve maternal and child nutrition and health in Somalia. One key area of collaboration is around strengthening mechanisms to ensure a minimum package of essential services is delivered

alongside nutrition programmes in a timely manner.

Under UN humanitarian reform, the cluster approach has been developed to strengthen coordination and give predictability and accountability to the humanitarian response. There are currently nine cluster sectors for Somalia: health, WASH, food aid, agriculture and livelihoods, education, nutrition, protection, logistics and shelter and currently inter cluster working group coordination meetings are held. This strategy places great importance on improving inter cluster and inter working group collaboration for a multi-sector approach to addressing the cross cutting factors that determine nutritional status, growth and development in Somalia.

***International Non-Governmental Organizations (NGOs)*** Although access may be restricted, International NGOs continue to be important partners providing additional technical capacity and skills in nutrition and new innovations in programme delivery.

***Academic, Research and Global Advocacy Institutions:*** A new area to be explored is to access expertise from internationally recognized organizations and improve linkages with local organisations and institutions. Some of these institutions may include: Tufts University, World Alliance for Breastfeeding Action (WABA), International Baby Food Action Network (IBFAN), Micronutrient Initiatives (MI). Links to academic institutions can open up options for the organisation of specific nutrition trainings in the region and distance learning courses.

**c) The Private Sector**

The private sector in Somalia has an important potential contribution to make towards improving the nutrition situation in country. One of the key areas to engage with the private sector on is the control of the marketing and promotion of breast milk substitutes, possibly looking at supporting the private sector to promote appropriate complementary foods to prevent malnutrition in place of infant formula. Advocacy and sensitisation of the private sector on the International Code on marketing of breast milk substitutes is an important first step towards a longer term consultative process on its adoption. The private sector also has a key role to be explored in the potential for importing fortified foods, in particular cereal flours. In addition, there are opportunities for developing private public partnerships in the social marketing of micronutrient supplements as has been successfully applied to low cost water purification tablets and long lasting insecticide treated bed nets in Somaliland.

## 4.3 Zonal differences

The overall goal and outcomes are the same for Somaliland, Puntland and South Central Somalia but the situational analysis provides evidence of the need for a different approach to implementation in the different zones. Coverage of services for the management of acute malnutrition has improved considerably in the last few years. Maintaining these achievements and striving for improved quality of services is particularly important in South Central Somalia where rates of acute malnutrition were found to be the highest of all zones in the recent Post *deyr* 09/10 seasonal assessment (median GAM 19%, median SAM 4.4%) and 81% of acutely malnourished live. Yet here is where structure and systems through which to implement are more limited and humanitarian space to intervene is most restricted. To overcome these challenges, there is a need to concentrate on implementing through local NGOs and community-based initiatives as government structures emerge and evolve. Until the situation becomes more secure, programmes must be managed by remote control and innovative mechanisms for delivery of interventions developed. Many of the important public health initiatives proposed in the action plan may need to be started on a smaller local basis, to be scaled up as the political and security situation allows.

In Somaliland and to a lesser extent Puntland, more or less stable government institutions have been formed providing greater opportunities for partnerships. However as yet, capacity, coordination and policy or regulatory framework is limited. The relative peace and stability allows greater access for intervention, monitoring and supervision. In the north, support needs to focus on the increasing numbers of IDPs who, despite some improvement in acute malnutrition rates between Post *Gu* 09 and Post *Deyr* 09/10 seasonal assessments (median GAM down from 20% to 16.7%, median SAM down from 4.8% to 4.2%) remain one of the most nutritionally vulnerable group of all livelihoods, with the highest median stunting rate of 25%.

## 4.4 Operational research

Although extensive information is gathered through FSNAU, FEWSNET, WFP food security and vulnerability assessments, gaps remain in knowledge of many areas including:

- local availability of nutrient dense foods, of food habits, taboos and other factors that influence consumption of nutrient dense foods,
- enabling factors and barriers to optimal breast feeding, young child and maternal feeding practices,
- economic and cultural dynamics of breast milk substitutes,
- opportunities for engagement with private sector in areas of breast milk substitutes and food fortification,
- innovative population based delivery mechanisms for micronutrient supplementation, deworming, nutrition education and behaviour change communication.

In each of these areas, operational research has been identified as a key activity by which to inform and guide appropriate intervention and links with achieving output 2.2.

## 4.5 Technical support

There will be a need to commission consultants with particular expertise in certain areas including economics, food fortification, infant and young child feeding, to provide clearer understanding of current situation, identify potential for future interventions and formulate action plans.

## 4.6 Behaviour Change Communication

Many of the output results require attitude and behaviour change on an individual and community basis (early initiation of and exclusive breastfeeding for 6 months, optimal complementary feeding practices, food safety, increased dietary diversity, hygiene practices, demand for micronutrient supplementation and reduction of practices inhibiting micronutrient absorption, appropriate health and nutrition seeking behaviours). There is often overlap with priorities of other sectors eg promotion of food safety goes hand in hand with good hygiene practices. In response, a comprehensive and integrated behaviour change communication strategy approach is needed with the development of key simple messages and the identification of delivery channels that are appropriate and effective in the Somali context. Messages should be communicated through more than one channel for maximum effect: on an individual basis through interpersonal counselling by community health workers and breast feeding counsellors, and mobilising communities through mosques, schools and local institutions and mass media campaigns.

*Breastfeeding Counselling, IDPs, Hargeisa, UNICEF Somalia, Iman Morooka*

# 5 MONITORING

This strategy covers a 3 year period. The overall goal is to contribute to improved survival and development of Somali people through enhanced nutritional status. Trends in under-five and infant mortality rates and nutritional status indicators will be monitored through MICS and FSNAU nutrition surveillance data. However, because three years is too short a period in which to see significant changes these will not be used as the main indicators of the extent to which objectives have been achieved.

The results matrix gives details of the output and outcome (impact) and activity (process) indicators and their source of verification against which effectiveness of the strategy will be measured. The main sources of verification include: FSNAU surveillance data which provides valuable, quality information on a range of indicators; MICS, which was last conducted in 2006 although there were technical issues with the quality of nutrition data in particular, and is planned for 2011 and repeated after 3 years; implementing partner reports and the Health Information System, which has been of low quality and irregular but for which there are ongoing efforts to improve quality through simplification of reporting forms, training, analysis and regular feedback. FSNAU KAPS 2007 and the National Micronutrient and Anthropometric Nutrition Survey 2009 have provided valuable baseline information on a number of key indicators. To facilitate the coordination and monitoring activities of the strategy implementation, responsibility of specific agencies for each activity will be defined.

The strategy will be reviewed and updated on a regular basis not least because the security and access situations can change substantially in Somalia thereby affecting feasibility of implementation. The inter-agency review process of progress on implementation will be led by the Ministries of Health in collaboration with technical support of the Health Sector Committee and undertaken with the involvement of all stakeholders. Line ministries will have a key input into the review process, while the agency focus will depend on the specific activities under review. The annual review will be timed to occur prior to the CAP so findings can inform and identity funding priorities for CAP. Reports on progress will be disseminated to donors, national and implementation partners on an annual basis. A full review of progress made in the implementation of the strategy will be undertaken after the first year (phase 1) and again after the subsequent two years.

# ANNEXES

ANNEX 1

# LOGICAL FRAMEWORK

| Project description | Indicators | Source of verification | Assumptions |
|---|---|---|---|
| Goal:<br>To contribute to improved survival and development of Somali people through enhanced nutritional status | | | |
| Outcome 1:<br>Improved access to and utilisation of quality services for the management of malnutrition in women and children | 1a 75% acutely malnourished children and pregnant and lactating women have access to and utilise quality services for management of acute malnutrition<br><br>1b Number of health facilities providing services for the treatment of micronutrient deficiencies with standardised protocols, trained staff, adequate and timely supplies<br><br>1c 50% identified high risk populations have access to and use nutrient dense supplementary food to prevent undernutrition | Nutrition programme performance indicators database<br><br>FSNAU surveillance data<br>Coverage surveys (limited)<br><br>HMIS, MoH records, facility based survey (GAVI HSS) | Access to functioning health services<br><br>Access to food security<br><br>Access to healthy environment<br><br>Authorities, line ministries, armed groups are supportive and provide necessary conditions for implementation |
| Outputs:<br>1.1 Quality services for the management of acute malnutrition are enhanced and expanded | 1.1a 70% of targets set for enhancement & expansion of operational SCs, OTPs & SFPs based on bi annual situational analysis, are met<br>1.1b 70% of partners operating with performance indicators that meet SPHERE standards | Implementing agencies' reports<br><br>Implementing agencies' reports<br>UNICEF database | Pipeline funded & implemented<br>Security allows access for implementing agencies to operate<br>Security allows access for beneficiaries<br>Beneficiaries willing and able to seek care |
| 1.2 Quality services for the treatment of micronutrient deficiencies are enhanced and expanded | 1.2 Number of health facilities providing services for the treatment of micronutrient deficiencies with | HMIS, MoH records<br>Facility based survey (GAVI HSS 40 MCH | Functioning health facilities |

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| | standardised protocols, trained staff, adequate and timely supplies in relation to need | centres + 80 Health posts)<br>Health care providers training database[1] | |
| 1.3 Food based interventions for the prevention of undernutrition in identified high risk populations are enhanced and expanded, through the health services and community-based structures | 1.3 50% registered/eligible children in selected intervention areas receive nutrient dense supplementary food | Implementing agencies programme reports | Security situation allows access for implementing agencies and beneficiaries |
| 1.4 Utilisation of available services for the prevention and treatment of acute and chronic malnutrition is increased | 1.4 % registered/eligible children using available services increases by x% | Implementing agencies' reports | Security situation allows access for implementing agencies and recipients |
| Activities: | | | |
| 1.1.1 Based on bi annual review of nutrition situation, assess needs, set targets and establish new services for enhancement & expansion of operational SCs, OTPs & SFPs | 1.1.1 i) Needs assessed and targets set every six months, ii) New services are in place and operational | Meeting reports of review and targets set<br>Implementing agencies reports | Security situation allows access for surveillance, implementation and utilisation of services |
| 1.1.2 Provide supplies and technical support on a timely basis | 1.1.2 number of days stock outs<br>1.1.2b SPHERE standards for programme quality are met by 70% partners | HMIS, UNICEF & WFP supply data<br>UNICEF database | Adequate human, financial and material resources available<br>Efficient logistics system for timely delivery of adequate supplies |
| 1.1.3 Develop and implement MAM guidelines specific to Somali context, including special attention to nomadic communities | 1.1.3 guidelines are developed and actively adopted by 80% of partners | Published guidelines, implementing partners reports | New guidelines accepted and adopted by partners |
| 1.1.4 Conduct community mobilisation with dedicated staff and resources to increase coverage & early diagnosis | 1.1.4 a) number of community mobilisation campaigns conducted b) proportion of complicated to uncomplicated SAM cases[2] | Implementing partners reports | Target population open to messages |
| 1.1.5 Standard nutrition programme performance indicators are reported monthly | 1.1.5 80% implementing agencies reporting monthly | UNICEF database | Reports are reliable |

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| 1.1.6 | Advocate to ensure delivery of basic essential health services (immunisation, de-worming etc) through nutrition programmes | 1.1.6 | Advocacy is carried out | Documentation | Health sector receptive, adequate supplies and logistic system available |
| 1.2.1 | Review micronutrient survey results and HMIS data where available and set targets for enhancement of MND treatment services | 1.2.1 | Survey results and HMIS data reviewed and targets sets | Documentation | Results are reliable |
| 1.2.2 | Develop & implement simple Somali specific standardised protocols for the treatment of micronutrient deficiencies, with regional roll out | 1.2.2 | a) Standardised protocols developed by end of phase 1<br>b) increasing trends in x% health facilities implementing treatment protocols across the regions[3] | Documentation<br>HMIS<br>Facility survey | |
| 1.2.3 | Develop and implement simple standardised protocol for therapeutic zinc supplementation in the management of diarrhoea | 1.2.3 | a) Standardised protocols developed by end of phase 1<br>b) 80% children attending MCH experiencing diarrhoea who receive therapeutic zinc supplementation by end phase 2 | Documentation<br>HMIS | |
| 1.2.4 | Provide and manage supplies and provide technical support on a timely basis | 1.2.4 | Number of days of stock outs of micronutrient treatments | HMIS supply data | Sufficient supplies and efficient logistical support available |
| 1.2.5 | Plan and implement in-service training of health facility staff at all levels on diagnosis and treatment protocols | 1.2.5 | a) Number of health facilities with staff trained and active in treatment of micronutrient deficiencies | New database on health personnel & training received | Health facility staff motivated |
| 1.2.6 | Conduct community mobilisation campaigns on MND | 1.2.6 | Number of campaigns conducted | Activity reports | Community receptive<br>Data and review are reliable |
| 1.3.1 | Assess needs and identify vulnerable populations through bi annual review of quality nutrition and food security seasonal assessments | 1.2.1 | Bi annual review conducted and target populations identified | Reports of review and targets identified | |
| 1.3.2 | Based on above, establish new nutrition services for prevention of undernutrition, | 1.2.2 | Food-based interventions to prevent undernutrition are | Implementing agencies reports | Supplementary foods are acceptable to and used |

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| | (including lipid-based nutrient supplements-LNS) in identified high risk populations | | established in identified high risk areas | | appropriately by target groups |
| 1.3.3 | Conduct training of health workers and implementing partners on new services, including counselling on continued breastfeeding and food hygiene practices | 1.2.3 | Number of health workers and implementing staff trained | Training reports, health worker training database, partner reports | Health workers and programme staff are motivated |
| 1.3.4 | Provide and manage supplies and provide technical support to implementing partners on a timely basis | 1.2.4 | Number of days of stock outs | Supply data | Sufficient supplies and efficient logistics system in place |
| 1.3.5 | Conduct community sensitisation to maximise acceptability and appropriate use of food based interventions | 1.2.5 | Number of community sensitisation campaigns conducted | Activity reports | Community is receptive |
| 1.3.6 | Assess and review continuation of food based interventions, based on nutrition surveillance data and bi annual seasonal assessments | 1.2.6 | Bi annual reviews conducted | Review reports | Surveillance data is reliable |
| 1.4.1 | Conduct community awareness and mobilisation campaigns to increase awareness and understanding of available services | 1.4.1 | number of community campaigns conducted | Activity reports | Community is receptive |

**Outcome 2**

| Project description | Indicators | Source of verification | Assumptions |
|---|---|---|---|
| Outcome 2:<br>Sustained availability of timely and quality nutrition information and operational research into effective responses to address the causes of undernutrition | Number of information users (government, institutions, civil society, Diaspora, INGOs, UN agencies, donors, others) receiving nutrition information to increase by 40% after 3 years<br><br>Number of information users based in Somalia receiving nutrition information to increase by 40% after 3 years<br><br>Evidence of FSNAU analysis being primary informant to humanitarian appeal and response process and evidence of changes in the response and process(CAP/HRF/CERF)<br><br>Evidence of nutrition analysis informing the Reconstruction & Development Plan (RDP), United Nations Transition Plan (UNTP), Agriculture Sector Strategic Framework (ASSF), and Country Strategy Paper (CSP) and evidence of changes in the design and monitoring of these initiatives<br><br>Evidence of nutrition analysis informing the Somalia Support Secretariat (SSS) | Somalia nutrition information agency website hits (FSNAU, UNICEF, WHO, OCHA), mailing lists, meeting participation, nutrition unit of MoHs<br><br>CAP, CERF, HRF reports<br><br>RDP document<br><br>Cluster meeting | Partners and donors receptive to nutrition information<br><br>Nutrition information is interpreted appropriately to inform decisions regarding feasible responses<br><br>Security situation allows access to respond to nutrition information available<br><br>Authorities, line ministries, armed groups are supportive and provide necessary conditions to respond |

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| | sector working groups and the IASC Cluster action plans and evidence of decisions influenced by this analysis<br><br>Nutrition analysis and information contributing to 50% of the sector studies and strategic planning undertaken by Somali government, donors, UN agencies, INGOs | minutes<br><br>Strategic planning reports | |
| Outputs:<br>2.1 Quality nutritional surveillance, monitoring and evaluation is conducted and reviewed on a timely basis to inform the targeting of vulnerable populations with appropriate responses<br><br>2.2 Operational research to identify effective programmes to address the causes of undernutrition is conducted, according to an agreed upon set of priorities and plan of action, and is used as evidence base for long term strategic planning | 2.1a 100% surveys are validated using plausibility checks.<br>2.1b >90% of surveys meet the criteria of quality for publishing results<br>2.1b Results of biannual nutrition assessments are released and reviewed in January (post *Deyr*) and August (post *Gu*) of each year<br><br>2.2 x% research projects undertaken according to defined plan of action[4] | FSNAU technical series reports<br><br>Documentation of FSNAU seasonal assessment release dates<br><br>Documentation of number of research reports produced | Data collection is reliable |
| Activities<br>2.1.1 Conduct regular inter-agency nutrition surveys throughout livelihood zones according to agreed upon schedule and inter-sectoral information requirements. | 2.1.1a >90% planned nutrition surveys conducted<br>2.1.1b Partners involved in 100% of the surveys for ownership<br>2.1.1c 100% pre-agreed inter-sectoral | FSNAU technical series reports, Bi monthly Nutrition Updates | Security situation allows access<br><br>Sufficient financial, human resources and material |

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|---|---|---|---|
| | information requirements (WASH, Health, Malaria, Food Security) addressed | | resources available<br><br>Implementing partners, authorities, line ministries, armed groups are supportive and provide necessary conditions to conduct surveys & research |
| 2.1.2 Analyse survey results and interpret in context of other relevant surveillance data (MCH data, availability of nutrition programmes, access to health services, disease outbreaks, water and sanitation, food security information) | 2.1.2 100% published survey reports include contextual analysis | | |
| 2.1.3 Undertake biannual mapping of nutrition situation by livelihood zone, according to IPC classification | 2.1.3 Maps produced on a biannual basis | Maps produced<br><br>Reports produced | |
| 2.1.4 Produce regular nutrition updates and reports including: Quarterly Food security and nutrition brief, Biannual Food Security and Nutrition brief, bi annual technical series reports. | 2.1.4 Nutrition reports produced according to defined schedule | Published reports | |
| 2.2.1 Priority areas for operational research into underlying causes of undernutrition identified and plan of action devised to include activities 3.1.1, 3.2.1, 3.3.1, 3.4.1, 3.5.3, 4.2.6, 4.2.8 | 2.2.1 List of priorities areas and plan of action identified | | |
| 2.2.2 Conduct operational research according to plan of action | 2.2.2 Research is conducted | | |
| 2.2.3 Produce research reports, disseminate and use findings to inform appropriate nutrition responses | 2.2.3 Research reports published and disseminated | | |

**Outcome 3**

| Project description | Indicators | Source of verification | Assumptions |
|---|---|---|---|
| Outcome 3:<br>Increased appropriate knowledge, attitudes and practices regarding infant, young child and maternal nutrition | 50% increase in appropriate knowledge, attitudes and practices regarding infant, young child and maternal nutrition | KAP study<br>MICS | Access to functioning health services<br><br>Access to food security<br><br>Access to healthy environment |
| Outputs:<br>3.1 Improved rates of early initiation and exclusive breastfeeding practices | 3.1 Rates of early initiation and exclusive breastfeeding double from baseline (5%)[5] | MICS, Micronutrient survey | |
| 3.2 Improved rates of optimal complementary feeding practices | 3.2 Rates of optimal complementary feeding practices – age at introduction, dietary diversity, meal frequency – double from baseline (11%)[6] | MICS, FSNAU household nutrition assessment data, CSI – coping strategies index | |
| 3.3 Local availability and consumption patterns of nutrient dense foods are better understood and knowledge-base is used to promote increased intake of energy, protein and micronutrient-rich foods | 3.3 a) Local availability and consumption patterns of nutrient dense foods are identified, documented and used in BCC | Report | |
| 3.4 Common practices that inhibit micronutrient absorption are better understood and addressed | 3.4 Reduction in common practices that inhibit micronutrient absorption (baseline frequent tea consumption 72%)[7] | | |
| 3.5 Improved access to nutrition counselling for pregnant and lactating women through health services and community based structures | 3.5a 80% pregnant and lactating women attending MCH services access nutrition counselling | HMIS | Security situation allows access for implementation and utilisation of services |

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| | 3.5b Number of pregnant and lactating women receiving nutrition counselling through community based delivery mechanism | Activity reports | Target groups comply with advice |
| Activities: | | | |
| 3.1.1 Conduct formative research to understand current practices & assess barriers and opportunities to optimal breast feeding practices | 3.1.1 Barriers & opportunities identified | Research report | Findings are reliable |
| 3.1.2 Develop and implement an IYCF training plan and curricula for community based breastfeeding counsellors (BFC) and MCH staff, including training of master trainers | 3.1.2a master trainers are trained<br>3.1.2b curriculum is developed<br>3.1.2c training plan is implemented | Activity reports<br>Curriculum document published | Counsellors are motivated to provide support<br>Health facility staff are motivated to provide counselling |
| 3.1.3 Provide individual counselling and support for exclusive breast feeding through a network of trained community based BFC & MCH staff | 3.1.3a number of BFC trained and active<br>3.1.3b number MCH centres providing breastfeeding counselling | Reports<br>Facility survey (GAVI HSS) | |
| 3.1.4 Review and adapt IASC/ ENN/IFE 'Integration of IYCF support into CMAM' materials to the Somali context | 3.1.4 Materials adapted by end of phase 1 | Documentation | Resources available |
| 3.1.5 Pilot Integration of IYCF support into CMAM approach in specified OTPs | 3.1.5 Pilots conducted in specified OTPs | Implementing partner reports | Security situation allows |
| 3.1.6 Develop and disseminate key messages & materials for mobilising community support for optimal breastfeeding through appropriate delivery strategies, including grandmothers, religious/community groups and leaders and mass media channels | 3.1.6a IEC materials developed<br>3.1.6b Messages disseminated through identified delivery strategies | Published materials<br>Documentation | Community groups etc willing to engage<br>Target audience receptive to new messages even if contrary to traditional beliefs |
| 3.1.7 Conduct market chain analysis of breast milk substitutes | 3.1.7 Report is completed and disseminated | Published report | |
| 3.1.8 Engage with private sector and develop & implement an advocacy strategy for | 3.1.8 Advocacy strategy is developed | Published strategy | Private sector willing to engage, receptive to |

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| | traders/importers of breast milk substitutes | | | advocacy |
| 3.1.9 | Conduct sensitisation on the principles and aims of International code of Marketing of Breast milk Substitutes with view to all parties adopting and signing | 3.1.9 Sensitisation is conducted | Implementing partner reports | |
| 3.1.10 | Develop a road map for the drafting and implementation of a local Code of Marketing of Breast milk substitutes | 3.1.10 Road map is developed | Published road map | |
| 3.2.1 | Conduct formative research to assess enabling factors and barriers to optimal complementary feeding practices | 3.2.1 Enabling factors and barriers are identified | Research report | Findings are reliable |
| 3.2.2 | Develop and implement a training plan and curricula for community based workers and health facility staff *(integrate into existing curricula for CHW & MCH & TBA)* | 3.2.2a Curricula & training plan is developed | Reports | |
| | | 3.2.2b Number of health workers trained in optimal complementary feeding practices | Database on trained health workers | Health staff are motivated to provide counselling |
| 3.2.3 | Develop key region-specific messages and recipes for optimal complementary feeding practices and integrate with simple messages on food safety and good hygiene practices | 3.2.3 Messages and recipes are developed | Reports | Target audience receptive to new messages even if contrary to traditional beliefs |
| 3.2.4 | Disseminate messages through effective delivery mechanisms including individual counselling, schools, religious/community groups & leaders and mass media channels | 3.2.4 BCC implemented | Activity reports | Institutions in the mechanism are willing to accept new innovation |
| 3.3.1 | Conduct formative research on identification of locally available nutrient dense foods and habits, taboos, practices that influence their consumption | 3.3.1 Research conducted & findings disseminated | Research report | Community willing to share knowledge and information |
| 3.3.2 | Based on above, develop key messages and recipes to promote consumption of appropriate | 3.3.2 Key messages developed & disseminated | Activity reports | Target audience receptive to new messages even if |

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| | nutrient dense foods, including seafood and offal, and disseminate to general population through appropriate community based delivery channels | | | contrary to traditional beliefs |
| 3.3.3 | Link with agriculture/livelihoods sector to promote production & utilisation of locally available nutrient dense foods | 3.3.3 Number of inter sector technical consultations held | Reports | Agriculture and livelihoods sector receptive to collaboration |
| 3.3.4 | Link with agriculture/livelihoods sector to increase understanding and use of appropriate food preservation techniques especially of milk and milk products | 3.3.4 Forum on food preservation techniques established | Reports | |
| 3.4.1 | Conduct formative research to identify common practices that cause significant inhibition of micronutrient absorption from diet | 3.4.1 Research conducted & findings disseminated | Research report | Community willing to share knowledge and information |
| 3.4.2 | Develop key messages aimed at reducing these practices and disseminate to general population through appropriate community based delivery channels | 3.4.2 Key messages developed & disseminated | documentation | Target audience receptive to new messages even if contrary to traditional beliefs |
| 3.5.1 | Develop and implement training plan and curricula on nutrition counselling skills for pregnant and lactating women for CHW & MCH staff | 3.5.1 Curricula & training plan developed & implemented | Data base on trained personnel | MCH staff motivated to provide counselling |
| 3.5.2 | MCH staff provide appropriate nutrition counselling (including local food demonstrations) at antenatal and post natal visits | 3.5.2 80% pregnant and lactating women attending MCH receive nutrition counselling | HMIS | Pregnant & lactating women receptive to counselling |
| 3.5.3 | Conduct trials to identify innovative population based delivery mechanism for nutrition counselling for pregnant and lactating women | 3.5.3 Trials conducted & delivery mechanism identified | Trial reports | |
| 3.5.4 | Establish population based delivery mechanism (including monitoring system), providing training, technical & material support | 3.5.4 Delivery mechanism established | Activity reports | |

**Outcome 4**

| Project description | Indicators | Source of verification | Assumptions |
|---|---|---|---|
| Outcome 4:<br>Improved availability and coverage of micronutrients and de-worming interventions to the population | [8] Increasing trends in bi annual vitamin A supplementation in children 6-59 months, and deworming coverage in 1-5 years, school aged children, pregnant (not 1st trimester) & lactating women | Baseline coverage data from Micronutrient survey<br>MICS, FSNAU survey reports | Access to functioning health services<br><br>Access to food security<br><br>Access to healthy environment |
| Outputs:<br>4.1 Increased availability of fortified food | 4.1a 20% cereals provided as humanitarian assistance are fortified by end of third year<br>4.1b 20% increase in availability of fortified food (non humanitarian) by end of third year | WFP data<br><br>WFP data on imports | Community willing to accept fortified food |
| 4.2 Improved access to and utilisation of micronutrient supplements and fortified supplementary food by vulnerable groups, including under fives, pregnant and lactating women, through health services and community based delivery strategies | 4.2a at least 80% accessible children 6-59 months received bi-annual Vitamin A through CHD<br>4.2b 90% children 6 to 59 months in nutrition programmes received vitamin A dose<br>4.2c 80 % women and children who access MCH services receive recommended multiple micronutrient supplementation<br>4.2d Number of pregnant and lactating women who received multiple micronutrient | CHD reports/FSNAU nutrition survey reports<br><br>Implementing partner reports<br><br>HMIS<br><br>MICS<br>Programme data | Security situation allows access for implementation and utilisation of services<br><br>Micronutrient supplements & fortified supplementary food acceptable to target populations<br><br>Target populations comply with supplementation regime |

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| | supplementation through community based delivery mechanism | | |
| | 4.2e 95% of targeted beneficiaries received fortified supplementary food | Implementing partners reports<br>Programme evaluation data | |
| 4.3 Increased coverage of de-worming through population-based delivery mechanisms: a) Child Health Days, b) schools, c) MCH services and d) nutrition programmes | 4.3a >80% accessible children aged 1 to 5 years receiving de worming through CHD | CHD reports | |
| | 4.3b 70% children attending school receive de-worming | School reports of de-worming activities/ programme reports<br>HMIS | |
| | 4.3c 40% eligible pregnant (not 1st trimester)and lactating women attending MCH receive deworming | | |
| | 4.3d 90% eligible nutrition programme beneficiaries receiving de-worming | Implementing partner reports | |
| Activities: | | | |
| 4.1.1 Form a food fortification sub working group of the nutrition cluster, with defined TORs and membership | 4.1.1 Food fortification sub working group is formed and meets regularly | TORs<br>Meeting reports | |
| 4.1.2 Commission food fortification expert for period of 6 months | 4.1.2 Expert is commissioned | | Suitable candidate available |
| 4.1.3 By end of first year, conduct feasibility study of how fortification of cereal flours for humanitarian food assistance can be improved, including the definition of targets to be achieved over subsequent two years | 4.1.3 Feasibility study conducted & targets defined | Report | |
| 4.1.4 Pilot project of inclusion of fortified cereal flours in humanitarian assistance general food ration | 4.1.4 100% targeted population receiving fortified cereal | Implementing agencies reports | Sufficient supplies and logistic support |

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| | conducted for a specific target population defined by nutrition & food aid clusters | | flours in humanitarian assistance general food ration | |
| | | | | Willingness of private sector to engage |
| 4.1.5 | Develop a framework and action plan, including regulatory mechanism, for the fortification of imported food through engaging with national and local authorities and private sector | 4.1.5 | Framework, action plan and regulatory mechanism developed | Documentation |
| | | | | Financial and material resources |
| 4.1.6 | Implement action plan for fortification of imported food | 4.1.6 | 95% action points of plan implemented | Review of activities |
| 4.1.7 | Explore the potential for fortification of local available food through engaging with local and national authorities and private sector during year 1 | 4.1.7 | Potential for local fortification is defined | Report |
| 4.1.8 | Conduct investigation into iodine situation in country | 4.1.8 | Investigation is conducted | Documentation |
| | | | | CHD workers motivated |
| 4.2.1 | Provide training, supplies and monitoring input to improve distribution of vitamin A supplements to all children 6 -59 months through bi-annual child health days | 4.2.1a<br>4.2.1b<br>4.2.1c | > 90% CHD workers trained,<br>>90% required supplies provided<br>>95% monitoring targets met | CHD evaluation reports |
| 4.2.2 | Develop simple Somalia specific standardised protocols for micronutrient supplementation for pregnant & lactating women | 4.2.2 | standardised protocol developed | Documentation |
| | | | | Health workers motivated to provide micronutrient supplementation |
| 4.2.3 | Develop and implement curricula and training plan for CHW and MCH staff on micronutrient supplementation | 4.2.3 | Number of CHW and MCH staff trained on micronutrient supplementation | New database on training received by health workers |
| | | | | Sufficient resources & efficient logistical support available |
| 4.2.4 | Provide micronutrient supplementation supplies on timely basis | 4.2.4 | Number of days stock outs | HMIS |
| 4.2.5 | MCH staff provide appropriate micronutrient supplementation at antenatal and post natal visits | 4.2.5 | 80% pregnant and lactating women attending MCH receiving micronutrient supplementation | HMIS |
| | | | | Institutions/groups identified willing and accepting of involvement |

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| 4.2.6 Conduct trials to identify innovative population based delivery mechanisms for multiple micronutrient supplementation to women of reproductive age | 4.2.6 Population based delivery mechanism identified by end of phase 1 | Activity reports<br>Trial reports | Sufficient resources & efficient logistical support available<br>Targeted beneficiaries willing to use new mechanism |
| 4.2.7 Based on trials, scale up population based delivery mechanism for multiple micronutrient supplementation, including protocol development, training, supplies and monitoring system | 4.2.7 Delivery mechanism for multiple micronutrient supplementation is established in selected areas, by end phase 2 | Implementing agencies reports | Home fortification products acceptable to beneficiaries |
| 4.2.8 Conduct feasibility study of home fortification products, defining targets and action plan for subsequent implementation | 4.2.8 Feasibility study is conducted, targets set, action plan defined, by end of phase 1 | Study report | Targeted beneficiaries use supplementary foods as instructed |
| 4.2.9 Implement action plan on home fortification products according to feasibility study recommendations | 4.2.9 Action plan implemented in selected areas, by end of phase 2 | Activity reports | CHD & nutrition programme workers motivated to provide deworming |
| 4.2.10 Distribute fortified supplementary foods to vulnerable groups in selected high risk areas as defined by nutrition cluster | 4.2.10 75% targeted beneficiaries reached | Implementing agencies reports | Schools receptive and willing to implement deworming |
| 4.3.1 Provide training, supplies and monitoring input for deworming to bi annual CHDs & nutrition programmes | 4.3.1a 95% CHD workers trained,<br>4.3.1b 95% required supplies provided<br>4.3.1c 95% monitoring targets met | CHD & nutrition programme reports | Health staff motivated to implement protocol |
| 4.3.2 Develop simple, Somali specific protocol for deworming in schools, including system for monitoring & evaluation | 4.3.2 a) Protocol is developed b) increasing trends in x% schools implementing protocol[9] | Documentation | |
| 4.3.3 Provide technical (WHO) & logistical (WFP) support to schools deworming programme | 4.3.3 90% targeted schools receive defined support | School, WHO, WFP reports | Sufficient supplies and efficient logistical support |
| 4.3.4 Develop simple protocol for deworming of pregnant & lactating women and children 1-5 years at MCH facilities & Heath posts, aimed at | 4.3.4a Protocol is developed<br>4.3.4b increasing trends in x% health facilities implementing | Documentation<br>Facility survey data | |

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| | reducing missed opportunities | deworming protocol[10] | | |
| 4.3.5 | Provide training & timely supplies to CHW & MCH staff for effective implementation of deworming protocol | 4.3.5a Number of health staff trained and active on deworming<br>4.3.5b Number of days of stock outs of deworming drugs | New database on training of health workers<br>HMIS Supply data | |

**Outcome 5**

| Project description | Indicators | Source of verification | Assumptions |
|---|---|---|---|
| Outcome 5:<br>Improved mainstreaming of nutrition as a key component of health and other relevant sectors | 70% health, WASH, livelihood, education and food aid CAP projects include nutrition indicators<br><br>50% of health, WASH, Livelihood, education sector projects include nutrition activities<br><br>Nutrition activities/outcomes are included in UNSAS | CAP review<br><br>3Ws of sector clusters and working groups<br><br>UNSAS review | |
| Outputs:<br>5.1 Nutrition is effectively incorporated into the policies, strategies, activities, delivery mechanisms and outcomes of health sector | 5.1a number of relevant health sector policies etc including nutrition indicators<br>5.1b 60%[11] women and children attending MCH services who receive appropriate nutrition screening, nutrition counselling & micronutrient treatment or supplementation by end of first phase, increasing to 80% by end of phase 2<br>5.1c >80% targeted beneficiaries of CHD receiving vitamin A, nutrition screening & deworming<br>5.1d Nutrition interventions are included as core component in | Review of policy, strategy activity documents<br><br>HMIS<br><br>CHD evaluation reports<br><br>Review of policies and programmes | Willingness of other sectors to collaborate |

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| | management of relevant communicable and non communicable diseases eg TB, HIV, malaria, mental health | | |
| 5.2 Nutrition is integrated into the policies, strategies, activities, delivery mechanisms and outcomes of WASH, livelihoods, education and food aid sectors | 5.2a WASH<br>50% of relevant WASH interventions include nutrition indicators as measure of impact<br>75% nutrition programmes delivering good hygiene promotion activities | Review of policies and projects | Willingness of health sector to collaborate<br><br>Sufficient resources available |
| | 5.2b Agriculture/Livelihoods<br>70% relevant projects incorporating nutrition indicators as outcome indicators,<br>70% relevant projects use nutrition status for targeting interventions<br>70% relevant projects include nutrition education as a supporting activity | Review of policies and projects | |
| | 5.2c Education<br>70% schools provide nutrition education as part of regular curriculum | Review of curricula<br>School reports | |
| Activities:<br>5.1.1 Foster improved intersectoral collaboration & define priority areas for partnership | 5.1.1a number of intersectoral consultation meetings held<br>5.1.1b x% attendance at sector cluster meetings[12] | Meeting reports | Willingness of other sectors to collaborate |

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| 5.1.2 Establish mechanism for technical nutrition input into relevant meetings, reviews | 5.1.2 mechanism established | Reports | |
| 5.1.3 Provide necessary inputs (funding, training, supplies, monitoring) to improve quality of nutrition services delivered through CHDs, according to defined targets | 5.1.3 90% inputs provided, according to defined targets | CHD evaluation reports | Sufficient supplies & logistical support to implement CHDs effectively |
| 5.1.4 Provide necessary inputs to improve quality and coverage of nutrition services delivered through health facilities (standardised guidelines and protocols for nutrition activities, supplies, comprehensive training for health facility staff) | 5.1.4a x% health facilities using standardised guidelines/protocols[13]<br>5.1.4b Number of days stock outs of nutrition supplies<br>5.1.4c x% health facility staff received nutrition training[14] | HMIS<br>Facility based survey<br>HMIS Supply data<br>Database on trained health personnel | Health facility staff motivated to implement nutrition activities<br>Sector open to advocacy |
| 5.1.5 Conduct mapping of areas with poor access to health services | 5.1.5 Mapping conducted and documented | Reports | Sufficient resources available |
| 5.1.6 Advocate in locations where availability of health services is a limiting factor for optimal nutrition | 5.1.6 Number of advocacy meetings held | Meeting reports | |
| 5.1.7 Conduct sensitisation on nutrition as determinant of health and development among line ministries and advocate for inclusion of nutrition interventions as core component of public services | 5.1.7 Number of meetings held to discuss nutrition with line ministries | Meeting reports | Willingness of other sectors to collaborate |
| 5.2.1 Foster intersectoral collaboration and define priority areas for partnership with each sector *(eg agriculture/livelihoods- improving dietary diversity, WASH: BCC- integrating promotion of optimal nutrition and good hygiene practices, education- integrating nutrition education into school curricula)* | 5.2.1a number of intersectoral consultation meetings held,<br>5.2.1b x% attendance at sector cluster meetings[15]<br>5.2.1c Priority areas defined | Reports | |

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| 5.2.2 Establish a mechanism for technical nutrition input into relevant process | 5.2.2 Mechanism established | Report | |
| 5.2.3 Provide technical input, training and materials for improving nutrition component of relevant sector programming, according to agreed targets | 5.2.3a Number of technical consultations held<br>5.2.3b >90% agreed materials supplied<br>5.2.3c 90% agreed trainings held | Consultation reports<br>Programme reports<br>Programme reports | |
| 5.2.4 Conduct mapping of areas with poor access to WASH/ agriculture/livelihoods/education /food aid services | 5.2.4 Mapping conducted | Documentation | |
| 5.2.5 Advocate in locations where availability of WASH/agriculture/livelihoods/education/food aid services are a limiting factor for optimal nutrition | 5.2.5 Number of advocacy meetings held | Meeting reports | |

**Outcome 6**

| Project description | Indicators | Source of verification | Assumptions |
|---|---|---|---|
| Outcome 6:<br>Improved capacity and means in country to deliver essential nutrition services | Feeding programme performance indicators as a measure of capacity of LNGOs to deliver treatment<br><br>Increasing trend in number of MoH personnel trained in nutrition<br><br>Increasing trend in number health facilities with personnel trained in nutrition<br><br>Activities of local established structure – develop set of performance indicators as part of TORs | UNICEF database<br><br>MoH reports<br><br>Database on health workers and training received<br><br>Activity reports | Security situation allows delivery of services |
| Outputs:<br>6.1 A two year nutrition sector capacity development strategy and plan of action is developed jointly with local authorities by the end of 2011<br>6.2 Capacity development and training activities are implemented according to plan of action<br>6.3 Regional training and mentoring cells are formed by the end of 2011.<br>6.4 Internationally recognised training guidelines and protocols are adapted to the Somali context<br><br>6.5 An enabling environment for all stakeholders to | 6.1 Strategy and action plan is developed<br><br>6.2 x% of activities defined in action plan are implemented[16]<br>6.3 Cells are established<br><br>6.4a 90% of relevant guidelines and protocols adapted to Somali context<br>6.4b 80% partners using adapted guidelines by end phase 2 | Reports<br><br>Published strategy<br><br>Reports<br><br>Review of documents<br><br>Partners reports<br><br>Stakeholder reports | Health authorities, line ministries are supportive and provide necessary conditions for implementation<br>Resources for capacity development strategy are forthcoming<br><br>New training & mentoring cells accepted and given sufficient mandate |

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| implement quality nutrition programmes is created and sustained in collaboration with the local authorities | 6.5 90% of targeted stakeholders receiving necessary equipment, materials and resources, according to a standardized and accepted list of materials ie computer, internet connection, photocopier etc. | and agencies supply data | Sufficient resources available |
| Activities: | | | |
| 6.1.1 Establish strategy development working group with defined TORs | 6.1.1 Working group established & TORs | Documentation | Working group members motivated |
| 6.1.2 Identify scope of strategy | 6.1.2 Scope defined | Documentation | |
| 6.1.3 Ensure multi faceted approach to development of technical skills – hands on training, workshops, distance learning opportunities, regional visits and workshops, appropriate nutrition training integrated into existing pre-service training curricula | 6.1.3 Multi faceted approach adopted | Review of strategy<br><br>Documentation | |
| 6.1.4 Create links with regional training/mentoring cells, international academic/training institutions | 6.1.4 number of links established | Documentation | |
| 6.1.5 Advocate for and identify funding of strategy | 6.1.5 x% funding identified[17] | Documentation | Donors are receptive |
| 6.2.1 Provide necessary support and inputs for implementation of plan of action | 6.2.1 90% inputs provided according to plan of action | Cell report | Sufficient resources available |
| 6.3.1 Define scope and role of regional training and mentoring cells | 6.3.1 TORs defined & agreed | Cell report | Health authorities, line ministries are supportive and provide |
| 6.3.2 Establish leadership and membership | 6.3.2 Leadership and membership endorsed | Documentation | necessary conditions for establishment of cells |
| 6.3.3 Identify gaps and training needs | 6.3.3 Gaps and training needs identified | Activity reports | Partners/agencies willing to |

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| 6.3.4 | Develop and implement training plan and curricula | 6.3.4a curricula developed by end phase 1<br>6.3.4b 80% training plan implemented by end phase 2 | Report<br><br>Review of documents | accept and support the concept of training and mentoring cells |
| 6.4.1 | Construct an inventory of internationally recognised training guidelines and protocols | 6.4.1 inventory complied | | |
| 6.4.2 | Adapt and translate the most relevant guidelines & protocols to the Somali context | 6.4.2 90% relevant guidelines & protocols adapted & translated | Supply data | Adaptations are acceptable and adopted by agencies |
| 6.5.1 | Provide necessary training, equipment, materials and resources to partners implementing nutrition activities, including MoH, line ministries, LNGOs and community institutions to enable them to implement nutrition interventions according to standardised guidelines | 6.5.1 90% resources provided according to guidelines | | Implementing partner staff motivated to implement activities |

[1] A database of all health care providers and the training they have received is currently being developed
[2] If included in the new MAM guidelines
[3] % to be confirmed
[4] % to be confirmed
[5] Reference Micronutrient survey 2009
[6] Reference MICS 2006 (revise after MICS 2010)
[7] Reference Micronutrient Survey 2009
[8] Ideally outcome indicator would be improved micronutrient status of population, reduced prevalence of anaemia, vitamin A & iodine deficiency but 3 years too short to measure significant changes & as yet no plan for repeat micronutrient survey
[9] % to be confirmed
[10] % to be confirmed
[11] Based on EPHS for Somalia 2008
[12] % to be confirmed
[13] % to be confirmed
[14] % to be confirmed
[15] % to be confirmed
[16] % to be confirmed
[17] % to be confirmed

# ANNEX 2 NUTRITION SITUATION ANALYSIS

**CONTENTS**

# 1. Background Information

Somalia is populated by a resilient and highly independent people, whose nomadic tradition plays a major role in determining their collective persona. Clan-based Somali culture has evolved to survive in the harsh and arid environment of the Horn of Africa. Since the collapse of central government in 1991 and resulting civil war, there have been many efforts to restore a central government in Somalia without sustained success. In 1991 the North west zone (NWZ) declared the independent state of Somaliland. This independence has not been recognized by most other countries but Somaliland has remained at relative peace and stability since, with governing administration in the capital Hargesia. The North east Zone (NEZ) declared itself as the autonomous region of Puntland in 1998. Although governed by its administration in its capital Garowe, it pledges to participate in any Somali reconciliation and reconstruction process that should occur. In South Central Somalia political conflict and violence continue to prevail, despite attempts to establish and support a central governing entity.

The combination of conflict, insecurity, mass displacement, recurrent droughts and flooding and extreme poverty, coupled with very low basic social service coverage, has seriously affected food security and livelihoods and greatly increased vulnerability to disease and malnutrition. The MDG health-related indicators are among the worst in the world. Life expectancy is 45 years. One child in every twelve dies before the age of one year while, one child in seven dies before the age of five.

# 2. Current Nutrition Situation

Today, almost all Somalis are affected by the fragile security environment, large-scale population displacements, food insecurity and lack of basic social and health services, with coping mechanisms stretched to the limit as families struggle to absorb these multiple shocks. The result is alarming rates of acute malnutrition and chronic malnutrition throughout the country with some variations by zone and livelihood system.

**2.1 Acute malnutrition**

According to the most recent analysis from FSNAU, the Post *Deyr '09/10* seasonal assessment, the national median rate of global acute malnutrition (GAM) was 16% based on WHO Growth Standards, compared to 19% for all 34 nutrition surveys conducted prior to the Post Gu 2009 assessment. The median rate of severe acute malnutrition (WHZ < 3 SD) was 4.2% compared to 4.5% Post *Gu* 2009. These current rates correspond to 1 in 6 (240,000[1]) children acutely malnourished (WHZ < 2 SD) of which 1 in 22 (63,000) children are suffering severe acute malnutrition with a 9 fold greater risk of early death than their well nourished counterparts. The FSNAU Post *Gu* assessment 2009 also estimated a further 84,000 pregnant women to be acutely malnourished, a condition which leads to poor intrauterine growth, low birth weight, stunting and developmental delay and predisposes to another generation of malnourished mothers perpetuating the intergenerational cycle of malnutrition.

Within the overall picture there are differences by zone and by livelihood system. Eighty one percent of the acutely malnourished children live in South and Central regions - the areas also affected most by insecurity and restricted humanitarian space. In Somaliland, rates of acute malnutrition are less critical but population density is high, meaning that in a relatively high proportion of total number of acutely malnourished children live there. This has important implications for the geographical coverage of interventions.

1 Caseload figures based on population figures from the UNDP 2005 settlement survey are used as the standard reference for Somalia

As highlighted by the Post Gu 2009 assessment and again in the more recent Post Deyr 09/10 assessment, Internally Displaced Populations (IDPs) continue to be the most nutritionally vulnerable, even those in the relative security of the northern regions. The median GAM rate among IDPs is 16.7% which is higher then the national rate, median SAM rate is 5.0% and the median stunting rate of 25% is the highest of all groups. Most IDPs in South Central Somalia are living in overpopulated camps with limited access to water, diversified food and adequate sanitation services. Furthermore, the influx of IDPs from the South to the northern areas has begun to strain already limited social services and create tensions with the local communities.

### 2.2 Chronic malnutrition

The FSNAU Post *Deyr* 09/10 assessment found very high rates of stunting of 22% in the South Central Somalia compared to 14% in Somaliland and 11% in Puntland. The higher rates in South Central Somalia reflect the chronic volatile situation causing population displacements, lack of administration and public services and loss of livelihoods. This compares to the relative peace and stability in Somaliland.

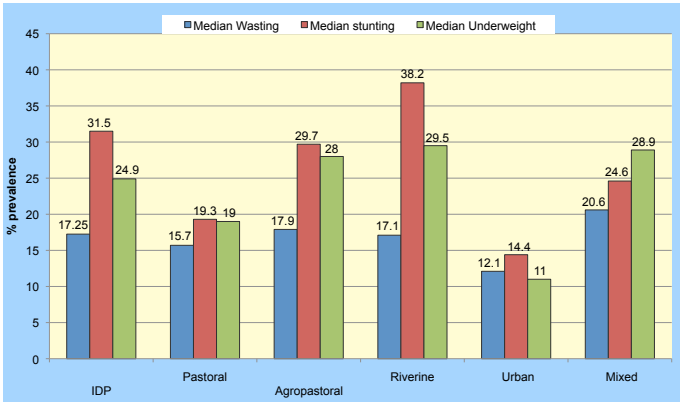
### 2.3 Trends in malnutrition- 2001 to 2008

Preliminary results from a meta analysis of FSNAU surveillance data 2001 to 2008 reveal that median rates of global acute malnutrition for this period did not vary significantly, remaining at *Critical* levels (WHO Classification 2000) throughout, with a national median rate of 15.7%. National median rates of stunting for the same period were 23.2%, ie at *serious* levels according to WHO classification 2000. Rates range from 12.4% in Togdheer region to 37% in Bay region. These results highlight how unacceptably high rates of acute and chronic malnutrition are a persistent problem in Somalia.

#### *Differences in malnutrition among the livelihood zones*

Figure 6 shows variation in median malnutrition rates for the period 2001 to 2008 according to type and by livelihood group. Rates of GAM differentiated by livelihood group were not significantly different from the national median rate. However, riverine and agropastoralist groups had the highest median rate of wasting, stunting and underweight suggesting a higher nutritional vulnerability to shocks of flooding drought, displacement and disease outbreak. Pastoralist group had the lowest rates of stunting. This may be due to physical stature masking the actual estimate (Sadler et al 2009).

**Figure 6: Trends in different types of malnutrition in Somalia by livelihood group**




Source: FSNAU 2010

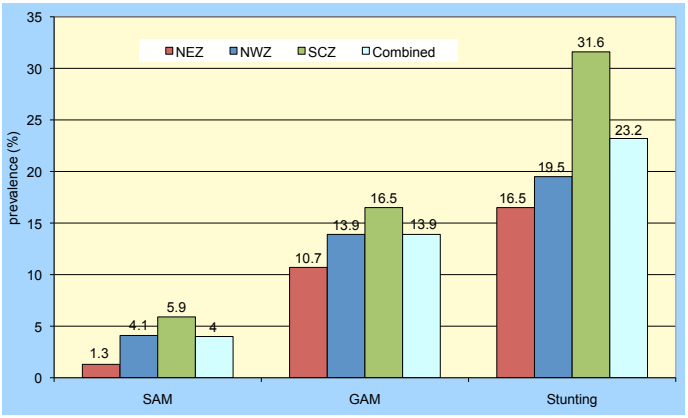
#### *Differences in malnutrition – Somaliland, Puntland and South Central Somalia*

Figure 2 highlights how median rates of wasting, stunting and underweight for the period 2001-2008 are all higher in South Central Somalia than Puntland and Somaliland. This reflects the chronic humanitarian situation in the zone where conflict and violence prevail with additional recurrent shocks of drought and flooding causing loss of livelihoods. Somaliland has experienced relative tranquillity and this is reflected in lower rates of malnutrition.

The meta analysis of FSNAU data from 2001 to 2008 also demonstrates how in all but one year (2003), median GAM rates in South Central Somalia exceeded the emergency threshold of 15%. In 2003, the median GAM rate for South Central Somalia was still high at 13.3%.

The results of the National Micronutrient and Anthropometric Nutrition survey 2009 confirm this pattern of higher prevalence of stunting and wasting in South Central Somalia compared to Somaliland and Puntland (see figure 7). The meta analysis of data for 2010-2008 also reveals variation by region. Gedo region is the worst affected region across the country with a median acute malnutrition rate of 21.5% and a persistently *Very Critical* nutrition situation. Galgadud (18.4%), Bay (18.0%), Bakool (17.1%) and Hiran (16.7%) also show high median wasting rates over the period 2001-2008.

**Figure 7: Malnutrition rates by zone, according to National Anthropometric Micronutrient Survey results 2009**




Source: FSNAU 2010

## 2.4 Micronutrient malnutrition

Throughout Somalia the presence of risk factors for micronutrient malnutrition (poverty, poor access to food, low diet diversity, high morbidity) is high suggesting micronutrient deficiencies are a significant public health problem. The findings of MICS 2006 showed that only 1.2% of households use iodised salt while coverage of Vitamin A supplementation in children 6 to 59 months was 24% but otherwise data on the extent of the problem was limited. In 2009 a national micronutrient and anthropometric nutrition survey was conducted to address the information gap and inform appropriate responses. The national two stage cluster survey was conducted in the three zones to determine the prevalence of vitamin A deficiency, Iron deficiency and anaemia in children 6-59 months and women of reproductive age and iodine deficiency in school aged children and women. Information was also collected regarding infant feeding and care practices and anthropometric status. Field work was completed between March and August 2009, followed by laboratory analysis of samples.

Results of the survey demonstrated the prevalence of both nutritional anaemia and vitamin A deficiency in women and children of all age groups are severe according to WHO classifications and therefore are of significant public health importance.

*Testing for Anaemia, FSNAU*

Anaemia prevalence was 59.3% for children aged 6 to 59 months, 38.5% for school aged children, 46.6% for non pregnant women and 49.1% for pregnant women. In children aged 6 to 59 months, there was no significant difference in prevalence of anaemia between the zones but rural children were found to be 50% more at risk of developing anaemia than their urban counterparts. There was also a significant difference between prevalence of anaemia in children less than two years (73.7%) and those over two (51.9%).

Findings for the prevalence of vitamin A deficiency indicate a severe situation according to the WHO classification of above 20% prevalence, across all zones and each group. Among children 6 to 59 months, the overall prevalence of vitamin A deficiency was 33.3%, with a higher prevalence in South Central Somalia (40.7%) compared to Somaliland (25.6%) and Puntland (24.1%). Similarly, overall prevalence of vitamin A deficiency in school aged children was 31.9% and in women, 54.4%.

Regarding iodine, interestingly, the survey found high urinary iodine concentrations in all groups. The reasons for this are not clear at this stage and will be subject to further investigation. Possible reasons include dehydration of subjects or high iodine content of water but do not include high intakes of iodised salt as overall use of iodised salt was found to be very low at 3.9% (0.4% in the Somaliland, 0.15 in Puntland and 6.7% in South Central Somalia. The prevalence of visible goitre among women was significant in Somaliland at 3.3% compared to 1.4% in South Central Somalia. This indicator was not investigated in Puntland. Goitre can be due to excessive or inadequate intake of iodine.

# 3. Determinants of Malnutrition in Somalia

Malnutrition results from a complex set of factors and not one simple cause. The UNICEF conceptual model of the causes of malnutrition (see figure 8 below) provides a useful framework for the discussion of determinants of malnutrition in Somalia. The volatile political situation and its resulting insecurity, civil unrest or outright war have led to a chronic and continuing humanitarian crisis that is at the root of the high prevalence of malnutrition in Somalia. However, even in years of relative stability and improved food production, the malnutrition rates in some regions of Somalia have remained consistently high, providing evidence for the contribution of underlying causes.

**3.1 Food security (Food access and availability)**

Somalia is chronically food insecure. Overall, around 80% of Somali households rely on natural resource-dependent activities for their livelihood, making them highly vulnerable to environmental factors and shocks. Even in good years, Somalia is only able to produce 40% of its cereal requirements. In the last five years, local production has averaged about 30% of food needs. (ref WFP website). Somalia was a major recipient of international food aid even before the collapse of central government in 1991.

Food security varies wildly by area, season and according to climatic, political and economic factors (openness of cross border markets and internal urban markets). Traditionally, the sedentary farmers of the Juba valley and around Baidoa have suffered the most acute and long lasting nutritional crisis. In comparison the pastoralists have fared best as their mobile, cattle based strategy is flexible and adaptive to the stresses of conflict and insecurity. Pastoralists rely on the consumption and sale of milk and animal products for their livelihoods. Livestock milk availability and consumption has a very significant influence over the nutritional status of the pastoralist population as shown by a case study from West Golis/Guban livelihood zone described in the FSNAU Post *Gu* 2009 assessment. This shows that once availability of milk declines eg due to loss of livestock resulting from disease outbreak and or drought conditions, rates of acute malnutrition deteriorate to very critical levels but improve again once the livestock situation recovers and availability of milk increases. As discussed in the case study this demonstrates the natural ability to recover from shocks provided that they are not recurrent and cumulative.

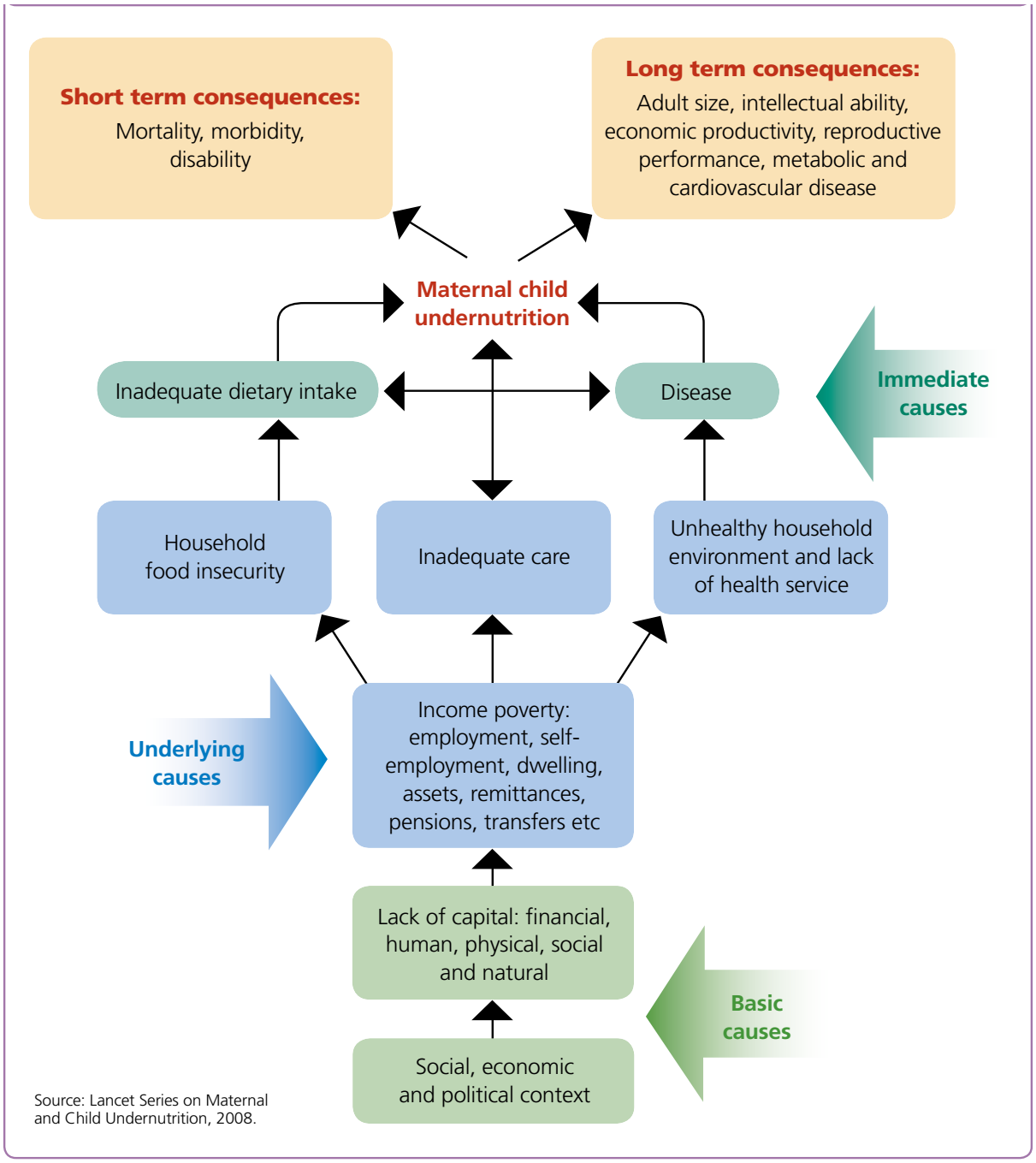
According to FEWS Net, underlying causes of food insecurity in the country are the following:

- Successive seasons of poor rains and seasonal flood affected crop and livestock production, which are the two main livelihood sources for the majority of the rural population.
- Recurrent conflict and civil insecurity, which have resulted in civilian displacement and restriction of internal and cross border trade flow.
- Chronic macroeconomic shocks, such as the persistent ban of livestock export and lack of employment opportunities, affected investment in productive sectors like crop and livestock.

Results of the most recently conducted FSNAU led multi-agency post *deyr* '09/10 seasonal assessment indicate some improvement in the overall food security situation in country, especially in rural areas of the south where crop and livestock production has improved following normal *deyr* rains. However, although the number of people estimated to be in need of emergency

humanitarian assistance and livelihood support has dropped to about 3.2 million (42% of the total population), this situation still represents a widespread ***Humanitarian Crisis*** affecting 42% of the total population. Conditions in the central regions of Mudug, Hiran and Galgadud are of particular concern. Failure of the deyr rains combined with escalation of conflict and resulting population displacements, on top of six consecutive seasons of drought mean that here 70% of the population are in need of urgent humanitarian assistance, which in turn is more difficult to deliver in the context of heightened insecurity and reduced access. The *deyr* rains also performed poorly in pastoral regions of the north and north east and has resulted in a deepening crisis in the Hawd, Addun and Sool plateau pastoral livelihood zones, with complete loss of livestock assets, especially sheep and goats.

**Figure 8: UNICEF Conceptual model of causes of malnutrition (taken from Lancet series on maternal and child undernutrition 2008**



At household level, indicators of food security include number of meals eaten per household per day and diet diversity or number of different food groups consumed a day. Results from the micronutrient study 2009 indicate that food security as measured by number of meals eaten per day is poorer in South Central Somalia where the majority of households (73.7%) consume two meals a day compared to Somaliland where the majority (64.8%) consume three meal a day. In Puntland, 45.2% households reported consuming two meals a day while 41.4% consume three meals a day.

*Manoocher Deghati IRIN*

Diversity of the diet at household level also reflects the adequacy of food access and availability. Dietary diversity is generally poor in Somalia and also relates to poor knowledge and food habits. Diets consist mainly of cereal (maize or rice) oil, sugar, seasonably variable access to milk and occasional access to meat. Vegetables and/or fruit are rarely consumed. Patterns differ for pastoralist populations for whom milk makes more significant contribution to the diet. According to the micronutrient study 2009, the percentage of households consuming less than four foods a day was similar across all three zones - between 15 and 20% for South Central Somalia and Somaliland and less than 10% for Puntland; the difference was not significant. The mean number of food groups consumed per day was 5.52. Results from WFP seven day recall assessment in Somaliland (WFP Food Security and Vulnerability Assessment 2008), highlight there is large variation by region and livelihood zone. Overall, 28% of the population consumed less than four food groups in the seven days prior to the survey but in some areas, up to 45% population consumed less than four food groups. 20% of the population were only consuming a staple, oil and sugar. 68% had seasonably variable access to milk and occasionally meat. In Puntland 2007, only 2% of households had a diet that included fruit. Results from the National Micronutrient and Anthropometric Nutrition survey 2009 also show that consumption of micronutrient rich foods including fresh fruits, vitamin A rich vegetables fish, eggs and meat products was generally poor across all three zones.

According to the FSNAU Post *Gu* 2009 assessment, dietary diversity is particularly poor in Bay and Bakool regions, where surveys found that 49% of Bay agro pastoralists, 55% of Bakool agro pastoralists and 61% of Bakool pastoralist households ate less than 4 food groups in the previous 24 hours. According to the same seasonal assessment, Bay and Bakool regions have the highest rate of chronic malnutrition. The other significant group found to have poor dietary diversity was IDPs in the northwest; 37% of households consumed less than four food groups a day. Poor dietary diversity was identified as a main factor contributing to the *Very Critical* nutrition situation of this IDP group in the post *Gu* '09 assessment. Generally, urban households are found to have greater household dietary diversity, according to FSNAU data.

Preliminary results from the FSNAU meta analysis 2001-2008 highlight the link between diet diversity and nutritional status, finding that children who consumed a less diverse diet (three or fewer food groups) were 1.12 times more likely (p=0.001) to be malnourished than those who consumed more diversified food groups.

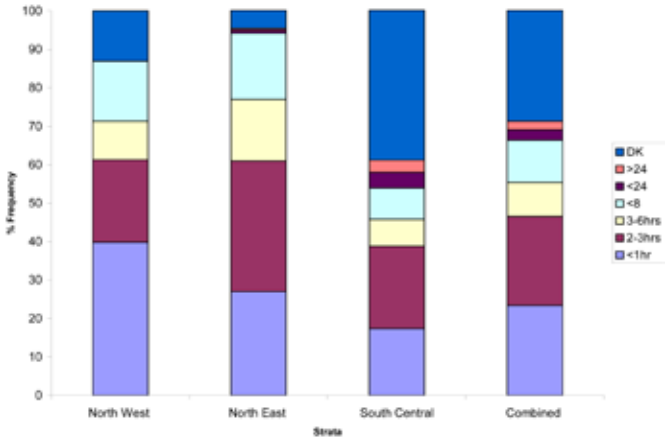
### 3.2 Social and care environment

This refers to the 'wider social and cultural context that shapes caring behaviours within the household and local community' (Young & Jaspers 2006). Appropriate child care including sound feeding practices, good hygiene, emotional support and appropriate health related behaviours are all essential for good nutrition and health.

The FSNAU KAP survey of 2007 revealed the extent of poor care practices for children and mothers. The study identified the following as significant problems:
Poor breast feeding practices
Early introduction of feeds
Birth spacing less than 1.5 years
Inadequate care for women/mothers
Poor complementary diets – in particular among riverine and agro pastoralists
Poor hygiene practices
Inappropriate home health practices during illness
Delay in seeking appropriate medical care

According to KAPS 2007 findings, throughout Somalia, initiation of breastfeeding is delayed till 2-3 days postpartum, as *colostrum*, is deemed harmful. However, results of the National Micronutrient and Anthropometric Nutrition survey 2009 shown in figure 9 taken from the survey report, indicate this practice is not as widespread as KAPS 2007 suggests. Overall, around 50% mothers reported initiation of breastfeeding within 3 hours of delivery.

**Figure 9: Breast feeding initiation**




(Source National Micronutrient and Anthropometric Nutrition Survey 2009)

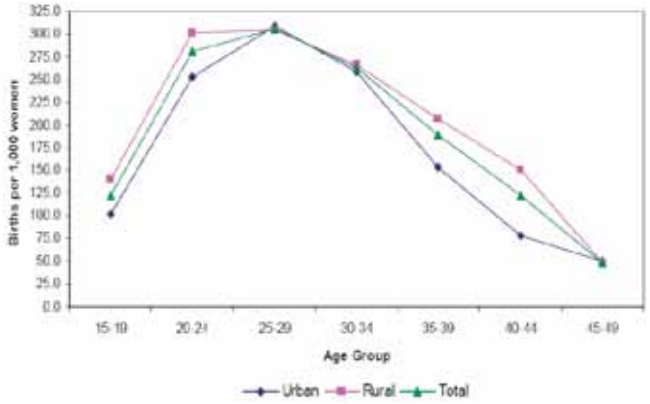
However, while breastfeeding is initiated by most women and practiced well into the 1st month postpartum, breastfeeding is not exclusive. Children are given water with sugar or other liquids such as cow or goat milk. According to a study of breastfeeding and dietary habits of children in rural Somalia (Ibrahim et al 1991), there was a complete absence of exclusive breastfeeding. Median duration of breastfeeding was 19.5 months but all children also received cow's milk by cup from the first day of life. Sugar, oil and water were also given daily from early infancy. The findings of MICS 2006, indicate that only 9% of infants are exclusively breastfed for 6 months. More recently, the national micronutrient and anthropometric nutrition survey 2009 found rates of exclusive breastfeeding to be 5.3% (95% CI 3.1 – 9.2%), with most mothers giving additional water. With the poor availability of safe water and the poor development of the child immune system, the likelihood of introducing water borne infections is high. Rates of exclusive breastfeeding were lowest in South Central Somalia, only 2.8% (95% CI 0.9 – 8.2%) and highest in Somaliland 12.7% (95% CI 6.7 – 22.7%); the rate in Puntland was 6.3% (95% CI 1.6 – 21.6%). According to the national micronutrient and anthropometric nutrition survey 2009, 60.8% of children aged 12-16 months were still being breastfed. This fell to 26.8% in the 20-23 month age group. Reasons for low levels of breastfeeding in Somalia include lack of knowledge of the importance of the practice, vigorous advertising of infant formulas and the persistence of inaccurate information and myths around breastfeeding. The reasons for apparent better breast feeding practices in Somaliland are worth further investigation and may provide lessons learned to be applied in Puntland and South Central Somalia.

Furthermore, adequate complementary feeding, defined by frequency and suitability of foods given, among all infants 0 to 11 months was just 11% with little variation according to mother's education, wealth, or urban-rural residence (MICS 2006), i.e. only one in ten are considered appropriately fed. By 24 months, children are expected to fend for themselves and eat like adults. As highlighted in the previous section, diversity of children's diets is poor and nutrient density low.

The KAPS study also identified widespread inappropriate home health practices during illness. One indicator of this is the change in frequency with which foods (breastfeeding and/or other foods) are offered during diarrhoea compared to when the child is healthy. According to results of the micronutrient survey, combined data for the three zones showed that 36.2%, 51.5% and 9.6% were offered feeding less that normal, same as normal and more that normal respectively during episodes of diarrhoea. 9.6% and 2.7% of the combined strata were given reduced feeding or withdrawn from feeding completely. Reduced feeding as well as withdrawal during diarrhoea can reduce the chances of full recovery and is an important risk factor for developing severe malnutrition. Practices were found to be particularly poor in Puntland, where no children were given more food, whilst around 70% were given less food than normal and for around 8% food was withdrawn completely during diarrhoea.

Often the care of children is closely linked with cultural and gender issues. In Somali society, women have a progressively stronger role to play in raising children, managing the household and earning income. However, male heads of household continue to make the main decisions over use of time and resources. Generally there is low value placed on women's health and although they may exercise greater power over health seeking behaviour for their children, they lack decision-making power over their own health. In general, women have far lower levels of education and lower access and utilisation of health services with rural women the most disadvantaged. Furthermore, as figure 10 taken from MICS 2006 below shows, a significant number of pregnancies occur in the 15 to 19 years age group, particularly for rural women. All these factors adversely affect the social and care environment of women and children and therefore their survival and nutritional status.

**Figure 10: Age-specific fertility rates by urban-rural residence, Somalia 2006**




(source: MICS 2006 report)

Maternal mortality ratio (MMR) is estimated as 1044 per 100,000 live births (MICS 2006) which is one of the highest in the region and corresponds to a lifetime risk of 1 maternal death for every 10 women. The high MMR is related to many factors including low age at first birth, high fertility rate, low skilled attendance at birth, poor maternal nutritional status and the presence of female genital mutilation. Limited basic care facilities – referral hospitals, MCH services, almost complete lack of emergency obstetric referral care for complications. According to MICS 2006, around a quarter of pregnant women have one antenatal care consultation. Only 6% of pregnant women visit the antenatal clinic more than 4 times. During delivery, 1 in 3 women are attended by a skilled attendant (doctor nurse, midwife or auxiliary midwife) but less than 10 % delivers in a health facility. Of women who had given birth in the preceding 2 years, 88% had received no postnatal care (MICS 2006). Data on low birth weight is very limited as only 5% of infants in Somalia are weighed at birth. According to MICS 2006, of those weighed at birth, 5% weighed less than 2500g.

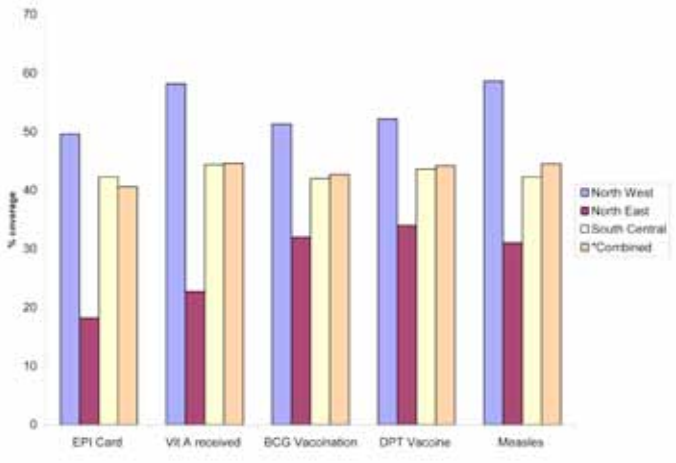
### 3.3 Access to health services and healthy environment

Public health programmes are critical in the prevention and control of disease and therefore in protecting and supporting nutrition. After eighteen years of conflict, the health care system in Somalia remains underdeveloped, poorly resourced, inequitable and unbalanced. The public health care delivery system operates in a fragmented manner, maintained largely by medical supplies provided by UNICEF and other agencies. In the absence of an efficient and adequate public health system, the private sector has flourished but remains unregulated with poor quality of services and poor access to the rural population. Over half of the estimated health workforce is unskilled and unsupervised and staff are paid a below subsistence wage. Most public facilities operate at a level far below their intended capacity and are poorly organized, with very low utilization rates (estimated as on average, one contact every eight years, according to Rossi and Davies 2008).

According to KAP study 2007, most health seeking responses are based on the traditional knowledge, beliefs and the perceived causes of the specific illnesses. Traditional healing and the use of herbal medicine play a major role in the management of illnesses for most communities. Across all livelihood zones, the first step in health seeking response for most caregivers is prayer or reading the Koran, after which most people buy drugs. Visiting a health facility only comes after all else has failed. There is a general lack of confidence towards public institutions.

Not surprisingly, overall coverage of essential health services is low, especially for rural and nomadic populations. According to MICS 2006, immunization coverage (1 year olds fully immunized) was only 5%, while 12% of children aged 12 to 23 months had received all three doses of DPT, for measles 29%. Of mothers who gave birth in the previous two years before the MICS 2006, only 9 percent received a Vitamin A supplement within eight weeks of the birth. Within the six months prior to the MICS, 24 percent of children aged 6-59 months had received a high dose Vitamin A supplement. More recent data from the national micronutrient and anthropometric nutrition survey 2009 results are summarised in figure 11 and suggest improved coverage of both immunisation and vitamin A. Overall coverage of vitamin A was 44.6% for children under five years of age. Coverage for Somaliland and South Central Somalia was significantly higher but this was related to recent implementation of Child Health Days in the two zones prior to the survey being conducted.

**Figure 11: Immunisation coverage among children under five years**




Source Micronutrient Survey 2009

A healthy environment in terms of adequate supplies of clean water, sufficient sanitation, appropriate shelter and clothing are crucial in terms of reducing exposure to disease. Throughout Somalia, the water and sanitation situation is extremely poor. MICS 2006 found that only 29% of the population had access to an improved source of drinking water (58% in urban areas, 14% in rural areas, 4% in nomadic groups). 81% of the rural population practices open defecation. More recently, the national micronutrient and anthropometric nutrition survey 2009 reported the use of improved water source in Somalia overall to be 32%. This suggests some improvement in access to safe water may have taken place over the four years between surveys.

Only just over half of households (55%) report that soap in the household was used for washing hands in one or more of the given situations (MICS 2006). The lack of clean water, poor hygiene and environmental sanitation are major causes of diseases in particular diarrhoeal diseases and cholera. Diarrhoeal diseases are the cause of 19% of deaths of children under five. According to MICS 2006, only 7% of children with diarrhoea receive appropriate treatment (ORS and continued feeding). Preliminary results from the FSNAU meta-analysis 2001-2008 indicate that diarrhoea is a significant predictor of acute malnutrition. The paradox is that the water and sanitation situation are major underlying cause of morbidity and malnutrition in Somalia, yet interventions have been relatively poorly funded.

The relationship between malnutrition and morbidity is well established. Disease outbreaks have shown to have a significant effect on malnutrition rates in Somalia. In Lower and Middle Juba regions, since March 2009 an outbreak of acute watery diarrhoea across all livelihoods coincided with a significant deterioration in the nutrition situation to *Very Critical* despite improvements seen in food security indicators in the region. In Shabelle and Juba, high rates of malnutrition were attributed to high incidence of acute watery diarrhoea and acute respiratory tract infections (FSNAU Post *Gu* 2009 assessment).

### 3.4 Education

The UNICEF conceptual model highlights inadequate education as one of the basic causes of malnutrition. According to UNICEF, only 24% of women are literate, while 20% of girls attend school. Overall 23% of children (25% of boys and 21% of girls) of primary school age attend primary school, (44% urban, 12% rural). For every 10 boys attending primary school, there are 8 girls, while for secondary school, for every 10 boys attending, only 5 girls. A large number of secondary school age children attend primary school due to lack of schooling opportunities that followed the overthrow of Siad Biarre in 1991 and the social chaos.

While each of these groups of underlying causes has been discussed independently of each other, there is a clear inter-connectedness between them. Underlying causes are overlapping and have a synergistic effect so that the combined effects of a failure of all three causes are much greater than the sum of their parts. This is the foundation of the need for an integrated, multi sectoral response. As discussed, different causes differ in their significance for the different regions and livelihoods. For example in urban populations, dietary diversity is much better than for the rural populations, and sub optimal care practices such as use of breast milk substitutes may be more significant in the explanation of malnutrition.

# 4. Current Nutrition Interventions

In response to persistently high rates of acute malnutrition, current nutrition interventions have been focused on saving lives through the management of acute nutrition.

### 4.1 Nutrition Cluster

Due to weak governance structures in parts of Somalia, nutrition response programming is mainly undertaken by UN, international and national agencies. The Nutrition Working Group (NWG) was initiated in 1995 to coordinate nutrition related issues. In 2006, as part of the UN Humanitarian Reform, the cluster approach was introduced. From the start this was integrated into the existing NWG. Thus the Nutrition Cluster and NWG exist as a single coordination structure, referred to as the Nutrition Cluster, for nutrition activities in Somalia. The primary purpose of the Nutrition Cluster is “to support and strengthen a coordinated approach in nutrition strategic planning, situation analysis and response both in emergencies and non-emergency situations.” (Nutrition Cluster TORs Dec 2009). There are currently 79 members of the Nutrition Cluster including local and international NGOS and UN agencies working in the field of nutrition in Somalia.

### 4.2 Food Security and Nutrition Surveillance

The Food Security and Nutrition Analysis Unit (FSNAU) is managed by FAO and funded by USAID/OFDA, the EC, SIDA, UNICEF and UNHCR. It has developed a very sophisticated system of regular and exhaustive food security and nutrition assessments. Information is collected through different surveillance systems including nutrition surveys, rapid Mid Upper Arm Circumference (MUAC) assessments, passive health facility-based screening and at some times and places, sentinel site surveillance. Data is analysed in the context of morbidity and food security indicators. Bi monthly nutrition updates are produced and bi annual assessments of the food security and nutrition situation are published. The food security and nutrition surveillance data is an important tool providing regular situational analysis to inform and guide appropriate responses to expected caseloads of acutely malnourished and emerging needs.

Additional food security information is provided through the Famine Early Warning Systems Network (FEWS NET). This is a USAID-funded activity that collaborates with international, regional and national partners to provide timely and rigorous early warning and vulnerability information on emerging and evolving food security issues. FEWSNET produces monthly food security updates, regular food security outlooks and alerts, as well as briefings and support to contingency and response planning efforts. More in-depth studies in areas such as livelihoods and markets provide additional information to support analysis as well as program and policy development.

WFP undertakes regular monitoring of market prices and has conducted baseline livelihood studies. Food security and vulnerability assessments have been conducted and published for Puntland in April 2007 and Somaliland in August 2008. Smaller assessments have completed in Mogadishu, Bossaso, El Wak in the South. A food security and vulnerability assessment is planned for Central region in 2010.

### 4.3 Management of severe acute malnutrition

*Measuring MUAC, IDP camp, Jowhar, UNICEF Somalia, Nick Ysenburg*

Outpatient therapeutic feeding programmes (OTPs) for the treatment of severe acute malnutrition are being implemented across Somalia by international NGOs and UNICEF in partnership with local NGOs, according to the “Operational Guidelines for the Treatment of Acute Malnutrition in Somalia” which were developed by the nutrition cluster in 2005, taking into account the challenging environment, reduced supervision and limited monitoring. Complicated cases are referred to stabilisation centres (SCs) for the initial period of treatment, although distance and location of centres in opposing clan territories are often barriers to access. WFP provides a caregiver and discharge rations in selected centres across Somalia. In 2009, UNICEF aimed to reach 60% of children under five with severe acute malnutrition through technical support and training of NGO partners and distribution of feeding supplies. At the time of writing there are 250 outpatient units for the ambulatory treatment of severe acute malnutrition in Somalia and around 20 in patient stabilisation centres, all but four integrated into existing health structures. This scale up of services for the management of acute malnutrition is impressive but gaps remain in the geographical coverage of OTPs and SCs due to the insecure environment, fragmented health system and availability of capable local partners. Map 1 on page 7 shows a map of the current nutrition situation and interventions as of November 2010.

**4.4 Management of moderate acute malnutrition**

Targeted supplementary feeding programmes (SFPs) for the treatment of moderately malnourished under-fives and pregnant and lactating women are being implemented by WFP through around 40 local and international NGOs. The current caseload is around 70,000 beneficiaries, of whom approximately 80% are under-fives and 20% pregnant and lactating women. 50,000 beneficiaries are being treated with corn soya blend (CSB), fortified vegetable oil, and sugar. In a pilot intervention, 20,000 are to receive ready-to-use supplementary food (supplementary plumpy) in Bakool, Bay, and Benadir regions of South Central Somalia, and in Puntland and Somaliland. In addition, WFP is providing a 'protection' ration for families of moderately malnourished under -fives. This currently provides around 60% of the energy needs of the family.

**4.5 Prevention of moderate acute malnutrition – food based interventions**

In selected sites in Puntland and Somaliland, WFP is providing fortified supplementary food to all children under-two and pregnant and lactating women through UNICEF supported MCH clinics. Currently 35 clinics are supported.

As a new initiative, during 2009 UNICEF launched a pilot intervention for the prevention of malnutrition targeting 100,000 children aged 6-36 months blanket distribution of ready-to-use food (Plumpy Doz) every two months in areas showing the highest malnutrition rates, with a particular focus on the Central and South Somalia, in Middle and Lower Shabelle and IDP camps in the north and poor urban areas.

From May to August 2009, WFP launched and completed an emergency blanket supplementary feeding covering 135,000 children aged 6-59 months in Galgadud and Mudug regions of Central Somalia as well as South Nugal in Puntland. This intervention was designed to prevent and treat moderate malnutrition in areas where very critical rates of malnutrition were recorded (GAM>20%) with very limited access to nutrition services.

**4.6 Institutional Feeding & School Feeding**

WFP is providing nutritional support to other vulnerable groups including HIV positive and TB cases, orphans, the mentally handicapped, and hospitalized patients either as a take home ration or as daily meals for in patients. This intervention currently supports 60,000 people including the family protection ration.

Around 90,000 school children provided with meals at school from fortified foods. Girls receive a take home ration of fortified oil to encourage attendance.

*School feeding, WFP Khalif*

**4.7 General food distribution**

WFP is providing food assistance to the rural population affected by the humanitarian crisis, the urban poor and IDPs with general food ration consisting of cereals, CSB, sugar, fortified oil and iodised salt when available. In 2009 WFP reached 3.3 million people a month on the basis of FSNAU seasonal assessments.

**4.8 Nutrition activities delivered through the health sector**

Nutrition interventions are delivered through the 3 levels of the health system – health posts, MCH Clinics and hospitals. Coverage and quality is currently limited due to overall weaknesses of the public health system.

A key intervention of the UNICEF/WHO Accelerated Young Child Survival initiative is the bi annual Child Health Days. These population based campaign days aim to provide at least 80 per cent of under-fives and over 60 per cent of women of child bearing age nationwide with high-impact child survival interventions: immunization against measles, polio, vitamin A supplementation, deworming, provision of oral rehydration salts, water treatment tablets, hygiene education, nutritional screening, and tetanus toxoid vaccination for women. These campaign days are especially important in the context of the majority nomadic and rural population who have limited access to regular health services.

**4.9 Other sector activities with nutrition focus**

- FAO Trials of Improved Practices. This project aims to identify and implement the most acceptable practices in the region for improving infant and child feeding practices. The method involves discussion with the mothers and caregivers in moving towards recommended IYCF over three household visits. The aim is to move from ideal recommendations to practical realistic recommendations. The project has been piloted in Hiran and Gedo regions which were identified by KAPs 2007 as being particularly vulnerable in IYCF.

- EU and FAO Integrated Support to Rural Livelihoods. The aim of this project is to mitigate the effects of soaring food prices in 2009 for 78,100 households in South Central Somalia. It aims to enhance agricultural production through cash for work programmes, distribution of packaged seed kits, tools and fertilizers. Resulting improvements to livelihood and food security should have a positive impact on nutritional status.

**4.10 Strengths, weaknesses, opportunities and threats of current interventions**

Table 1 summarises a SWOT analysis of the current nutrition interventions in Somalia. This analysis highlights the strengths of nutrition and food security surveillance and the current interventions for the management of acute malnutrition; weakness in areas of interventions to address underlying causes of malnutrition; opportunities for integration of complementary activities into existing nutrition programmes and the significant threats to quality programming by insecurity and poor access, weak health systems and low human resource capacity. In such a challenging operating environment, the use of existing programmes and structures as a delivery mechanism for integrated activities is crucial.

Table 2 summarises key existing initiatives and the opportunities they offer as delivery mechanisms for strengthening nutrition interventions.

**Table 1: SWOT Analysis of current nutrition interventions in Somalia**

| Strengths | Weaknesses |
|---|---|
| 1. Outpatient management of severe acute malnutrition using adapted international protocols to the situation in Somalia – flexible approach<br>2. The quality of food security and nutrition surveillance informing appropriate responses<br>3. Nutrition cluster co-ordination – member participation cooperation<br>4. Trials of new approaches to management of moderate malnutrition – Supplementary Plumpy and prevention of malnutrition - Plumpy Doz<br>5. Dedicated partners who have scaled up selective feeding interventions despite ongoing insecurity | 1. Geographic gaps in coverage of management of acute malnutrition<br>2. Limited stabilisation centres for complicated severe acute malnutrition – distance, transport, crossing clan areas<br>3. Low reporting of feeding programme performance indicators– only 60% from UNICEF implementing partners<br>4. Mapping of current nutrition interventions is unrealistic - agencies have stopped but not reflected on interventions map<br>5. Lack of integration of essential complementary activities into existing nutrition programmes eg deworming, IYCF, nutrition and hygiene education to give complete package of services,<br>6. Poor quality & coverage of nutrition interventions delivered through health facilities – nutrition counselling, micronutrient supplementation, deworming<br>7. Limited IYCF interventions<br>8. Micronutrient interventions limited to CHDs, fortified rations & SFPs<br>9. Efficacy of blended food (CSB) for management of moderate malnutrition is low due to high phytate content and practical difficulties to pre mix blended food with oil and sugar. Weak supervision also reduces success<br>10. Documentation of experiences of what works in Somali context<br>11. Constraints on monitoring and evaluation due to accessibility issues |
| **Opportunities** | **Threats** |
| 1. Integration of nutrition activities into existing programmes – (see table 2)<br>2. Integration of IYCF, hygiene promotion, delivery of basic health services into existing nutrition programmes (OTP/SFP sites)<br>3. Proven effective interventions that are cost effective are available (Lancet series, Copenhagen consensus) of which are feasible to Somalia in the next three years<br>4. Existing international guidelines and resources that can be adapted to the Somali context<br>5. Pilot of new initiatives by specific agencies – FAO TIPS, Community Conversations by Concern Worldwide<br>6. In good year 60% cereals are imported, creating opportunity for cereal fortification at source<br>7. Development of improved CSB by WFP HQ<br>8. Development of other products for micronutrient supplementation eg sprinkles, nutributter which focus on fortification at point of use<br>9. Micronutrient supplementation has high cost benefit ratio. Copenhagen consensus<br>10. Existing pre-service training institutions – opportunities for developing nutrition curriculum – doctors, nurses, nutrition courses. Links to international institutions<br>11. Internet access in Somalia for links to well recognised distance learning courses for capacity development | 1. Prolonged absence of unified central government limiting options for national policy framework and guidelines<br>2. Insecurity and conflict reducing access to supervise and expand programmes, train staff, develop outreach activities<br>3. Looting of supplies disrupting pipeline and distribution<br>4. Global economic situation and political issues affecting funding of programmes<br>5. Short term funding focused on emergency interventions rather than medium to longer term initiatives<br>6. Recurrent droughts and floods,<br>7. Active promotion and advertising of breast milk substitutes. Economic interests of traders/ importers<br>8. Traditional, generalised poor feeding, hygiene, sanitation and maternal and children care practices<br>9. Dispersed nature of malnourished population over wide geographical area<br>10. Difficulties of providing health and nutrition services to a substantial nomadic population and in arid low population density areas<br>11. Water and sanitation situation<br>12. Women's position in Somali society especially in rural areas - lower levels of education and lower access and utilisation of health services<br>13. Human resources for nutrition – educational level generally very poor, nutrition training in pre service institutions limited, |

**Table 2: Existing programmes presenting opportunities for integrating nutrition activities in Somalia**

| Programme & overriding objectives | Key nutrition related programme objectives | Key programme activities | Opportunities for integration of nutrition activities |
|---|---|---|---|
| **United Nations Transition Plan for Somalia 2008-09**<br><br>Three core 'pillars' or overall goals:<br>i) Deepening peace, improving security and establishing good governance;<br>(ii) Investing in people through improved social services; and<br>(iii) Creating an enabling environment for private sector-led growth to expand employment and reduce poverty | More women of reproductive age and children benefit from improved access to quality health services including child survival services.<br><br>Targeted beneficiaries have improved nutritional status | Health workers, especially women, in selected districts are able to provide better curative and preventive services on the basis of a package of essential services.<br><br>Health and nutrition communication strategy adapted, expanded and implemented<br><br>Communities and targeted families have improved capacity in processing, preparation and storage of food<br><br>Communities and targeted families have improved awareness of nutritional values of locally available/ introduced food | UNTP capacity development strategy<br><br>Health and nutrition communication strategy |
| **UNICEF/WHO Accelerated Young Child Survival Initiative (AYCS)**<br><br>Key objective is to focus on expanding access for young children and mothers to a key set of critical life saving interventions immediately and in the longer term. | (1) Continue with life saving emergency interventions<br>(2) Expand access to life saving interventions for all children through institutionalizing high impact population oriented services including campaign and outreach modes<br>(3) Expand access and utilization of the basic health care system through increased coverage of community based services and referral<br>(4) Use mass and inter-personal communications to promote positive behavioural change and improved health seeking behaviours. | Child health day aim to provide 90 per cent of under-fives and over 60 per cent of women of child bearing age nationwide with high-impact child survival interventions: immunization against measles, polio, diphtheria, pertusis and tetanus vitamin A supplementation, deworming, provision of oral rehydration salts, water treatment tablets, hygiene education, nutritional screening, and tetanus toxoid vaccination for women; | Opportunity for nutrition cluster to provide inputs to improve quality and coverage of nutrition interventions provided through CHD ie vitamin A, deworming and nutrition screening |

| | | | |
|---|---|---|---|
| **WHO/UNICEF GAVI Health System Strengthening** | | Strengthening of maternal child health centres & health posts (40 MCH + 80 health posts throughout 3 zones)<br><br>Recruitment training and deployment of 240 female community health workers (FCHWs)<br><br>Behaviour Communication Change (BCC) strategy<br><br>Operational research | Through collaboration with health sector, nutrition component of MCH services can be strengthened – development of standardised protocols, comprehensive training ( pre-service and in service) supervision and monitoring in following areas: assessment of nutritional status, IYCF and maternal nutrition counselling, micronutrient treatment and supplementation, prevention and control of diarrhoea<br><br>New innovation of FCHWs can be trained as breast feeding counsellors, to provide nutrition counselling for mothers and young children, the distribution of micronutrient supplementation, prevention and control of diarrhoea activities<br><br>Key nutrition messages can be incorporated into BCC strategy in particular regarding optimal breast feeding, complementary feeding, good hygiene and hand washing practices<br><br>Operational research will help in evaluation of feasibility and effectiveness |
| **WHO Community based Initiatives** (CBI)<br>CBI programmes aim to address health determinants through integrated socioeconomic development with active community involvement and inter-sectoral collaboration. | Basic development needs- formation of village development committees in 48 villages in CSZ, training of cluster representatives, needs assessment & prioritisation, project preparation with local solutions, implementation | Village development committees and representatives in place and trained with local priorities and solutions for improving health identified and sensitised.<br><br>Inter-sectoral collaboration | Delivery mechanism for key nutrition messages and advocacy for improved IYCF, hygiene and sanitation practices at the community level |

| | | | |
|---|---|---|---|
| **Essential Package of Health Services (EPHS) for Somalia 2008** | The EPHS is the prime mechanism for strategic service provision of the public sector health service. It helps to clarify health priorities and directs resource allocation. It defines MoH responsibilities and activities at central and regional levels, particularly in coordination, management and supervision of services. It clarifies the role communities play in creating a sustainable and accountable health system. | 4 service levels: i) primary health unit staffed by 1 trained community health worker who conducts promotional, preventive and curative activities; ii) health centre- first level at which obstetric services provided; iii) referral health centres and iv) hospitals offering 6 core programmes plus 3 additional programmes | CHWs can be trained in promotion of good nutrition, feeding, hygiene and sanitation practices, distribution of micronutrient supplementation to women and children, control of diarrhoeal disease including ORS & 10-14 days zinc treatment. Nutrition screening and referral,<br><br>MCH, health centre and hospital staff trained and supervised to provide all the above |
| **WHO/UNICEF/UNFPA Reproductive Health Strategy**<br>Three Strategic priorities for action:<br>i) Making pregnancy and childbirth safer<br>ii) Promoting healthy families<br>iii) Promoting beneficial and addressing harmful practices | Improve access, availability and quality of Maternal and Neonatal Health services<br><br>Improve affordable ready access to good quality birth spacing services for men and women.<br><br>Strengthen awareness among the population of the positive health benefits of certain traditional practices.<br><br>Increase numbers of qualified midwives and community midwives available for public sector in all three zones. | Promotion of ANC visits, home visits and individual counselling by CHWs<br><br>Promotion of exclusive breastfeeding by CHW<br><br>Strengthen awareness of benefits of exclusive and prolonged breastfeeding<br><br>Establish continuous post-basic and community midwifery courses in all three zones. | Delivery mechanism for maternal nutrition interventions, counselling and support for IYCF<br><br>Multiple channels multiple contacts<br><br>Inclusion of nutrition training modules for midwives |
| **EU and FAO Integrated Support to Rural Livelihood** with the aim of mitigating the effects of soaring food prices for 78,100 households in South Central Somalia | Vulnerable rural smallholders to benefit from income generating activities, increased levels of production and increased availability of agricultural products in the local markets. Plus the rehabilitation of infrastructure- canals, market places and roads. | Enhancing agricultural production through cash for work programmes, distribution of packaged seed kits, tools and fertilizers | Improved livelihood and food security should have positive impact on nutritional status |
| **FAO Trials of Improved Practices** pilot in Hiran and Gedo identified by KAP study as being particularly vulnerable in IYCF | This project aims to identify and implement the most acceptable practices in the region in improving infant and child feeding practices. The method involves discussion with the mothers and caregivers in moving towards recommended IYCF over three household visits. | Move from ideal IYCF recommendations to practical recommendations. | Pilot in Gedo and Hiran can be scaled up in other areas |

# ANNEX 3 JUSTIFICATION OF OUTCOMES AND KEY APPROACHES ADOPTED IN THIS STRATEGY

In this section, internationally recognised, proven effective interventions are linked with the priorities identified for Somalia and what is feasible in the context.

**Outcome 1 Improved access to and utilisation of quality services for the management of malnutrition in women and children**

The Lancet series on Maternal and Child undernutrition (2008) highlights that recent studies demonstrate new commodities such as ready to use therapeutic food (RUTF) can be used effectively to manage severe acute malnutrition in community settings. The Community based management of acute malnutrition (CMAM) approach increases the number of children who can be treated, reduces exposure to disease and reduces drop-out rates compared to standard management of acute malnutrition approach using therapeutic milks in a centre based setting (Collins et al 2006).

*Child eating Plumpynut Save the Children, Somaliland*

The development of RUTF and the CMAM approach has opened the door to significant expansion of services for the management of severe acute malnutrition in Somalia where the weak health infrastructure and high insecurity have been major challenges to centre based management. Since 2006, 250 OTPs supported by UNICEF have opened. Some coverage gaps remain particularly with respect to access to stabilisation centres or adequate facilities for referral of complicated cases. This is especially so in South Central Somalia where the majority of SAM cases live but humanitarian space is most limited. Quality of services is also an issue. Thus, the enhancement and expansion of quality interventions for the management of acute malnutrition in accordance with newly developed guidelines remains a priority. Whilst poor coverage of referral centres continues to be a major constraint to providing quality services, the promotion of community mobilisation as a key activity of all OTPs is an important approach to improving coverage and early diagnosis to reduce the presentation of complicated cases in need of referral. As it is such a key activity in this context, community mobilisation requires dedicated staff and resources.

The results of the micronutrient and anthropometric survey 2009 underscore the importance of scaling up services for the treatment of micronutrient deficiencies. Treatment services are currently limited by weakness in the health system and by poor access to and utilisation of health facilities. However, while not a remit of this strategy, health system strengthening is an overarching goal. The development of simple Somali specific standardised protocols in conjunction with pre-service and in service training modules on diagnosis and treatment of MND for all health staff, and commitment to timely provision of supplies, will contribute to improving treatment services.

Management of malnutrition also involves its prevention. As highlighted in the section on outcome 2, behaviour change communication strategies to improve complementary feeding practices have been proven effective in improving growth outcomes in young children. However, as the Lancet series on undernutrition concluded, such strategies alone were of most benefit in populations that had sufficient means to procure appropriate food. In food insecure populations, nutrition education had a greater impact when food or food supplements were provided. Furthermore, the recent review of complementary feeding (Dewey and Adu-Afarwuah 2008) found that interventions in which micronutrient supplementation alone was provided generally had little or no effect on growth.

This strategy includes key outputs for addressing longer term goals of improving diet diversity and increasing consumption of local nutrient dense foods. However, in the meantime the evidence cited above underscores the importance of providing food based interventions to meet energy and protein, as well as micronutrient, requirements for the prevention of undernutrition in high risk areas of food insecurity in Somalia. In these areas where locally available foods alone will not satisfy nutritional requirements, additional food products can fill a critical gap in nutrients as a complement to continued breastfeeding and the local diet, not as a replacement. Thus food based interventions will be accompanied by counselling on continued breastfeeding, responsive feeding and good hygiene practices.

The review by Dewey and Abu-Afarwuah (2008) also found that in several studies the impact of providing a complementary food in combination with nutrition education was evident only in the younger children. This reiterates the 'critical window of opportunity' and the importance of targeting food based interventions to prevent undernutrition in the 6 to 24 months age group.

*Child eating Plumpydoz, IDP camp Jowhar, UNICEF Somalia*

In Somalia the options for products for food based interventions are corn soy blend (CSB) or the new lipid-based nutrient supplements (LNS). LNS are a range of products fortified with multiple micronutrients and in which lipid is the primary source of energy. There are pros and cons to both types of products. Blended food has long been used in Somalia. Its acceptability is proven, it is cheap and there are limited pipeline issues. On the negative side, the efficacy of blended food has more recently been questioned with varied results achieved. The energy density of blended food is low compared to the stomach capacity of a small child. The high phytate content of the current CSB inhibits micronutrient absorption while there is a lack of animal protein. Furthermore there are two factors of the Somali context which further reduce the efficacy of CSB. Firstly, it is rarely possible to premix blended food with oil and sugar therefore energy density is compromised. Secondly, limited supervision is possible and weak supervision has been demonstrated to reduce success (Navarro-Colorado et al 2008)). In addition, a recent review article found evidence of the efficacy of fortified blended foods for improving nutritional outcomes to be currently limited and weak (Perez-Exposito and Klein 2009). Two new products under development, CSB+ (pregnant & lactating women, children 2-5 years) and CSB++ (children under two), may improve the effectiveness of blended food in the future.

The advantages of LNS pertinent to the Somali context include: LNS are high quality fortified foods that can be used at home without the need for water or premixing or cooking; they are stable and resistant to spoilage, the micronutrients do not interact; they provide additional energy and increase energy density of complementary foods; they have been proven to improve linear growth of young children and proven more effective than CSB in supplementary feeding of moderately malnourished children (Nackers et al 2010). LNS in the form of the product 'Plumpy Doz' has been used in Somalia under operational research conditions. However with high prevalence of acute malnutrition and limited contacts with beneficiaries, evaluating and documenting impacts have proved difficult. Thus cost compared to nutritional benefit is as yet undetermined in the context.

**Outcome 2 Sustained availability of timely and quality nutrition information and operational research into effective responses to the causes of undernutrition**

Quality and timely nutrition information is essential to defining appropriate & feasible nutrition response options. Whilst more is known about the underlying causes of undernutrition throughout Somalia from KAPs 2007, the national micronutrient and Anthropometric Survey 2009, FSNAU data, less is known about the types of interventions that can impact on the problem, particularly in the Somali context. Operational research is therefore key to providing the evidence base on which appropriate programmes can be planned.

**Outcome 3 Increased appropriate knowledge, attitudes and practices regarding infant, young child and maternal nutrition**

KAPS 2007 and Micronutrient survey 2009 reveal the extent of inappropriate knowledge, attitudes and practices regarding infant, young child and maternal nutrition throughout Somalia. Rates of exclusive breastfeeding are extremely low at around 5% (National Micronutrient and Anthropometric Nutrition survey 2009). According to KAPS 2007, the practice of discarding colostrum is widespread. Infant formulas are vigorously promoted in a context of widespread poor water, sanitation and hygiene conditions. In contrast, the Lancet series on Maternal and Child Undernutrition 2008 identifies that exclusive breastfeeding in the first six months of life is particularly beneficial while infants who are not breastfed in the first month of life may be as much as 25 times more likely to die than infants who are exclusively breastfed. Continued breastfeeding is also very critical to improve feeding in children 6-23 months of age, as breast milk is an important source of energy and nutrients in the child's diet.

*Poor infant and young child feeding practices, including bottle-feeding in deplorable conditions is a predisposing factor to diarrhoea and malnutrition, FSNAU, Dec, 2009*

The Lancet series on Maternal and Child Undernutrition 2008 shows that both individual and group counselling have been demonstrated to extend the duration of exclusive breastfeeding. In Somalia individual counselling of mothers on appropriate breastfeeding practices and improving family and community understanding and support for early initiation and exclusive breastfeeding to six months are important. However, the other key priority is to address the vigorous advertising of breast milk substitutes by engaging with importers and traders. While the absence of a legislative framework is appreciated, it is important that a longer term consultative process on adoption of the International code for marketing of Breast milk substitutes is initiated.

As highlighted in the situation analysis young child feeding practices in Somalia tend to be inadequate, with only one in ten children being appropriately fed. Energy density of complementary feeds is low and diet diversity poor. A recent review of 42 efficacy trials and effectiveness studies on complementary feeding interventions concluded that carefully designed programmes that include pre-tested educational messages provided through multiple channels had an effect in improving complementary feeding. A greater impact was seen when animal-source foods were specifically promoted in the messages or when food supplements were provided as well. Educational strategies should focus on imparting the knowledge and develop skills to maximise use of locally-available, high-quality foods, as well as food safety, cultural beliefs and intra-family food distribution. As recommended in the review, this strategy aims to deliver nutrition counselling through multiple channels, individual, community and mass media integrated into the programmes that reach mothers and children ie nutrition programmes, schools, community based initiatives and MCH and outreach services. The integration of support for IYCF into the CMAM approach, piloted in Sierra Leone and Zimbabwe by UNICEF & Save the Children UK may be a useful model to adapt to Somalia.

**Outcome 4 Improved availability and coverage of micronutrients and de-worming interventions to the population**

Micronutrient malnutrition has wide-ranging effects on health, learning ability and productivity and has high social and public costs leading to reduced work capacity due to high rates of illness and disability. As highlighted in the situational analysis, prevalence of both nutritional anaemia and vitamin A deficiency in women and children in all three zones of Somalia are above WHO thresholds for the classification of a severe situation.

There are different approaches to preventing micronutrient malnutrition. The best way is to ensure the consumption of a balanced diet but this requires universal access to adequate food and appropriate dietary habits, neither of which reflect the current scenario in Somalia, and both of which are complex and long term issues to address. In the shorter term, micronutrient supplementation and food fortification and deworming have been proven both highly effective and low cost interventions. With their high benefit to cost ratio, these interventions have been identified as among the top ten cost-effective solutions to global challenges (Copenhagen Consensus 2008).

In Somalia, bi annual vitamin A supplementation and deworming are currently key components of child health days, multiple micronutrient supplementation for pregnant and lactating women is available through MCH. Activities identified in this strategy aim to strengthen these existing interventions and to develop new approaches to increase coverage through novel population based strategies eg through schools and nutrition programme beneficiaries.

Another novel approach identified in this strategy is the fortification of food, in particular cereal flours. Food fortification is able to deliver nutrients to the population without requiring changes in food consumption patterns. It is usually socially acceptable, requires no change in food habits, can produce nutritional benefits for the target population quickly and is a safe, cost-effective way of reaching large target populations (WHO FAO Guidelines on Food Fortification with Micronutrients 2006). Also food fortification can provide nutrients that are not obtainable in sufficient doses from local foods, such as folic acid for the prevention of birth defects. This new area for Somalia will require preliminary work before going to scale. With nearly half the population receiving humanitarian food assistance, the fortification of grains distributed through the general food ration is a priority. Furthermore as even in a good year, Somalia imports 60% of its cereal requirement, fortification of imported cereal flours presents an important vehicle for improving the micronutrient intake of a significant proportion of the population. Fortification of flour at the community level may be a useful approach in low access areas.

**Outcome 5 Nutrition is mainstreamed as a key component of health, WASH, livelihoods, food aid and education sectors**

This outcome reflects the multiple and overlapping causes of undernutrition in Somalia which require a multi sectoral response if longer term improvement in nutritional status, survival and development are to be achieved. Providing one intervention in isolation of others minimises its potential benefits and represents a missed opportunity of contact with the population. As existing structures and capacity in Somalia are weak and limited and access to and utilisation of services low, the integration and enhancement of nutrition activities within multi sector programmes is even more paramount. In health in particular, as stated in the World Bank paper, Repositioning Nutrition as Central to Development nutrition should be "included as a core function of services and not as an adjunct activity to be implemented by lower level health professionals or only when time permits".

Activities within this strategy are aimed at mainstreaming nutrition within government as well as non government structures. Increasing awareness within the line ministries of the importance of nutrition as a key determinant of health and development will be an important step to keeping nutrition on the agenda in Somalia in the longer term.

**Outcome 6 Improved capacity and means in country to deliver essential nutrition services**

The situational analysis highlights the low capacity and means in country to deliver essential nutrition services. The health system is weak and fragmented, qualified professionals have left the country or moved to the private sector. Nutrition capacity within the regional authorities is limited. Thus the need to build local capacity to respond in the short and longer term is undeniable. Ideally this would encompass all levels, all sectors, government and non government structures. The Lancet series on undernutrition highlights that "governments must build internal capacity dedicated to addressing undernutrition to achieve longer lasting changes". In the context of Somalia this is more challenging and thus key output of this strategy is to support the development of a local body responsible for addressing nutrition issues locally while government structures emerge and develop. Capacity development is not purely about training and organisation strengthening but also about building local ownership.

The development of a nutrition capacity development strategy which is linked to the UNTP plan for capacity development is an important step to identifying priorities and advocating for funding. Capacity development is needed not specifically in technical competencies but in cross cutting issues of work management, community mobilisation, team building, adopting an ethical approach, professional development. The aim is not to develop a dedicated body of highly specialised nutritionists but instead to develop relevant nutrition skills among all health workers and programmes staff from all sectors including community workers, agricultural extension workers, school teachers. Thus working with pre service training institutions for the incorporation of appropriate nutrition training modules into existing professional training curricula is a priority.

The development of regional training/mentoring cells is an innovative approach to overcome challenges of limited access and supervision capacity on the ground and high staff turn over, while creating an enabling environment for partners to operate effectively is for many organisations on the ground with very limited access to resources, an important first step.

**Annex 4 Proven Effective interventions for maternal and child malnutrition**
**(Taken from The Lancet Series on Maternal and Child Undernutrition Executive Summary January 2008)**

| Sufficient evidence for implementation in all 36 countries | Evidence for implementation in specific situational contexts |
|---|---|
| **Maternal and birth outcomes** | |
| Iron folate supplementation | Maternal supplements of balanced energy and protein |
| Maternal supplements of multiple micronutrients | Maternal iodine supplements |
| Maternal iodine through iodisation of salt | Maternal deworming in pregnancy |
| Maternal calcium supplementation | Intermittent preventive treatment for malaria |
| Interventions to reduce tobacco consumption or indoor air pollution | Insecticide-treated bednets |
| **Newborn babies** | |
| Promotion of breastfeeding (individual and group counselling) | Neonatal vitamin A supplementation |
| | Delayed cord clamping |
| **Infants and children** | |
| Promotion of breastfeeding (individual and group counselling) | Conditional cash transfer programmes (with nutrition education) |
| Behaviour change communication for improved complementary feeding* | |
| Zinc supplementation | Deworming |
| Zinc in the management of diarrhoea | Iron fortification and supplementation programmes |
| Vitamin A fortification or supplementation | Insecticide-treated bednets |
| Universal salt iodisation | |
| Handwashing or hygiene interventions | |
| Treatment of severe acute malnutrition | |

**Annex 5 Copenhagen Consensus 2008: results**

| RANK | SOLUTION |
|---|---|
| **1** | **Micronutrient supplements for children (vitamin A and zinc)** |
| **2** | The Doha development agenda |
| **3** | **Micronutrient fortification** |
| **4** | Expanded immunisation coverage for children |
| **5** | **Biofortification** |
| **6** | **Deworming and other nutrition programmes at school** |
| **7** | Lowering the price of schooling |
| **8** | Increase and improve girl's schooling |
| **9** | **Community based nutrition promotion** |
| **10** | Provide support for women's reproductive role |

(Ref Horton et al 2008)

**Annex 6 How Malnutrition affects achievement of MDGs**

| *Goal* | *Nutritional Effect* |
|---|---|
| Goal 1: Eradicate extreme poverty and hunger | Malnutrition erodes human capital through irreversible and intergenerational effects on cognitive and physical development |
| Goal 2: Achieve universal primary education | Malnutrition affects the chances that a child will go to school, stay in school and perform well |
| Goal 3: Promote gender equality and empower women | Antifemale biases in access to food, health, and care resources may result in malnutrition, possibly reducing women's access to assets. Addressing malnutrition empowers women more than men. |
| Goal 4: Reduce child mortality | Malnutrition is directly or indirectly associated with most child deaths and it is the main contributor to the burden of disease in the developing world |
| Goal 5: Improve maternal health | Maternal health is compromised by malnutrition which is associated with most major risk factors for maternal mortality. Maternal stunting and iron and iodine deficiencies particularly pose serious problems |
| Goal 6: Combat HIV/AIDS, malaria and other diseases | Malnutrition may increase risk of HIV transmission, compromise antiretroviral therapy and hasten onset of full-blown AIDS and premature death. It increases the chances of tuberculosis infection resulting in disease and also reduces malaria survival rates |

Source: World Bank paper: Repositioning Nutrition as Central to Development

# Key References


Bhutta ZA, Ahmed T, Black RE et al. Maternal and Child Undernutrition 3: What works? Interventions for maternal and child undernutrition and survival. *The Lancet Series,* Vol. 371, published online 17th January 2008

Collins S, Dent N, Binns P. Management of severe acute malnutrition in children. *Lancet* 2006; 368: 1992-2000

Dewey K, Adu-Afarwuah S. Review article: Systematic review of the efficacy and effectiveness of complementary feeding interventions in developing countries. *Maternal and Child Nutrition*, 2008, 4:24-85.

ENN, IFE Core Group, ISAC Integration of IYCF support into CMAM Facilitators Guide and Handouts. ENN October 2009

FSAU Somali Knowledge Attitude and Practices Study (KAPS) Infant and Young Child Feeding and Health Seeking Practices December 2007,

FSNAU Technical Series report No. V. 17 2008/09 Post *Deyr* Analysis

FSNAU Technical Series report No. VI. 25 Nutrition Situation Post *Gu* 2009

FSNAU Technical Series report No. VI. 30 Nutrition Situation Post *Deyr* 09/10

FSNAU Nutrition Trends in Somalia (2001-2008) A Meta analysis study report (DRAFT)

Horton S, Alderman H, Rivera JA, Copenhagen Consensus 2008 Challenge Paper: Hunger and Malnutrition, Copenhagen Consensus Center, May 2008

Ibrahim MM, Persson LA, Omar MM & Wall S. Breast feeding and the dietary habits of children in rural Somalia. *Acta Paediatrica* 1991; 81: 480-483

Nackers F, Broillet F, Oumarou D, Djibo A, Gaboulaud V, Guerrin PJ, Rusch B et al Effectiveness of ready-to-use therapeutic food compared to a corn/soy-blend-based pre-mix for the treatment of childhood moderate acute malnutrition in Niger. *J Trop Paed (2010) doi:10.1093/tropej/fmq019*

Navarro-Colorado C, Mason F and Shoham J (2008) Measuring the effectiveness of Supplementary Feeding Programmes in emergencies HPN ODI network paper number 63 September 2008

Perez-Exposito AB and Klein BP. Impact of fortified blended food aid products on nutritional status of infants and young children in developing countries. *Nutrition Reviews* Vol. 67(12):706–718

Rossi L and Davies A. Exploring Primary Health Care in Somalia: MCH Data 2007. UNICEF Somalia Support Centre Report 8

Sadler, K., Kerven, C., Calo, M., Manske, M. & Catley, A. (2009), Milk Matters: A literature review of pastoralist nutrition and programming responses. Feinstein International Centre, Tufts University and Save the Children. Addis Ababa.

Shrimpton, Roger, Cesar G. Victora, Mercedes de Onis, Rosângela Costa Lima, Monika Blössner, and Graeme Clugston. 2001. “The Worldwide Timing of Growth Faltering: Implications for Nutritional Interventions.” *Pediatrics* 107: e75.

UNICEF Essential Package of Health Services (EPHS), 2009 revision + annexes

UNICEF Somalia Multiple Indicator Cluster Survey (MICS) 2006

United Nations Transition Plan for Somalia 2008-2009

WHO/FAO Guidelines for Food Fortification with micronutrients November 2006

WHO UNFPA UNICEF Somalia Reproductive Health National Strategy and Action Plan 2009

WHO\UNICEF Initiative for Accelerated Young Child Survival 2008-2009

WFP Somalia Puntland Food Security and Vulnerability Assessment April 2007

WFP Somalia Somaliland Food Security and Vulnerability Assessment August 2008

World Bank Repositioning Nutrition as Central to Development, a strategy for large scale action, World Bank 2006, ISBN-10:0-8213-6399-9

Young H and Jaspers S (2006) The meaning and measurement of acute malnutrition in emergencies: A primer for decision makers. HPN ODI network paper number 56 November 2006

“Individual country nutrition strategies and programmes,
while drawing on international evidence of good practice,
must be country - ‘owned’ and built on
the country’s specific needs and capacities.”

**Scaling up nutrition (SUN) - A Framework for Action, Sept. 2010**