Comprehensive Africa Agriculture Development Programme (CAADP)

East and Central Africa Regional CAADP Nutrition Program Development Workshop

Nutrition Country Paper – Ethiopia

DRAFT

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

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

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

General sources used to produce this document

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

Sources	Information	Lien internet
CAADP	Signed Compact / Investment plans / Stocktaking documents / Technical Review reports if available	http://www.nepad-caadp.net/library-country-status-updates.php
DHS	DHS Indicators	http://www.measuredhs.com/Where-We-Work/Country-List.cfm
FANTA	Food and Nutrition technical assistance / select focus countries	http://www.fantaproject.org/
FAO	Nutrition Country Profiles	http://www.fao.org/ag/agn/nutrition/profiles_by_country_en.stm
	FAO Country profiles	http://www.fao.org/countries/
	FAO STAT country profiles	http://faostat.fao.org/site/666/default.aspx
	FAPDA – Food and Agriculture Policy Decision Analysis Tool	http://www.fao.org/tc/fapda-tool/Main.html
	MAFAP – Monitoring African Food and Agricultural Policies	http://www.fao.org/mafap/mafap-partner-countries/en/
OMS	Nutrition Landscape information system (NILS)	http://apps.who.int/nutrition/landscape/report.aspx
REACH	REACH multi-sectoral review of existing data on the nutrition situation, programmes and policies	*When available*
ReSAKKS	Regional Strategic Analysis and Knowledge Support System	http://www.resakss.org/
SUN	Progress Report from countries and their partners in the Movement to Scale Up Nutrition (SUN)	http://scalingupnutrition.org/resources-archive/progress-in-the-sun-movement
UNICEF	Nutrition Country Profiles	http://www.childinfo.org/profiles_974.htm
	MICS: Multiple Indicators Cluster Surveys	http://www.childinfo.org/mics_available.html
WFP	Food security reports	http://www.wfp.org/food-security/reports/search
National Sources	Key national policies / documents to be added Ethiopia child survival strategy, 2005, FMOH Ethiopian Welfare monitoring survey NBE Annual Report 2009/10 National food and nutrition strategy, 2002 EDHS, 2010	

I. Context–food and nutrition situation

General Indicators		*Sources/Year*
Population below international poverty line of US$1.25 per day	30%	Welfare survey
Under-five mortality rate (per 1,000 live births)	88	EDHS, 2010
Infant mortality rate (per 1,000 live births)	59	EDHS, 2010
Primary cause of under-five deaths - Rate of death due to: ⇨ Pneumonia ⇨ Malaria ⇨ Diarrhea	 28% 20% 20%	 Ethiopia child survival strategy, 2005, FMOH
Maternal mortality ratio-MMR	676	EDHS, 2010
Primary school net enrolment or attendance ratio	62%	Welfare survey
Primary school net enrolment -ratio of females/males	64/60	….
Agro-nutrition indicators		*Sources/Year*
Cultivable land area (ha)	51.3 million	MOA report
Access to improved drinking water in rural areas	65.8%	NBE Annual Report 2009/10
Access to improved sanitation in rural areas	80%	MOA
Food Availability		
Average dietary energy requirement (ADER)	2200 kcal	NFS strategy 2002
Dietary energy supply (DES)	1950 Kcal	FAO, 2006-08
Total protein share in DES	11,4%	FAO, 2005-07
Fat share in DES	20,7%	FAO, 2005-07
Food Consumption		
Average daily consumption of calories per person		
Calories from protein		
Calories from fat		
Average daily fruit consumption (excluding wine) (g)		
Average daily vegetable consumption (g)		

Geography, population & human development

Ethiopia is a land locked country found in east Africa, bordered on the west by the Sudan, the east by Somalia and Djibouti, the south by Kenya, and the northeast by Eritrea. It has several high mountains, the highest of which is Ras Dashan (4,620 m). The land area is 1,127,127 sq km with a total population of 88,000,000. The population growth rate is 2.4% with life expectancy 55.8. Ethiopia's HDI value for 2011 is 0.363 positioning the country at 174 out of 187. Between 2000 and 2011, Ethiopia's HDI value increased from 0.274 to 0.363 (average annual increase 2.6%) The positive and high growth in the agriculture sector contributed to the reduction of poverty both in income and food dimension. Poverty gap at national poverty line in 1995 was 12.9%. This has significantly reduced to 7.8% by 2010. The poverty head count ratio at national poverty line reduced from 45.5% to 29.6%, respectively. Similarly, the food poverty head count indices at the national level has declined from 42% in 1999/00 to 33.6% in 2010/11.

Economic Development

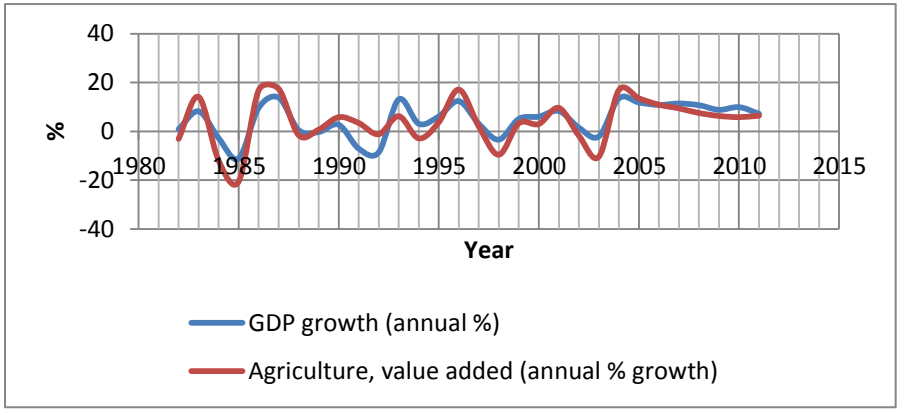
In Ethiopia the performance of the entire economy is inseparable from the agriculture sector. Since the economy is agrarian, its growth and decline is highly and positively associated with the performance of the agriculture sector. When the agriculture sector performs well, so does the overall economy. This is well captured by the GDP and AGDP[1] positive correlation (Figure 1). The figure shows the trend since the 1960s. The recent ten years trend (2002 – 2011), shows that the agriculture sector had experienced an average of about 8% growth rate[2].

As shown in Table 1, during the Plan for Accelerated and Sustainable Development to End Poverty (PASDEP) period, which covers the period of 2004/05 to 2009/10, the average annual growth rate of the agriculture sector has been about 8.4%. During this period, the overall economy growth was about 11%. This growth is attained concurrently with a shift from agriculture to services and industry. The economy is showing a gradual structural shift from agriculture to service and industries. The percent share of agriculture from GDP declined from 53% to 42% between 1995/6 and 2009/10 (Figure 2). The share of the service sector has increased from 34% to 46% during the same period.

Table 1: Average economic growth (%) and sectoral percent share from GDP during the PASDEP Period (2004/05 to 2009/10)
Source: MoFED, GTP 2010/11-2015/16, Vol.1, November 2010.

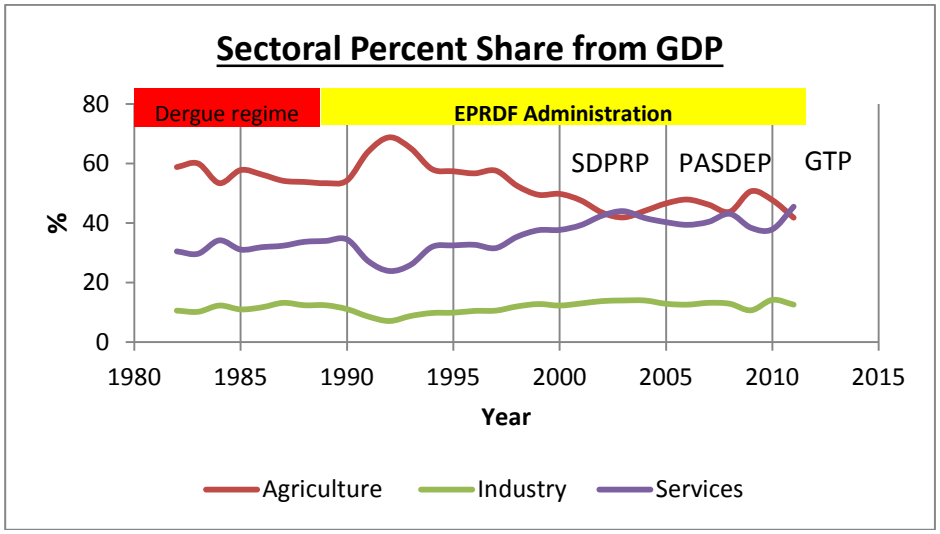
Sector	Growth%	Share from GDP %
Economy wide (real GDP)	11	100
Agriculture and allied	8.4	41.56
Industry	10	12.87
Services	14.3	45.57

Figure 1: Growth Trend: GDP Vs AGDP Source: MoFED and National Bank of Ethiopia



[1] The data sources are CSA, MoFED, NBE, EEPCo, ETC.
[2] For detail see Annex Table A1

Figure 2: Relative Share of GDP by Major Sectors
Source: MoFED and NBE Annual Reports, Various years



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

Ethiopia has undertaken a far reaching program of economic reform over the last decade. The economy has registered rapid growth rate averaging 11.0% per annum over the past ten years placing Ethiopia among the top performing economies in sub-Saharan Africa.

In 2005 Ethiopia began implementation of a more comprehensive approach to this critical issue under its food security program (FSP). A key element of FSP is the productive safety net program (PSNP) in which more predictable food and cash transfer is made to chronically food insecure households in exchange for labor on public work projects in particularly community based water shade rehabilitation. The program address chronic food insecurity while simultaneously requiring households to engage in sustainable productive activities and promoting market development by increasing household purchasing power.

The agricultural sector suffers from poor cultivation practices and frequent drought, but recent joint efforts by the Government of Ethiopia and donors have strengthened Ethiopia's agricultural resilience, contributing to a reduction in the number of Ethiopians threatened with starvation. The five-year Growth and Transformation Plan that Ethiopia unveiled in October 2010 presents a government-led effort to achieve the country's ambitious development goals.

Nearly 40% of the rural farm family (about 5 million households) cultivates the land less than half a hectare from where they produce only half of their annual food demand, moreover, they do not have enough purchasing power to buy from the market. Children who have come from such a family member are almost malnourished.

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

- *Rainfall irregularity*
- *Poor agriculture technology*
- *Limited cultivable land size*
- *Lack of food availability ,access and utilization*
- *Lack of dietary diversification*
- *Poor feeding practice for children and adult*
- *Low household income*

Agro-Nutrition Indicators (continued)		*Sources/Year*
Nutritional Anthropometry (WHO Child Growth Standards)		
Prevalence of stunting in children < 5 years of age	44%	DHS 2010
Prevalence of wasting in children < 5 years of age	10%	DHS 2010
Prevalence of underweight children < 5 years of age	29%	DHS 2010
% Women (15-49 years) with a BMI< 18.5 kg/m²	26.9%	DHS 2010
Prevalence of obesity BMI > 30 kg/m² - Children under 5 years old - Adults	NA 1%	DHS 2010

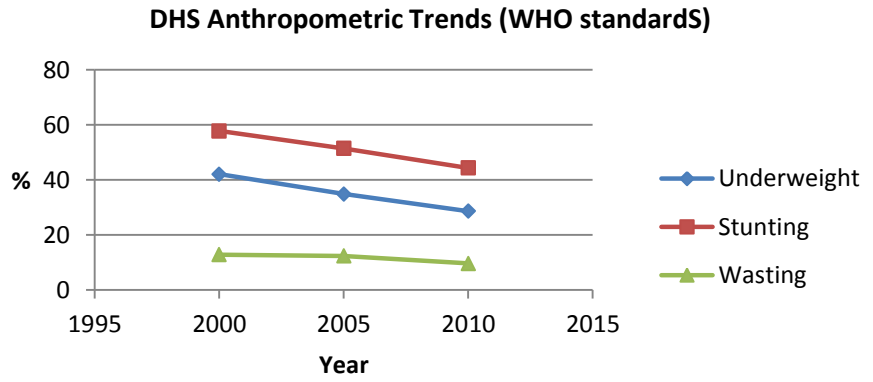
Nutritional Situation[i]

Ethiopia has shown some progress in reducing under nutrition in recent years. However, it is still a major public health problem and remains a serious concern and a drawback to its rapid economic development. Under nutrition has long history and remains one of the major and most pressing health problems in Ethiopia. Chronic under nutrition as measured by stunting and underweight, anemia, Iodine, zinc and vitamin A deficiency indicates major nutritional problems of Ethiopia. 57% of childhood deaths are associated with malnutrition.

Recent and structured studies done by CSA every five years since 2000 have shown that under-nutrition is still affecting a lot of under five years old children. The 2011 DHS data indicated that nationally**, 44% of children under the age of five are found to be stunted, 33% are underweight, and 12% are wasted**. WHO considers stunting and underweight prevalence rate of over 40 percent and 30 percent respectively as very high and a major public health problem. However, Ethiopia has been making progress towards improved food and nutrition security over the past decade. Consistent and comparable data of DHS since 2000 have shown that undernutrition has decreased by more than 10 percentage points between 2000 and 2010. Wasting, which measures the more immediate effect of malnutrition, seems to have fallen only slightly from around 12 percent in 2000 and 2005, to 9 percent in 2011. However, stunting of children under-five years of age is above the Sub-Saharan African (SSA) average prevalence rate of 42% and still a public health problem and an overarching development concern.

In general, the prevalence of under nutrition increases as the age of a child increases, with the highest prevalence in children age 24-35 months (57 percent for stunting and 34 percent under- weight) and lowest in children under age six months (10 percent for both). This shows that most children are affected by several causes of under nutrition in the first three years of life. Male children are slightly more likely to be stunted than female children (46 percent and 43 percent, respectively) reflecting a significant problem of long term under-nutrition. Rural children were nearly one and a half times more likely to be stunted (46 percent) than urban (32 percent) children. More than 1 out of 4 women in Ethiopia is affected by under-nutrition and anemia, a key contributing factor to high maternal and neonatal mortality as well as infant under-nutrition.

Fig. 3. Trends in Nutritional status of Children in Ethiopia



Regional variation in level of malnutrition

Children in rural areas are one and a half times more likely to be stunted (46 %) than those in urban areas (32 %). Regional variation in the prevalence of stunting in children is substantial. Stunting levels are somewhat above the national average in the Amhara (52 %), Tigray (51 %), Affar (50 %), and Benishangul-Gumuz (49 %) regions and are lowest in Addis Ababa and the Gambela region (22 and 27 %, respectively).

The mother's level of education generally has an inverse relationship with stunting levels. For example, children of mothers with more than secondary education are the least likely to be stunted (19 %), while children whose mothers have no education are the most likely to be stunted (47 %). A similar inverse relationship is observed between the household wealth index and the stunting levels of children; that is, a higher proportion of children in the lowest household wealth quintile are stunted (49 %) than of children in the highest wealth quintile (30 %).

Agro-nutrition indicators (continued)		*Sources/Year***Error! Bookmark not defined.**
Infant feeding by age		
Children (0-6 months) who are exclusively breastfed	52%	DHS 2011
Children (6-9 months) who are breastfed with complementary food	49%	DHS 2011
Children (9-11 months) who are using a bottle with a nipple (0-23 months)	12%	DHS 2011
Children (20-23 months) who are still breastfeeding	84%	DHS 2011
Coverage rates for micronutrient supplements		
% Households consuming adequately iodized salt (≥ 15ppm)	15.4	DHS 2011
Vitamin A supplementation coverage rate (6-59 months)	91%	FMOH Admin report
Vitamin A supplementation coverage rate (≤2 months postpartum)	NA	
Prevalence of anemia among pre-school children	44%	DHS 2011
Prevalence of anemia among pregnant women	22%	DHS 2011

Infant feeding

Infant and child feeding practices are major determinants of the risks of malnutrition. Breastfeeding is nearly universal in Ethiopia, with 96 percent of children being breastfed at some point. However, a very large proportion of women do not practice appropriate breast feeding and complementary feeding behavior for their children. **About half of babies do not receive breastfeeding within one hour of birth and only one in three children age 4-5 months is exclusively breastfed**. It is estimated in Ethiopia that there are about 50,000 infant deaths a year attributable to poor breastfeeding habits, that is to say 18% of all infant deaths every year.

Equally important, there are serious problems in the timing of complementary food introduction with a large majority of infants introduced to such foods too early or too late. **At 6-8 months of age, only one in two children is consuming solid or semisolid food**. Among breastfed children age 6-23 months, only 4 percent receive foods from at least four food groups, which shows consumption of diversified diet is a serious feeding problem for young children. One in two children was fed the minimum number of times or more. Much of inappropriate breastfeeding and complementary feeding behaviors are clearly due to lack of knowledge, rather than practical or financial constraints in practicing such behaviors.

Micronutrients

17% of Ethiopian women age 15-49 are anemic, with 13% having mild anemia, 3% having moderate anemia, and 1% having severe anemia. Anemia prevalence varies by urban and rural residence; a higher proportion of women in rural areas are anemic (18 %) than those in urban areas (11 %). Also, women in the Somali, Affar, and Dire Dawa regions have a relatively high prevalence of anemia (44 %, 35 %, and 29 %, respectively). Women in Addis Ababa and the SNNP and Tigray regions are at the other end of the range, with relatively low prevalence of anemia (9 %, 11 %, and 12 %, respectively). Women with no education are twice as likely to be anemic as women with more than secondary education (20 % and 10 %, respectively). Similarly, anemia prevalence decreases as wealth status increases.

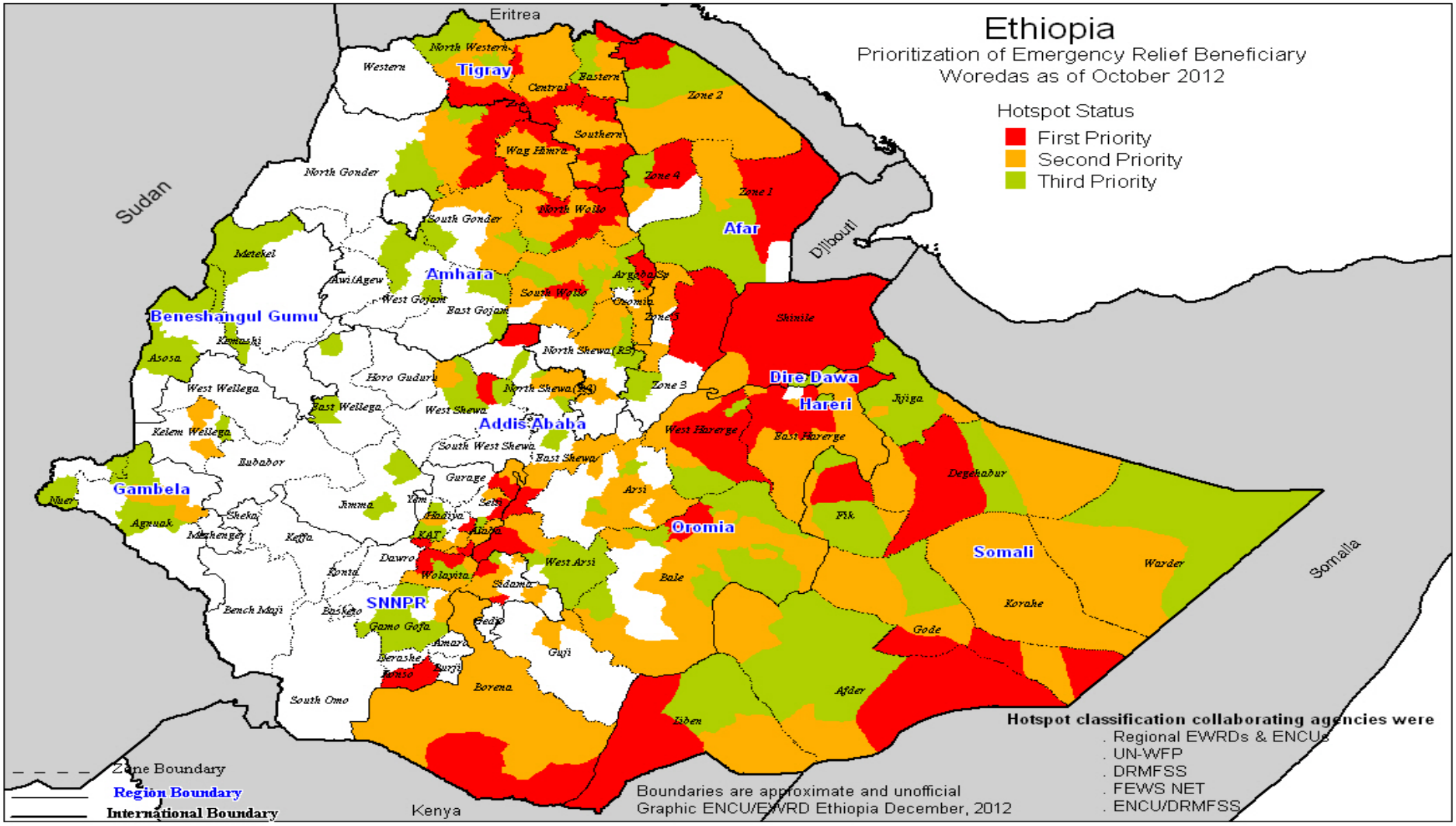
Main linkages between malnutrition and disease

Main linkages between malnutrition, care and sociocultural issues

- *Inappropriate feeding practices including breastfeeding and complementary feeding…*

Malnutrition from the perspective of food insecurity

Fig. 4. Distribution of food insecurity in Ethiopia



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

Strategy / Policy	*Reference Period*	*Objectives and main components*	*Budget / Donor*	*Stakeholders*	*Key points*	*Integration of Nutrition*
STRATEGIC FRAMEWORK						
Ethiopia Growth and Transformation Plan (GTP)	2010/11-2014/15	The GTP has the following Major Objectives: 1. Maintain at least an average read GDP growth rate of 11% and attain MDGs; 2. Expand and ensure the qualities of education and health services and achieve MDGs in the social sectors; 3. Establish suitable conditions for sustainable nation building through the creation of a stable democratic and developmental state; and 4. Ensure the sustainability of growth by realizing all the above objectives within a stable macroeconomic framework				
AGRICULTURE						
Agriculture Growth Program (AGP)	2010-2015	The Agriculture Growth Program (AGP) aims to increase agricultural productivity in a sustainable manner, increase market performance and profits, and promote value addition to agricultural products in selected targeted areas. AGP is capitalizing on the enormous agricultural productive growth potential found in Ethiopia through increased production, and reduction of dependency of food aid, vulnerability , poverty , food price and creates jobs encourage small scale farmers and increase income Promote agribusiness, commercialization and infrastructure development				
Ethiopian agriculture sector 10 year policy and investment framework	2010-2020	The development objectives aims to sustainably increase rural incomes and national food security through producing more selling more nurturing the environment eliminating hunger and protecting the vulnerable against shocks towards contributing Ethiopians achievement of middle income status by 2020.				

Strategy / Policy	*Reference Period*	*Objectives and main components*	*Budget / Donor*	*Stakeholders*	*Key points*	*Integration of Nutrition*
FOOD SECURITY						
Food Security Program (FSP)	2010-2014	The long-term Goal to which the Food Security Program (2010-2014) expects to make a substantial contribution is: "Food security for chronic and transitory food insecure households in rural Ethiopia achieved". The programme aims to put Chronic food insecure HHs (CFI)households on a trajectory of asset stabilisation first, then asset accumulation. That is, a series of inputs from the programme and from other development interventions makes households become food sufficient first, then sustainably food secure.				
Emergency nutrition intervention guideline	2004	To define basic concepts and criteria related to emergency nutritional interventions and to establish locally appropriate, internationally acceptable standards for general food rations and selective feeding programs as well as overall intervention management.		WFP/FAO/UNICEF		
National policy and strategy on disaster risk management	2009	The overall objective of the National Policy on Disaster Risk Management is to reduce risks and the impacts of disasters through the establishment of a comprehensive and integrated disaster risk management system within the context of sustainable development.				
NUTRITION						
National Nutrition Strategy (NNS)	2008/9	The key objective of this National Nutrition Strategy (NNS) is to ensure that all Ethiopians secure adequate nutritional status in a sustainable manner, which is an essential requirement for a healthy and productive life. **Specific objectives:** 1. To provide due attention to malnutrition vulnerable groups of society, particularly under five children, pregnant and lactating				

Strategy / Policy	*Reference Period*	*Objectives and main components*	*Budget / Donor*	*Stakeholders*	*Key points*	*Integration of Nutrition*
		women; 2. To ensure the citizens are free from malnutrition related health problems; 3. To protect the society from unhealthy dietary patterns and unhealthy lifestyle that may affect their health; and 4. To coordinate and support nutritional activities of all sectors, government, non-governmental organizations and individuals working to alleviate nutritional problems.				
National Nutrition Program (NNP)	2012-2015	Objective: reduce the magnitude of malnutrition; to coordinate, harmonies and scale up current nutrition interventions with a greater focus in community based and high impact interventions; and to harmonize government strategies and various donors programs. The NNP targets the most vulnerable i.e. under 5 year children, particularly those under 2 years as well as pregnant and lactating women and adolescents. It also gives priority to the rural population while recognizing that significant malnutrition exists in low income urban areas.				
HEALTH & SOCIAL PROTECTION						
Health sector development program IV	2010-2015	• *Improve access to health services* • *Improve community ownership* • *Maximise resource mobilisation and utilisation* • *Improve quality of health services* • *Improve public health emergency preparedness & response* • *Improve pharmaceutical supply and services* • *Improve regulatory system* • *Improve evidence-based decision making by harmonisation and alignment* • *Improve health infrastructure* • *Improve human capital and leadership*				

Strategy / Policy	*Reference Period*	*Objectives and main components*	*Budget / Donor*	*Stakeholders*	*Key points*	*Integration of Nutrition*
National Social Protection Policy	2012	(i) Protect poor and vulnerable individuals, households, and communities from the adverse effects of shocks and destitution; (ii) Increase the scope of social insurance; (iii) Increase access to equitable and quality health, education and social welfare services to build human capital thus breaking the intergenerational transmission of poverty; (iv) Guarantee a minimum level of employment for the long term unemployed and under-employed; (v) Enhance the social status and progressively realize the social and economic rights of the excluded and marginalized; (vi) Ensure the different levels of society are taking appropriate responsibility for the implementation of social protection policy.				

Institutional execution framework linked to food security and nutrition

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

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

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

Main technical and financial partners

Role, responsibilities, coordination...

- FA0/WFP/UNICEF/WHO
- FMI/WB/USAID/GAIN

Roles:

- Provide financial and technical support
- Build the capacity of the government

Disaster prevention/management structures

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

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

What global/regional initiatives is the country adhering to in order to promote food and nutrition security? Is it of any value to IP implementation?
What institutions exist at regional level that promote FNS and could be of value to IP implementation?

Analysis of on-going process within nutrition-linked regional and international initiatives *(Ex: Reach, SUN, CAADP…)*

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

Institutional framework & funding

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

The CAADP Ethiopia Study, July 2009 gave coverage to nutrition as one of the cross-cutting issues both in terms of technical and institutional aspects. For example this study pointed out that the availability and access to food is the responsibility of MoARD while the utilization and dietary health and care is that of the MOH. On the basis of this nutrition strategy has been drafted and revised about five times in the last two decades. During this time claims of ownership of nutrition programmes by different institutions specifically MoARD and MoH has contributed to prohibit effective implementation of designed strategies. Currently it seems this problem is getting a solution. The recent National Nutrition Strategy (NNS) issued by MoH,[1] which was based on the study coordinated by MoARD/UNICEF in 2005[1] indicates clearly that it is the MOH which will form and lead a national coordinating committee, and in turn this committee is expected to ensure the presence of integrated and wholestic nutrition programme designing and implementation at different levels of governments.

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

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

The latest NNS is a pragmatic document but still additional focus and efforts are needed to integrate adequately and appropriately the nutrition issues of pastoral and agro-pastoral (PAP) communities, the standardization and explicit nutritional values of the diverse crop and livestock products and by-products, and to adequately address the productivity effect of malnutrition on food insecurity.

Main food and agriculture programs and interventions being implemented to improve nutrition in the different sectors (health, agriculture, food security…)

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

It has been now almost 2 years since the country started implementing the first NNP. Since then nutrition programs have been scaled up larger coverage and many results have been achieved. Currently the government is revising the NNP to include accelerated stunting reduction activities and to align with the MDG. The following are some of the activities being underwent:

No	Actions	Status	Remarks
1	National Nutrition Program	Future activity	Baseline survey conducted and end line survey to be conducted in 2015
2	CBN implementation	Ongoing	Evaluation of the implementation of CBN is done moreover case study also was carried out to assess the implementation
3	Universal Salt Iodization(USI)	Ongoing	Regulation enforced, mandatory regulation is enacted
4	Food fortification and supplementation		National food fortification alliance is formed, training is scheduled to be started soon
5	Operational Research	Ongoing	Ethiopian Health and Nutrition Research Institute(EHNRI), the technical arm of the Ministry of Health, is responsible to conduct operational researches to support the implementation of NNP
5.1	Adaptation of CBN to pastoralist areas	Ongoing	Formative assessment was conducted, report writing is in progress which will be followed by manual preparation and training
5.2	Effective Modalities to Improve Pregnant Women Compliance to the Daily Prenatal Iron-Folic Acid (IFA) Supplementation	Ongoing	Phase III which is implementation of the project is launched. Purpose of the project is to reduce the prevalence maternal anemia by improving the coverage and maternal compliance to the daily IFA supplementation, develop strategies and techniques; and scale up
6	Food consumption survey	Completed	Report is in progress, planned to provide evidence based information to fortification program
7	Assessment of quality of the integrated Refresher Training (IRT)	Ongoing	Draft report is complete
8	Assessment of the quality of supervision/ Integrated Supportive Supervision (ISS)	Ongoing	by supervisors of Health Extension Workers Draft report is complete
9	National micronutrient survey	Future	Planned for Sept. 2013, the objective of the survey is to assess the national micronutrient status of the Ethiopia population specifically of iodine, iron, vitamin A, zinc, vitamin D, Vitamin B12 and folate

Food crops (mainly cereals & pulses) production has grown from 8.8 million metric tons in 1993 to 23 million metric tons in 2012, However, at the same time population has doubled reaching about 85 million. Currently a number of interventions are envisaged to be undertaken. Use of improved technologies mainly in the spheres of improved varieties of seeds, fertilizers, cultural practices as well as irrigation practices are given due importance. Promotions of animal health services are areas that are assumed to improve animal draught power. Milk production is as well planned to be increased through breed improvement practices. Agricultural research will also be geared towards food crop variety improvement mainly in the area of nutritional values. Rural based credit facilities and improvement of cultural practices are among the focal intervention areas.

Nutrition programs implemented in Ethiopia

- Community based nutrition
  - ✓ Monthly nutritional screening to under 2 children
  - ✓ Supplementation of iron folate to pregnant and lactating women reached 80% coverage
  - ✓ Managment of acute malnutrition (sever & moderate)
  - ✓ Zinc supplementation for diarrhea cases.
  - ✓ Supplementation of vitamin A & deworming tablets to under five childern every 6 months
  - ✓ Behaviour change communication on nutrition
  - ✓ Local production of complementary food
- Food fortification (initiated)
- Nutrition service to HIV/AIDS affected people.
- School health and nutrition program
  - ✓ School feeding program
  - ✓ School gardening
- Biofortification

Main population groups targeted & localisation

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

Nutrition programs targets age groups vital in reduction of stunting. These are adolescents, pregnant & lactating, 0-24 children & children underfive.

Monitoring & Evaluation mechanisms

Monthly report collected from village level health posts through health management information system (HMIS)

Tools	Indicators	Frequency
	Total poverty head count Major Food cops production in thousand tone Fruit and vegetable production in thousand tonne Productivities of root crop quintal/hectar Per capita calorie intake	
DHS	Level of stunting, underweight, wasting, anemia	5yrs
Micronutrient survey	Level of micronutrient deficiency in the country	5 yrs

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

- *Weak coordination body (the national nutrition coordination body)*
- *Inadequate capacity at each sector to support the national nutrition coordination body technically & financially*
- *Huge financial gap to implement the NNP*

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

The FMOH is mandated to house and manage the organizational and management structure of NNP. However, in order to have viable linkages and harmonization amongst the relevant sectors. The 2008 NNP implementation and coordination framework has a multi-sectoral implementation and coordination arrangements at policy and implementation level. The four-tired coordination mechanism is in line with the decentralized administrative structure of the government and considers the partners and academia.

In 2008/2009, a National Nutrition Coordination body (NNCB) and National Nutrition Technical Committee (NNTC) have been established at the Federal level to ensure effective coordination and linkages at the national level. However, the implementation of these activities were not strong as outlined in the NNP due to the change of structure in the MOH as NNP was designed based on the former government structure (MOH) at federal level; the NNCB had no accountability mechanism to higher decision making body of the government above the sectors such as MOFED AND/ OR Prime Minister Office and had no concrete plan of action; and there was no incentive for non-health sectors to coordinate for nutrition. The regional, woreda and community level coordination mechanisms were also similarly affected by this restructuring; the NNCB has not been effectively working; and NNP familiarization was not given due attention at lower levels.

In order to address the challenges of the existing multi-sectoral coordination and strengthen the linkages based on the lesson learnt during the last three years of NNP implementation, the revised NNP has included the role of responsible sectors in the NNP. A revised institutional arrangement for NNCB and NNTC and for overseeing nutrition in FMOH and key sectors is suggested. In addition, it articulates the human resource capacity building activities giving additional emphasis on other sectors. These actions will make sure that implementation of the NNP move in a harmonized way in all sectors at different levels, and particularly at the regional, woreda and community levels though identifying key linkage activities between nutrition specific interventions managed by the FMOH and nutrition sensitive programs in other sectors so that they are mutually supportive.

Institutional arrangement for multi-sectoral Nutrition Coordination and Linkages

The National Nutrition Coordination Body**,** which is the highest governing body responsible for leadership, policy decision and coordination of the National Nutrition Program amongst government sectors, partners, civil society organizations, academia and private sector, will continue to be the main coordination mechanism. However, the NNCB institutional arrangement will be revised to address the gaps based on the lesson learned over the last four years, experience from other countries and desk reviews.

Main management and technical capacities at the institutional level

A gap assessment was conducted by MOH in order to assess the situation for fortification. The report describes the following; Based on the study of the six selected agencies namely; Ministry of Health, Ministry of Trade, Ministry of industry, Ethiopian Health and Nutrition Research Institute (EHNRI), FMHACA and Ethiopian Standards Agency; all agencies have reported the lack of skilled professional, adequate information and awareness of the importance and impact of food fortification. It was also mentioned that though the agencies have defined mandate, they was some overlapping. Ethiopian Standard Agency has roles to coordinate technical meetings to adopt international standards; however there are no national standards developed for fortified products. It was observed that the agency adopt standards when only notified either by ISO or other international organizations. There is no much initiative taken by the agency to proactively assess the demand and determine standards.

The study also discusses that the Ministry of Industry has strong relation with food manufacturers and they are in a good position to convince and/or influence food processers to accept the new emerging technology and fortification program; as well as they can influence them to collaborate with them and other concerned bodies. It was also said that the Food, Medicine, Health Care Administration and Control Authority (FMHACA), the regulatory agency mandated to control and enforce the adequacy of food for human consumption has lots of gaps to support the implementation and enforcement of food fortification in the country; as this regulatory agency is the only one mandated to control the adequacy of food, with no doubt its capacity (adequately skilled man power, and equipped quality control laboratory for fortified food quality control of head quarter and its six branch offices) has the paramount importance. But FMHACA fail to exhibit the above all, it needs to be strengthened, as the authority is restructured and mandated to control food four years ago it is new for food related issues hence it lacks highly skilled professionals and laboratory equipments to control the safety and quality of food products.

During the gap assessment interview the interviewers of the agencies, Ministries, institute and Authority gap merely depend on the limitations in information, knowledge and skills as well as absence of qualified professionals in food fortification and food industry related experiences, financial and skilled professionals limitations to support/enforce /implement food fortification program in the country.

Definitions

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

Acronyms

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

[i] In 2006, reference norms for anthropometric measures have been modified : from NCHS references to WHO references. To compare data measured before and after 2006, we usually use NCHS references.