REPUBLIC OF MOZAMBIQUE

MULSTISECTORIAL PLAN FOR CHRONIC MALNUTRITION REDUCTION IN MOZAMBIQUE 2011 – 2014 (2020)

Maputo, July 2010

CONTENTS

PREFACE

Chronic malnutrition is recognized as the best indicator of quality of human capital of a country. In Mozambique, 44% of children suffer from stunting or low height for age, or one in every two children under 5 years of age can not achieve its growth potential physical, mental and cognitive development. The implications are immense, starting with the fact that chronic malnutrition is responsible for one third of deaths in children under five years. It is also responsible for irreversible damage to health throughout the life cycle, such as short stature, which leads to low production capacity and physical health; decreased cognitive function, resulting in lower academic performance, and increased risk of degenerative diseases like diabetes and obesity. Besides the high cost for the country, the high incidence of chronic malnutrition affects the reach of many international commitments to socio-economic development in Mozambique.

Chronic malnutrition is caused by malnutrition as the mother before and during pregnancy and lactation, and the child during the first two years of life. Therefore, efforts should be concentrated to reduce it in the following target groups: adolescent girls, pregnant and lactating women and children from 0-24 months of age.

The Government of Mozambique recognizes that chronic malnutrition is the main nutrition problem in the country, as highlighted in the National Meeting of Nutrition of the Ministry of Health in 2008 and the National seminar on Chronic Malnutrition in March 2010 and due to its potential negative impact on economic development and human population, there must be urgently addressed and nationally for its reduction, which must be considered a priority in the government's plans.

This Action Plan for the Reduction of Multi Chronic Malnutrition, prepared by various government sectors, in collaboration with its partners, offers a package of activities / interventions with priority strategic objectives and sectors that, over a period of 10 years, should contribute to a reduction in more than 20% of current prevalence rates of chronic malnutrition. The plan is not limited to addressing the problem of chronic malnutrition and measures for its prevention, but also considers the factors that limit the capacity of government institutions to implement it. The Plan includes an analysis of existing legal frameworks and necessary, intersectoral collaboration and coordination, financial and human resources as well as identifying gaps and future needs to ensure the commitment and capacity to implement it in a sustainable manner.
There is evidence of being able to significantly reduce chronic malnutrition in children less than two years of age in a period of 10-20 years, but for that to happen, it is urgent a strong commitment from various sectors in the allocation of resources to accelerate the progress already achieved in this area.

Maputo, July 2010
Prime Minister

DECLARATION OF COMMITMENT

For an accelerated response for the prevention of chronic malnutrition in Mozambique

We, the Mozambican Government, UN agencies, development partners and members of civil society and the private sector, meeting today, the 4th of March 2010, in the Joaquim Chissano Conference Centre at the national seminar on Chronic malnutrition, whose objective is to achieve a national consensus for a multisectoral action plan for the reduction of chronic malnutrition in Mozambique,

Recognizing that chronic malnutrition is the main problem affecting the nutrition Mozambican children and that its resolution requires a multisectoral approach,

Concerned that malnutrition is responsible for more than a third of infant mortality, thereby reaching the Millennium development goals and its negative impact on socio-economic development of family, community and by the end of the country,

Recalling and reaffirming the commitment during the World Food Summit, held in Rome in 1996, to reduce the number of undernourished people by 50% by the year 2015,

Recognizing that poverty reduction is a Government priority and that there is a strong link between poverty reduction, food insecurity and nutrition and chronic malnutrition,

Taking into account the opportunities that present themselves, notably: the national political engagement, and cost effective interventions based on scientific evidence, global initiatives and the involvement of national and international partners,

Recognizing that the right to adequate food is a fundamental human right,

We commit ourselves and strive to:

- Contribute to the implementation of actions to be defined in multisectoral action plan for the reduction of chronic malnutrition;
- Develop advocacy and training actions to raise awareness of the various sectors and the general public, about the problems of chronic malnutrition and actions reducing malnutrition accessible to everyone, thus facilitating the access to information, promoting behavior change and taking into account the aspect of gender;
- Strengthen the technical assistance of structures for the implementation of the plan at all levels and in different sectors linked to nutrition;
- Support the intersectoral coordination body in all its dimension so that through functional coordination mechanisms are implemented and effective action to improve the nutritional

status of women and children, ensuring complementarity and strengthening synergies between the different actors;

- Invest in information, knowledge management, surveillance systems, monitoring and evaluation of progress; and
- Investing/strengthen the training of human resources for the implementation of multi-sectoral action plan to reduce chronic malnutrition;
- Mobilize resources nationally and internationally to ensure the large-scale implementation of interventions and nutrition programs.

We, the Mozambican Government, UN agencies, development partners and members of civil society and the private sector, by this we approve the contents of this "**Declaration of commitment for an Accelerated Response for the reduction of Chronic Malnutrition in Mozambique".**

Maputo, 4 March 2010.

Paulo Ivo Garrido
Ministro da Saúde

Soares Nhaca
Ministro da Agricultura

Manuel Chang
Ministro das Finanças

Zeferino Martins
Ministro da Educação

Cadmiel Muthemba
Ministro das Obras Públicas e Habitações

Iolanda Cintura
Ministra da Mulher e Acção Social

António Fernando
Ministro da Indústria e Comércio

Aiuba Cuereneia
Ministro da Planificação e Desenvolvimento

Ndolamb Ngokwey
Coordenador Residente das Nações Unidas

Representante dos Parceiros de Desenvolvimento

Saquina Filimone Mucavele
Rede de Organizações para a Soberania Alimentar (ROSA)
Representante da Sociedade Civil

Salimo Abdula
Presidente da Confederação das Associações Económicas de Moçambique
Representante do Sector Privado

Representante dos Parceiros de Desenvolvimento

LIST OF ABBREVIATIONS AND ACRONYMS

ACS Community Health Agent
APE Elementary Versatile Agent
DPS Provincial Directorate of Health
HIV Human Immunodeficiency Virus
DHSI Demographic Health Survey
ISCISA Higher Institute of Sciences of Health
MICS Inquiry of Multiple Indicators
MISAU Ministry of Health
MMAS Ministry of Women and Social Action
MDG Millennium Development Goal
WHO World Health Organization
UNICEF United Nations International Children's Fund
ONG Non-governmental Organization
PARPA Action Plan for Poverty Reduction
ESAN Food Strategy and Nutritional Security
PASAN Action Plan for Food and Nutritional Security
RAI Fast Evaluation of the Impact
SAN Food and Nutritional Security
SETSAN Technical Secretariat for Food and Nutritional Security
AIDS Acquired Immunodeficiency Syndrome
SMI Maternal and Infantile Health
SSR Sexual and Reproductive Health
SWAp Wide Sectorial Approach
InSAN food Insecurity
US Sanitary Unit
WHO - World Health Organisation

EXECUTIVE SUMMARY

Forty-four percent of children in Mozambique stunt or suffer from malnutrition (MICS 2008). This anomaly occurs between baby conception period and two years of age, and cannot be rehabilitated afterwards. This precocious growth deformity increases infant mortality in the early stage of infancy and slow downs cognitive function of those who survive, hindering efforts to attain the Objectives of the Millennium Development (ODMs) 1, 2,3,4,5 and 6. USD 110 million per annum was estimated as the cost involved for not amending the above problems, just in terms of productivity loss, in 2004.

The main immediate causes of chronic malnutrition in Mozambique are caused by inadequate ingestion of nutrients, high rate of infection and premature pregnancy. The diets are dull, with micronutrients deficiencies, affecting the majority of the population. Malaria and gastro-intestinal parasites affect half of the population, and consequently the same number receiving pre-natal health care assistance have sexual transmitted diseases, apart from the fact that, half of these pregnant mothers are underage. In addition, only 40% of babies, under six months, are exclusively breast-fed.

The underlying causes of chronic malnutrition Outcome brought about by poor feeding (especially where and nutritional food access is limited), poverty and inadequate practices when it comes to female adolescents, mothers and children, as well as restricted access to health assistance, water and sanitation services. The basic causes of chronic malnutrition, apart from poverty, includes low level of education and gender inequality (the last being responsible for precocious marriages and pregnancies

The RAI-2009 do PARPA II (2006-2009) Impact Evaluation carried out a comprehensive study case on the chronic malnutrition in Mozambique and outline recommendations to step up progress for its reduction within the country, for it has been concluded that chronic malnutrition need to be solved urgently. For that reason, the High Commission of the United Nation held a meeting with The Minister of Health and other ministries' representatives in October 2009 to discuss issues concerning nutrition in the country, and to identify the steps to be taken. In the meeting, a National Conference has been proposed with the view to raise national awareness of Multi-sectorial Action plan to fight chronic malnutrition in Mozambique. This Seminar was held in March 2010 and culminated in an Underwritten Statement of Engagement between the Mozambican Government, the development associates, the civil society and the private sector for an accelerated reaction to prevent chronic malnutrition in Mozambique.

The present Project aims at reducing chronic malnutrition in children below 5 years from 44% in 2008 to 30% in 2015 and 20% in 2020. The project also takes into account factors that hinder potential government institutions the responsibility to implement it. The project focus on an urgent interventions package deal which will complement the activities included in other Projects and relevant Strategies**,** such as Healthy and Nutritional Food Policy (ESAN II) and the Integrated Plan for execution of MDGs 4 and 5, which are underway.

Key Points of the Action plan

The Project identify seven planned objectives, each with expected Outcomes and with a set of laid down activities.

STRATEGIC OBJECTIVE 1: Activities with impact on teenagers' nutrition status strengthened: Outcome 1.1: – monitor anaemia in adolescents aged (10-19), within and outside the school setting; Outcome 1.2: Reduction of precocious pregnancy amongst adolescents aged (10-19), Outcome 1.3: strengthened nutritional education in different training levels as part of school syllabuses, including education for adult syllabuses.

STRATEGIC OBJECTIVE No 2: Interventions with impact on productive, lactating and pregnant women's health and nutrition strengthened;

2.1. Outcome: Reduced deficiencies in micronutrients and anaemia before and during pregnancy and lactation. 2.2. Monitor infections before and during pregnancy and lactation. 2.3. Increase weight gain during pregnancy.

STRATEGIC OBJECTIVE No 3: Child-oriented nutrition activities in the first two years of birth strengthened

3.1. Outcome All mothers Breast-Feed their new-born babies exclusively in the first six months of life. 3.2. Outcome. All children from 6 to 24 months receive supplementary proper food. 3.3. Outcome. Deficiencies of micronutrients and anaemia reduced in all children from 6 to 24 months of age.

STRATEGIC OBJECTIVE No 4: Household-oriented activities to improve high nutrition food access and utilization strengthened.

Outcome 4.1. Locally produced foods with high nutritional value and utilized by the poorest families; Outcome 4.2.: Reinforced the capacity of the vulnerable family to the Food and Nutritional Insecurity (InSAN) for the processing and appropriate storage of the foods; Outcome 4.3. Ensure that vulnerable family to InSAN with access to support services and social protection,

pregnant and nursing mothers', adolescents and children between 6-24 months of age take enough and diversified food; Outcome 4.4. Supply and consumption of fortified foods increased in the communities, particularly the iodized salt; Outcome 4.5. Ensure basic sanitation for poorer family homes raising adolescent girls, and children under 2 years of age or living with pregnant and nursing mothers.

STRATEGIC OBJECTIVE No 5. Human Resources capacity in nutrition strengthened

Outcome 5.1. Responsible human resources qualified for nutrition at national, provincial and district level; Outcome 5.2. Advisors in healthy feeding and nutrition from health sector, food security and education.

STRATEGIC OBJECTIVE 6: Strengthen national capacity for advocacy, coordination, management and progressive implementation of the Multissectorial Action Plan for Chronic Malnutrition Reduction Outcome 6.1. Appoin**t** a group of Multi-sectorial coordination at national level; Outcome 6.2. Assign an executive Multi-sectorial group to administer of the implementation of the plan at national level; Outcome 6.3. Appoint an executive Multi-sectorial group to supervise the activities of monitoring and evaluation of the plan at national level. Outcome 6.4. Assign an executive Multi-sectorial group to manage the legal profession activities and social mobilization for the reduction of chronic malnutrition at national level, Outcome 6.5 Appoint an advisory group of Multi-sectorial coordination at provincial and district levels capable of coordinating the implementation of the plan, and of practising legal profession and social mobilization for the reduction of Chronic Malnutrition.

STRATEGIC OBJECTIVE No 7: Food and nutrition control system strengthened

Outcome 7.1. Proper Administration of Food and Nutritional Security's activities at different levels (national, provincial and district); Outcome 7.2. Make information available beforehand and disaggregated on SAN within the country**.**

Activities regarding objectives 5, 6 and 7 will be implemented at central or national levels as from the beginning of operationalization Plan. On the other hand, activities regarding the objectives 1, 2, 3, 4 will be implemented gradually in the selected districts until national covering is reached.

CHAPTER 1
I. INTRODUCTION AND BACKGROUND

In Mozambique, the chronic malnutrition that substantiates the flaw in growth in the first years of living (stunting), it is responsible for a third of the deaths in children less than five years of age.[1] Apart from being one of the main causes of deaths, the chronic malnutrition can bring irreversible damages to the health during the whole life cycle, such as: stunting that gives rise to weak working power and physique; decrease in the cognitive function, resulting in a poor school performance, and greater risks of degenerative diseases, such as diabetes and obesity.
To point out that Mozambique also undertook a responsibility of reducing the number of malnourished people to 50% by 2015 during the World Food Summit, which took place in Rome in 1996, and such commitment can be committed because of the dilemma that the country faces.
The chronic malnutrition is recognized as being the best indicator of the quality of the human capital[2] Besides the high cost for the nation, the high incidence of the chronic malnutrition commits the reach of many of the international commitments of development socio-economic in Mozambique. The costs of the chronic malnutrition have been estimated to 110 million dollars a year in 2004[3] and this amount can be very short of its real costs. Some authors esteemed that the productivity losses are between 2-3% of the Gross Domestic Product in Mozambique[4] in other words, between 300 and 500 million of annual dollars. If Chronic Malnutrition's problem is not eradicated, it can hinder the attainment and the success of the goals of Objectives of Development of Millennium (ODM), particularly the ODM 1, 2,3,4,5 and 6.
Lack of satisfactory results relating to reduction of chronic malnutrition has implication, not just in compromising the socio-economic development, but it also represents a failure for not making the human rights of the Mozambican progressively worthy, especially the Right to Proper Feeding and the Right to Health.

The Government of Mozambique recognizes that the chronic malnutrition is the main nutrition problem in the country, as it was highlighted in the National Meeting of Nutrition of the Ministry of Health, in 2008. With regard to evaluation of PARPA II, an analysis of the children's nutritional situation in Mozambique was made, with emphasis on chronic malnutrition, and conclusions drawn were that, due to the negative impact that stunting makes on the potential for economic and human development of the population, there should be an urgent approach and at national scale for the reduction of chronic malnutrition, and this should be defined as priority in the Government's plans.
In October of 2009, a mission of high level of the United Nations met with the Minister of the Health and representatives of other key ministries to discuss the situation of nutrition in Mozambique. In the meeting it was agreed a National Summit should be held with the view to reach national consensus and develop a plan of multi-sectorial action for the fight the chronic malnutrition in Mozambique.

An analysis of the commitment and capacity situation in the field of nutrition in the country was fulfilled as preparation of the national seminar, a task recommended by OMS for all countries with high prevalence of chronic malnutrition. Similarly, during the process of preparation of the present plan, a plan of interventions/actions, which contributes for the reduction of the chronic malnutrition in Mozambique, was developed. The main conclusions of these analyses will be presented later in this chapter.
Recommendations and specific interventions/actions that have direct and immediate impact in the reduction of the chronic malnutrition have been drawn from these evaluations.
In the preceding weeks the National Seminar, relevant sectors representatives met several times to reach a consensus on the barriers for the reduction of chronic malnutrition, and to make recommendations for the future. These recommendations were equally taken into account for the development of this Plan.
The National Seminar took place on 3 and 4 of March of 2010, in which representatives of the Government's different sectors, civil society, institutions of Cooperation and private sector were present, as well as the First Minister's participation and of the Ministers of the Health and of the Agriculture. The seminar resulted in the signature of a commitment declaration between the Government of Mozambique, the development partners, the civil society and the private sector for an accelerated answer for the reduction of the chronic malnutrition in Mozambique.

In the National Seminar it was approximated to consensus that the pillars of the interventions for the reduction of the chronic malnutrition are: 1) the alimentary and nutritional safety, 2) the woman's cares and of the child, 3) the access to the services of health, drinking water and sanitation of the middle and 4) the human resources for nutrition. Above these pillars, as an "effect", they were defined the institutional arrangement, the coordination and the leadership (what includes the financing, legal profession, communication, monitoring and the evaluation). Education and I intervention-cost them effective in the community they were defined as the base of the intervention pillars. The plane present takes in bill these elements and it introduces them in an integrated way.

The Multi-sectorial Action Plan of Reduction of the Chronic Malnutrition is not limited to approach the problem of the chronic malnutrition and the prevention measures but, it also considers the factors that you/they limit the capacity of the government institutions in his/her implementation. The Plan includes an analysis of the existing legal pictures and necessary, the collaboration and coordination inter-sectorial, the financial and human resources, as well as the identification of gaps and future needs to guarantee the commitment and the capacity of implementing the plan in a maintainable way.
The Plan focuses the priority activities for the reduction of the chronic malnutrition in different sectors, basing on -if in the presuppositions of some activities that have impact in the chronic malnutrition included in different sectorial plans, and the activities of Alimentary and Nutritional Safety's Strategy II (ESAN II) and PASAN II will be implemented parallel this Plan

II. SITUATION ANALYSIS

2.1 LEVELS, TRENDS AND KEY CAUSES OF CHRONIC MALNUTRITION

2.1.1 WHAT IS CHRONIC MALNUTRITION?

Chronic malnutrition is defined as stunting and differs from acute malnutrition defined as wasting. Acute malnutrition may come out at any lifetime and can be recovered. On the other hand, chronic malnutrition results from failure to treat acute malnutrition during the period between conception and the first two years of life. Because it is a key development stage of a child's body, resulting harm can not be treated after the first two year of a child's life. In Mozambique and other countries after the first two years of life, a child's growth should be in compliance with the WHO standard growth[5] and the adult's final height is determined by the height of a child at the age of two[6]. Adults who are born with low birthweight are 5 cm shorter than adults who are born with a normal height[7]. Therefore, chronic malnutrition or stunting results from a mother during pregnancy or lactation and a child during the first two years of life with half of growth problem taking place in inside the uterus and the other half after growth[8].

The length of a child and foetus between conception and the first two years of life is determined by two factors: 1) sequencing of a foetus growth, which is greatly defined during the first six months of pregnancy, and 2) child's nutrition status during the first two years of life[9]. Surveys undertaken in Guatemala have shown that the gain of weight by the mother during the second quarter has positive impact on the child's length at birth and weight gain during the last three months of pregnancy is important for the child's weight at birth[10]. Tanner (1978) has pointed out that height growth speed is greater during the fifth month of pregnancy and then reduces significantly whereas weight growth speed is greater during the eighth month of pregnancy and the first quarter of life[11]. In this framework, Tanner, highlighted that whilst the growth of a foetus during the last months of pregnancy is more sensitive to lack of energy or low quantity of food consumption by the mother, growth during the first six months is more sensitive to quality food or malnutrition deficiency.

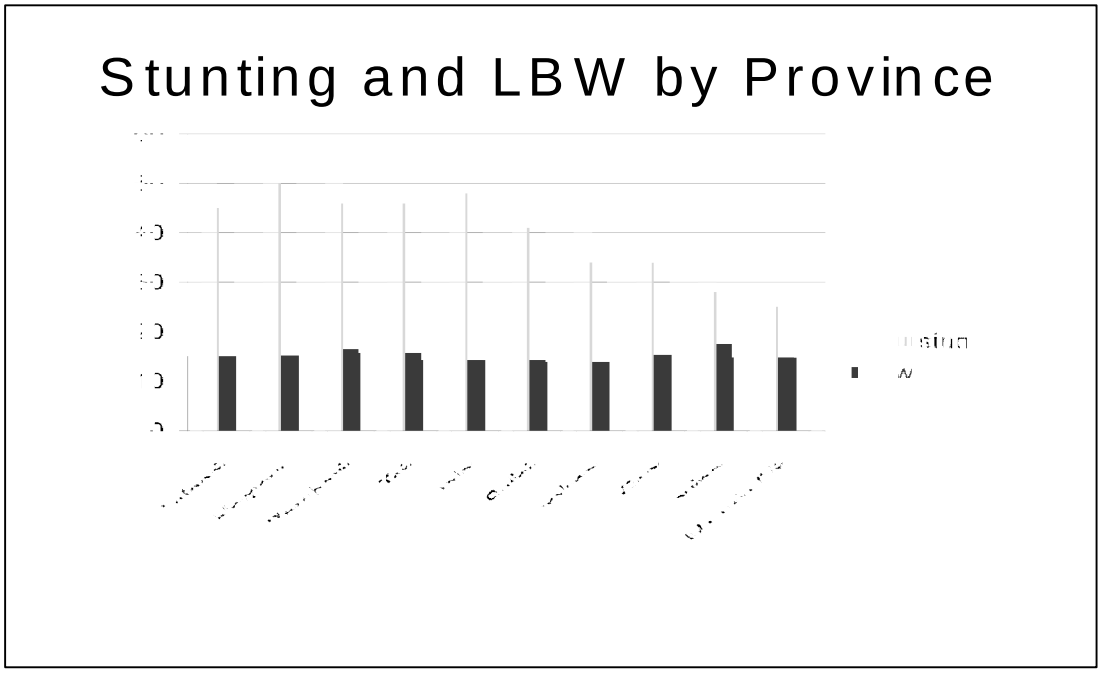
Chronic Malnutrition can be quickly eradicated among children less than two years of age. This is not a genetically inherited problem and all children have the same potential as far as growth is concerned[12]. Among Asian refugees population in the United States of America, for instance, children's (children below 2 years) stunting rates reduced at 46% between 1982 and 1989. During this short period of time, the height of Asian children under 2 years of age was the same as of those from the Latin-American descendent[13]. Many programs implemented in several countries have shown that it is possible to reduce chronic malnutrition within a decade[14] [15].

2.1.2 LEVELS AND TRENDS OF CHRONIC MALNUTRITION

Half of Mozambique population suffers the consequences of chronic malnutrition and the major concern is the fact that this situation has not improved significantly in the recent years. Chronic malnutrition prevalence among children who have not started going to school educed from 48% in 2003 to 44% in 2008[16]. High incidence of people with stunting above 40% is a serious public health problem according to World Health Organization (WHO) standards. Cabo Delgado and

Nampula have the highest country rate (> 50%) and Zambezia, Niassa, Tete and Manica have the intermediate (> 45%). Inhambane, Gaza, Maputo Província and Maputo Cidade (<40%) are the provinces with the lowest rates. Though the country has been experiencing has been experiencing economic growth during the past decade, concern is even major a given that no significant improvements have been demonstrated in terms of chronic malnutrition situation even among the richest households where stunting is estimated at 27%. This implies that to reduce chronic malnutrition rates, the Government needs to adopt measures that are beyond absolute poverty eradication.

According to the National Institute of Statistics, (INE), low birthweight was estimated at 11.3% at national level in 2008[17]. Based on the last Multiple Indicator Cluster Survey (MICS), estimates showed that 15 % of the new born have low birthweight countrywide in 2008, taking into account that 58% of the new born were weighed. There is usually a strong linkage between stunting and low birthweight, i.e., when chronic malnutrition is higher so is low birthweight (weight below 2.500 Kg)[18.] However, this linkage is non-existent in Mozambique at provincial level as shown in the Figure below if 2008 MICS results are applied. Whilst chronic malnutrition is higher in Northern provinces than in southern provinces, low birthweight rates are similar across all the provinces.

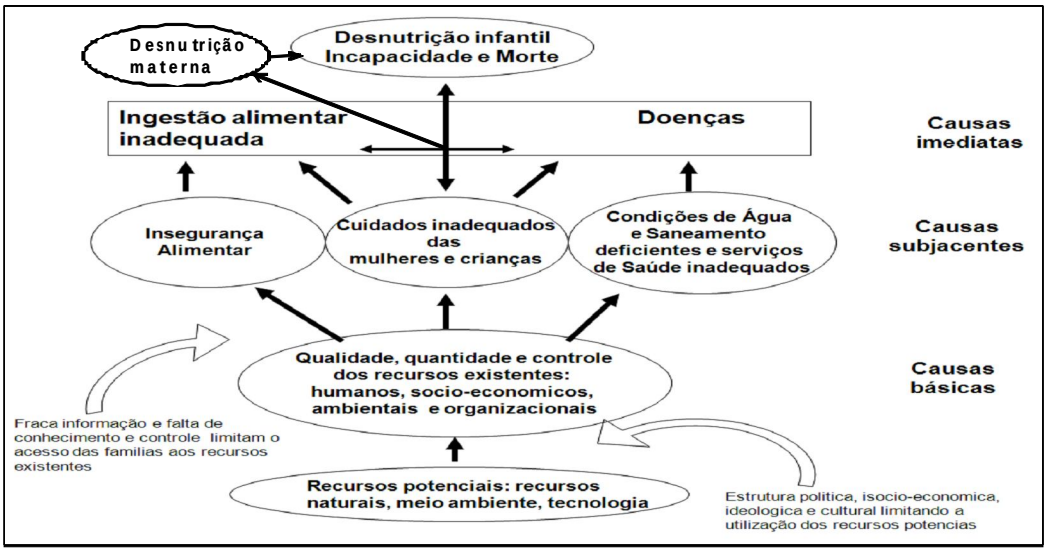


This paradox can be explained in various ways: the cause for low birthweight and/or chronic malnutrition varies from province to province. Low birthweight may result from insufficient growth in the uterus or premature growth. Results from a longitudinal survey in Maputo, for

example, among pregnant women found out that 16.2% of children had been born with low birthweight of which 15.4% had been premature and 9.7% small for gestation[19]. Premature delivery is the main cause of antenatal mortality in Mozambique[20]. Main causes of premature delivery are infections[21], early pregnancy[22], micronutrients deficiencies with iron[23], for instance and growth failure in the uterus is related to lack of macronutrients.
In short, it can be drawn that chronic malnutrition affects half of Mozambique population and that levels are higher in Northern provinces than in southern provinces. Low birthweight rates are the same in all country provinces. The lack of strong linkage between low birthweight and chronic malnutrition in provinces means that the linkage among food conditions, the mother's health and chronic malnutrition is the same in all country provinces. In sumary, pode-se concluir que a Chronic Malnutrition afecta metade da população.

2.1.3. MAIN CAUSES OF CHRONIC MALNUTRITION

Causes of malnutrition for both mother and child are visible at different levels, including immediate causes at individual level and underlying causes at household and community level as shown below based on the conceptual framework originally proposed by UNICEF.



As Chronic Malnutrition results from deficiency growth between conception and the first two years of age, Chronic Malnutrition causes analysis should consider the mother's nutrition status prior and during pregnancy and during the first two yeas of age. At immediate level, malnutrition can be caused by inadequate ingestion of food or occurrence of infections.
At underlying level, three causes exist namely: food insecurity, lack of hygiene and health services as well as sanitation and adequate maternal and child care. Each underlying causes is essential, but it is not sufficient by itself. Food security is an important element to ensure good

nutritional status and is defined as physical and economic access to sufficient food in terms of quality and quantity socially and culturally acceptable. Nutritional Security is a result of good health, healthy environment and good care practices with mothers and children. In the household context there may be food security while family members do enjoy nutritional security. Therefore food security is a necessary condition but not sufficient for nutrition security. Basis causes are found in the society as a whole and reflect potential available resources such as natural, technological as well as political structure and cultural identity.

2.1.3.1. THE IMMEDIATE CAUSES

Inadequate intake of nutrients is a serious problem in Mozambique. There are no nationally representative studies about the appropriateness of nutrient intake by people. However, the consumption of food in quantity, or calorie intake, seems to be satisfactory, because according to the IDS 2003, while only 9% of mothers had excessive thinness (a body mass index (BMI) of less than 18.5 kg/m2), indicating a severe malnutrition, 12% were above average weight (BMI > 25 kg/m2), indicating a probable predisposition to obesity. On the other hand, according to the MICS 2008, just 4% of preschool children showed acute malnutrition (insufficient weight to height), percentage that lies within the limits considered normal by who. The quality of the diet is a problem in Mozambique and micronutrient intake is fragile. Anemia is a shortage prevailing in Mozambique, nutritional condition caused by iron deficiency but is associated with the parasite infections that cause loss of blood. This disease is also caused by a deficiency of other nutrients such as folic acid and vitamin A[24]. The only representative survey about maternal anaemia in Mozambique shows that the prevalence of vitamin a deficiency and anemia in mothers of children under 5 years was 11% and 48% respectively[25]. Studies of literature of groups of women from different geographical areas suggest that 40 to 50% of women of childbearing age are anaemic[26] [27].

In 2002, approximately 74% of children fewer than 5 years in Mozambique were anaemic, with higher prevalence and severity in children under 24 months. The same study shows that 69% of children (6 to 59 months) had vitamin a deficiency; these 14% had severe disability and 55% moderate deficiency[28]. There is also evidence that indicate that the quality of the diet of mothers and their children is poor in severalprovinces of the country [29] and that a large proportion of the population does not have a varied diet.

Although the diet to provide the energy needed, this is low in fat and protein, as well as micronutrients such as iron[30]. Iodine deficiency is endemic in the country, and it is estimated that 30% of women of childbearing age and more than half of school-age population (68%), suffering from iodine deficiency[31].

In relation to the quality of diet, a study conducted in Zambézia province showed that the quality of the diet of mothers and their children is poor [32] and that a large proportion of the population does not have a varied diet. Although, the diet provides the energy needed, this is low in fat and protein, as well as micronutrients such as iron[33]. The study measured the diversity of the diet of 245 children between 2-5 years of age who have not received any kind of intervention. A variety of diet considered excellent was defined with one containing nine food groups. The study results

showed that the average number of groups of foods consumed by children was 3.4 (in nine groups of foods) what is extremely low [34].

New evidence suggests that if the mother's diet quality is improved during pregnancy, you might have a beneficial effect on birthweight. In India, the consumption of foods rich in micronutrients (dairy, vegetable, green leaves and fruit) during pregnancy and folate levels in blood red blood cells to 7 months of pregnancy were associated with the size of the child at birth, even if there were no association with the adequacy of energy intake or proteins[35]. The use of iodized salt in Asian countries is associated with an increase in birth weight and increased weight for children over age[36]. In Indonesia, the lack of use of iodized salt is associated with a high prevalence of malnutrition and mortality in children under 5 years[37].

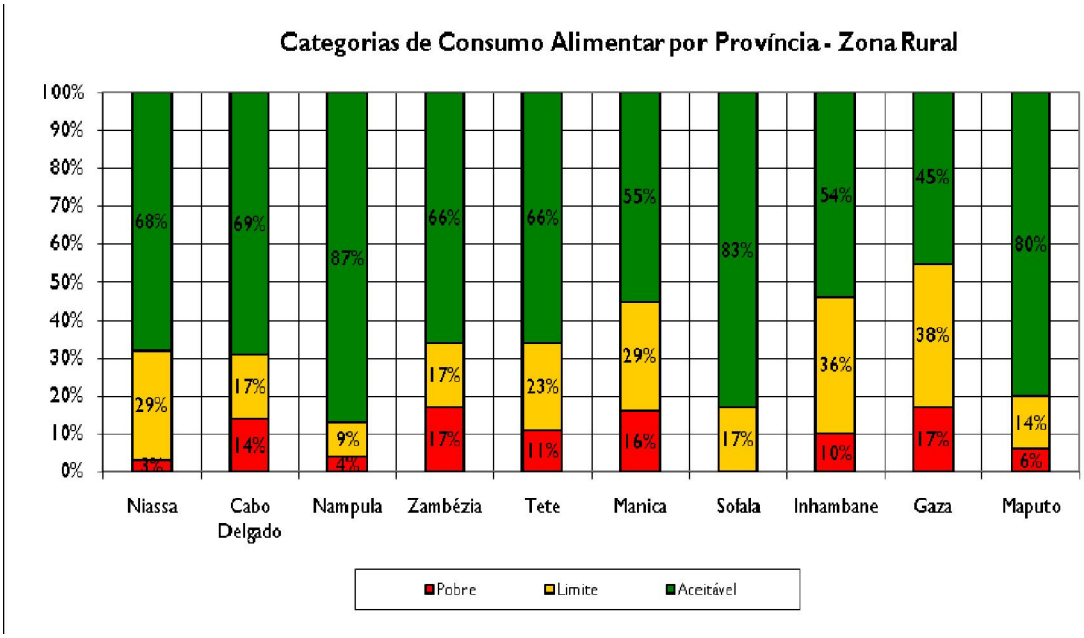
A study in Vietnam found that the use of supplements of multimicronutrientes instead of iron and folic acid during pregnancy has produced an increase of 100g of the average of birthweight and a 30% reduction in the rates of short stature in children with two years of age [38]. The infections that cause malnutrition in the immediate level of the individual also affect the vast majority of the population and may be the cause of chronic malnutrition in Mozambique. Among the relevant target groups for chronic malnutrition, it is estimated that by 2010, 16% of women of reproductive age (15-49 years) are seropositive for HIV/AIDS[39]. Several studies show that half of pregnant women facing antenatal consultations have sexually transmitted INFECTIONS (STIS)[40].

The prevalence of syphilis is between 5 and 15%[41]. According to the Ministry of Health[42], malaria is the main reason of the outer query (44%) and internment in Pediatrics (57%), and a nationwide study found a prevalence of 58.9% of malaria in children[43]. The prevalence of fever in children under five years, which is used by approximation to determine the occurrence of malaria, was 24% at national level, under the MICS 2008[44]. Gastrointestinal parasites also afflict half of the population, with 47% with schistosoma haematobium and 53% with soil transmitted helminthiasis[45]. It is believed that the incidence of these diseases is the chronic malnutrition in Mozambique[46]. More than half of the population presents at least one of the immediate causes of malnutrition, and presumed inadequate intake of nutrients and/or infections represent one of the main causes of malnutrition. This is worrisome because there is a synergy between infection and inadequate intake of nutrients, which causes the combined effect of two, is greater still[47].

2.1.2.2. THE UNDERLYING CAUSES

Food security at household level seems to be improving significantly in the last decade. In last the two decades staple food production and availability, particularly maize, cassava and beans increased considerably, leading to a reduction of foreign food aid.

However, diet quality is extremely poor. The calculation of food uptake index indicates that the consumption of food and diet diversification are inadequate in 31% of households in rural areas and 23% of peri-urban. Food diet composition differs between the north, centre and south of the country as shown in the figure below[48].



Diet adequacy is even worse in Gaza, Manica and Inhambane (< 45% of households with an inadequate diet), and better in Maputo, Sofala and Nampula (< 20% of households with an inadequate diet).

However, food consumption adequacy at household level has little relation with Chronic Malnutrition that is precarious in the provinces with bigger food consumption, for example, in Cabo Delgado and Nampula. It is important to mention that a higher consumption food may refer to a greater total consumption of calories and not necessarily a varied diet, but more importantly the household consumption do not necessarily reflect, the consumption of child under 5 years, since inappropriate dietary practices and lack of knowledge on the part of caregivers cause food consumption and the child's diet are inadequate, even when the rest of the family has a proper diet.

About 70% of the Mozambican population lives in rural where agriculture is the main source of income[49]. Family sector is responsible for the great part of agricultural production, covering 97% of the 5 million hectares currently cultivated. In Mozambique, agriculture is stills characterized f by poor use of improved technologies. Therefore, only 5% of producers, of 3, 3 million existing agricultural explorations in the Country, use improved seeds and fertilisers. Animal traction use is at 12%. With more investment in the agricultural sector, the perspectives for improving food production it is really promising.

Even if perspectives to reduce food insecurity are good at national level, many people continue to

have a very low diversified diet. Despite providing needed energy, it is poor in fat, proteins and micronutrients. It is estimated that 35% of households are in a situation of chronic food insecurity, i.e., the majority of population is more vulnerable to natural shocks[50]. Moderate food insecurity is regular in some parts of Mozambique with some areas affected periodically by foods and drought. Therefore, about half million inhabitants are affected by these natural disaster and need humanitarian aid.

Child care seems to be another underlying cause that contributes to Chronic Malnutrition Feeding of children during the first two years of life still is still far beyond the ideal. According to MICS 2008, about 2/3 of the new-born were breastfed under the recommended period (in the first hour after birth) and about 90% were breastfed in the first day of life. However, only 37% benefited from exclusive breastfeeding during the first six months of life, as it is recommended by WHO. Maternal breastfeeding reduced from 22 months in 2003 to 18 months in 2008 (being 19 months rural areas and 18 in the urban areas), which is far below from the recommendation of 24 months or more. Regarding **complementary feeding**, MICS Results have shown that 64% of children between 6-8 months had received at least two meals/dayly and only 37% of children between 9-11 months had received at least three meals/dayly.
This is the minimum required daily frequency; however, the recommendations of an ideal backdrop for Mozambique indicate that children from 6-9 months need at least three main meals and two snacks during the day in support of breastfeeding.
Only 47% of children who had had diarrea had received therapy from verbal rehidration and had continued to feed themselves normally. Hygiene in complementary food preparation is still leaves a lot to be desired and it is necessary that personal hygiene related issues are reinforced in education.

Mother care is also beyond the standards because more than half of married women prior to the age of 18, with 60% in rural areas[51]. Figures from 2003 HDS show that 40% of women already had children prior to the age of 19. Pregnancy among girls below 18 years has major risks in term of health for both mother and the child to be born[52]. In these cases the likelihood for complications during delivery and the risk of premature birth. Babies conceived by mothers less than 18 year weigh, on average, lesser than 200g at birth given that mother's growth is more prioritized than that of the foetus[53]. This competition between them is an immediate cause of Chronic Malnutrition, resulting from premature pregnancy. Evidences exist showing that between births is associated to Chronic Malnutrition[54]. It is likely that premature pregnancy and shorter spacing between births is the cause of Chronic Malnutrition in Mozambique.

Access to health and sanitation services has been improving, but it is important that emphasis is given to actions to extend the coverage in the country. Health services coverage increased from 45% in 2003 to 54% in 2007, but only 36% of the population have access to health care services in a distance that takes them 30 minutes from their houses. According to figures from MICS 2008, coverage of births with the assistance from qualified health staff has been improving, having increased from 44% in 1993 to 48% in 1997 and 55% in 2008. However, access to water

and sanitation continues to be serious problem. Less than half (48%) of households had **access to clean drinking water** in 2008, with only 34% of rural households comparatively to 77% of urban households. It is even a major concern that only 19% of household countrywide have access to **safe sanitation**, with 34% of the urban families in comparatively to only 6% of the rural families. A great ratio of the population still defecates out of latrines.

On the underlying causes it can be concluded, therefore, that food security situation, although it is better than the past ten years in terms of quantities, its quality remains precarious. The care of mother and child are also desirable, falls far short of being a teen pregnancy, the lack of exclusive breastfeeding in the first six months and an appropriate complementary feeding the main constraints.
Early pregnancy causes competition in terms of growth between the mother's growth and that of the foetus, making it an immediate cause of malnutrition. Despite improved health services, access to clean water and sanitation is still concerned.

2.1.2. 3. BASIC CAUSES

Among the **basic causes,** poverty is the top problem, despite having reduced significantly in recent years. The percentage of Mozambicans living below the poverty line reduced from 69% between 1996/97 to 54% between 2002/03 and it is projected that it will be at 45% in 2009/10. However, it is important to point out that the minimum salary has not been enough to ensure basic food basket for years leading to insufficient access to food both in quality and quantity so that population can have a balanced diet. Changes in the cost of the basic basket are related to the variation of prices of some staple products. The impact of these variations in prices varies among districts, culminating, inevitably, in changes in food practices and it is reflected on the low nutrition value.

Lack of access to education is another important factor that it does not contribute to reduction of Chronic Malnutrition in Mozambique. Education levels are very low despite significant improvements. School enrolment for the first elementary primary education reached 95.5% nationwide, a significant increase compared to 2003 (69, 4%). According to the most recent data, adult education increased from 46.4% in 2003 to 48.1% in 2005. In terms of gender, women education rate is at 33.3% and for men it is at 66.7%. Cultural beliefs and traditions also play a role on the basic causes, with some affecting in positive way and other negatively. Between the negative aspects of traditions, perhaps the most important for Chronic Malnutrition, are early or premature marriages. Although is in condemned under law (Article 30 of the Law of Family condemns marriage prior to 18), premature marriages are still rampant in rural areas where girls are forced out of schools. More than half of women are married before the age of 18, being 60% in rural areas[55] and once they are married their husband do not allow them back to school. Premature marriages rates continue to increase. In 2004, 21% of girls had been married at the age of fifteen, causing an increased number of premature pregnancies (24% of women between 15 and 19 already have two children already). The same age group includes 13.4% of all pregnant women. Most of these pregnancies are unwanted[56].

Several studies carried out in Mozambique analyzed the determinants of Chronic Malnutrition. Key causes are related to the level of education of the mothers and child care; with socio-economic factors as the mother's employment; with water quality and sanitation; and with health services quality. The same analysis was carried out with data from MICS 2008 where it was also noted that education of the mother, the quality of water and sanitation and the duration of maternal breastfeeding are the factors that had contributed to Chronic Malnutrition among children less than five years. These studies of figures associations do not prove cause, but evidences have basis as it was shown in Brazil, where prevalence of Chronic Malnutrition among children below five decreased from 37% in 1974 to 7% in 2006, and 2/3 of the decline can be attributed to four factors: improved access for continued care of mother and child's health; improved access to education and the information for girls and women; improved coverage in terms of sanitation services and water supply and household purchasing power[57].

In short, we can conclude that the key is among the basic causes of Chronic Malnutrition, poverty, lack of education and gender problems.
While the resolution of immediate causes of Chronic Malnutrition in the population as a whole requires great effort, the resolution of the basic and underlying causes though cost-effective, will take many decades. On the other hand, the resolution of underlying and immediate causes among pregnant mothers and children under five years of age is urgent and necessary for drastic reduction of Chronic Malnutrition. Failure to make efforts in short-term entails higher costs than necessary and available interventions costs. The most ideal is that both measures be taken at the same time on immediate and underlying causes.

3.0 CURRENT SITUATION AND COVERAGE INTERVENTIONS

This topic was developed from a mapping of the interventions with impact in the reduction of Chronic Malnutrition in Mozambique, where activities under implementation by different sectors with interventions in the area of nutrition and other related areas have been identified, including multilateral activities of NGOs, national and international and organizations. The information collected is about existing activities from January 2009 to May 2010.

3.1 KEY SECTOR INTERVENTIONS

3.1.1. HEALTH SECTOR

Health access coverage

A great challenge exists for the reduction of Chronic Malnutrition in Mozambique and poor access of Mozambican to health sector. As previously discussed, only 36% of population have access to health care in a distance taking 30 minutes from their houses. In some districts, each Health Unit takes care of between 15.000 and 20.000 people. This fact is quite frequent in Nampula and Zambezia, where the majority of the districts have only 1 Health Unit for 10.000 to

15,000 inhabitants and in other districts it has only 1 Health Unit for 20.000 inhabitants. Difficulties in access to health care are also found in Tete, Cabo Delgado and Inhambane where some districts have 1 Health Unit for about 5.000 to 10,000 inhabitants [see map 1].

Nutritional education

It is part of the protocol of the US to provide nutritional education to pregnant and lactating women, including education on exclusive maternal breastfeeding, complementary feeding, and balanced diet balanced good personal hygiene practices and food. Promotion of exclusive maternal breastfeeding during the six months of life is a key intervention to reduce Chronic Malnutrition. In 2009, the Ministry of Health, in collaboration with partners, initiated the implementation of a Communication and Social Mobilization Plan for the Promotion, Protection and Support to Maternal Breastfeeding in Mozambique.

The Ministry of Health and several Non Government Organizations have activities related to nutrition education, involving different models, based on the positive influence that mothers have for behaviour change in communities designated "mother groups" "lead mothers", "support group", "animators" or "model mothers".

Creation of these groups aims at training mothers with children fewer than 5 on basic nutrition principles (food security and nutrition education) and good practices to replicate them to other mothers from the communities. Concrete evidences of the impact of this activity in the reduction of the Chronic Malnutrition exist [See Good Practices 1]. Another activity that has impact with positive evidences is the use of community theather that influences behaviour change in communities through engagement in sexual and reproductive health, health and nutrition well practices [See Good Practices 2].

Intervention coverage

Although no data exist to evaluate the impact of the activities in the past years, MICS 2008 shows that the percentage of children under 6 months of age who received exclusive maternal breastfeeding increased from 30% in 2003 to 37% in 2008. Rates are lower in the provinces of Tete (24%), Cabo Delgado (18.2%) and Manica (34%) [See MAP 10].

Between 2007 and 2009, MISAU undertook some activities to promote consumption of high nutrition food. As it s shown in table 3 in annex, the number of lectures and sessions food preparation demonstrations between 2007 and 2009 increased in many provinces. However, according to Annual Report of MISAU 2009, discrepancy exists among the provinces regarding the actual number of food preparation demonstrations and lectures performed [See table 3].

Geographic presence of organizations with activities related to nutritional education

Nampula, Zambezia, Manica and Sofala are the provinces with higher presence of organizations with activities elated to nutritional education where many districts have between 3 and 4 actors. In

Maputo, Inhambane, Gaza and Tete, many districts have between 1 and 2 actors developing this type of activities and 3 districts in Gaza do not have any activity. Major weakness is in Niassa and Cabo Delgado where few districts have this type of activity [See MAP 2].

Food and nutritional supplement

MISAU, through Programa de Reabilitação Nutricional (PRN), makes nutritional supplement of children identified with acute malnutrition. For the treatment of serious acute malnutrition, almost all districts use Plumpy Nut as therapeutical supplement. For treatment of moderate acute malnutrition, MISAU with the support of WFP and UNICEF provides CSB as food supplement. However, this food supplement program has only covered the provinces of Tete, Manica, Sofala, Gaza, Inhambane and Maputo. Comparing between 2008 and 2009, here was an increase in number of children examined and therefore an increase in number of acute moderate malnutrition. [See table 5]. In 2010, MISAU, WFP and UNICEF renewed the agreement to extend the program to all provinces, raising the number of districts covered from 64 to 88. Other activities in the framework of PRN supported by local NGOs have presented evidences of impact in this area. In CMAM program in Nampula, health services use Community health agents (ACS) to assess acute malnutrition among pregnant and lactating mothers and children in communities and refer them to health units. In addition to the activities mentioned above, the ACS undertakes nutrition education and home visits. This program's results have shown a reduction in child mortality [See good practices 3].

Geographic presence of organizations with activities related to food and nutritional supplement

The highest presence of organizations and partners supporting the government in the area of food and nutrition supplement is Sofala with 3 to 4 in each district, and Gaza and Inhambane with between 1 and 4 actors in each district. In Manica, Maputo and Tete many districts have 1 the 2 actors, while in Nampula and Zambezia districts with activities related to food supplement are few. Major constraints for accomplishment of activities in this area are found in Cabo Delgado and Niassa where none of the districts has interventions on food supplement [See MAP 3].

The PMA also has a programme of nutritional support to pregnant and lactating women suffering from moderate malnutrition. The program supports approximately 8000 women per year.

Supplement with micronutrients and deworming

In the scope of the prevention of the deficiencies of micronutrients, MISAU has programs of supplement with micronutrients and deworming program whose target group are pregnant women and children under 5 years. [[O]] deworming program still includes children and adolescents who are dewormed in schools. As a way to increase the coverage of these interventions and others for Child's Life, MISAU initiated, in 2008, the National Week of Child's Health (SNSC), and in 2010 they started to also include the maternal care. Through these weeks, MISAU has managed to reach

acceptable coverage in terms of supplement with vitamin A and deworming in children under 5 years of age.

3.1.2. EDUCATION SECTOR

Among existing programs that are oriented to school health, some may have an impact in the reduction of Chronic Malnutrition, with emphasis on: school feeding, school gardening, Nutritional education and promotion of reproductive sexual health.

School Feeding

School Feeding Programa which is a program of the Ministry of Education (MINED) is being implemented with the support of WFP and JAM. This program contributes to reduction of Chronic Malnutrition by providing a meal with nutritious food, covering the daily recommended needs to ensure that girls do not leave school therefore preventing pregnancies and early marriages [See Good practice 4]. Total coverage of school feeding program is of 841 schools and 421.034 students, corresponding to 10, 72% of total country students [See Map 4].

School feeding is being implemented in ever province. In Gaza and Sofala, almost 905 of districts are covered by this activity. In Inhambane, Maputo, Niassa, Manica and Nampula, the program is being implemented in half of districts whereas in Tete and Cabo Delgado only very few districts have the program.

In 2009, MINED and WFP agreed upon implementation of accountability transference to the Provincial Directorate of Education and Culture in Nampula and Niassa provinces, in a pilot stage. In 2010, the second stage of implementation is ongoing.

Nutrition Education

According to school curriculum, teachers should teach students about nutrition, foods with high nutrition value and personal and food hygiene in both Primary and Secondary Education. However, interviews with experienced MINED representatives reveal that many teachers do not address nutrition related issues in a systemic manner because no specific subject exists on nutrition, ensuring that it is addressed as a cross-cutting issue.

School Gardening

School gardening programs aim at teaching students on how to make a garden to ensure diversified food diet. FAO is implementing a special project related to school gardening called “Celeiros da Vida” or *Junior Farmer Field and Life Schools* (JFFLS). This project has a curriculum that lasts for 11 months and conveys knowledge on good agriculture practices, health, hygiene and n nutrition. JFFLS is being implemented by FAO in collaboration with MINAG, MEC, MMAS and JAM and covers all Manica districts and half of Manica districts [See MAP 5].

Prevention of Early Pregnancy

Early pregnancy is a major cause of Chronic Malnutrition. Since 1999 to date, Geração Biz

Program (PGB) has been implemented and extended, gradually, to secondary school in all provinces with the objective of promoting sexual reproductive health. Key components of PGB are peer education, condoms distribution in counselling centres in secondary schools and creation Serviços de Saúde Amigos de Adolescentes e Jovens (SAAJ) whose basic principle is to sensitize young people and contribute to prevention of early pregnancies and HIV. [See Good practice 5].

3.1.3. SOCIAL ACTION SECTOR

Food Subsidy Program (Programa Subsídio de Alimentos -PSA) of the Ministry of Women and Social Action (MIMAS) distributes food to vulnerable people in all country provinces. Target group are the elderly without the ability to work, chronically sick people and pregnant women with malnutrition. It is particularly through its support to pregnant women with malnutrition that the program can contribute to the reduction of Chronic Malnutrition.

Intervention Coverage

In 2009, PSA benefited 143.455 households, a total of 287.454 individuals. As shown in table 10 in annex, coverage is still very low across the country and it does not reflect inequalities between northern region and southern region as far as Chronic Malnutrition is concerned.

Direct Social Support Program (Programa de Apoio Social Directo - PASD) of MIMA is another social support program that consists of cash transfer to the most vulnerable households and people in absolute poverty. The number of PASD beneficiaries increased from 7.173 in 2005 to 24.242 in 2009.

Geographic presence of organizations with food subsidies activities

WFP is supporting the Government in providing food support to Orphan and Vulnerable Children (OVCs) in the provinces of Tete, Manica, Sofala, Inhambane, Gaza and Maputo, having distributed food to 36.375 beneficiaries in the first quarter of 2010. In the framework of home-based care (HBC), WFP is providing food and nutritional support to chronically sick people as a result of HIV/AIDS in partnership with local NGOs. During the first quarter of 2010, WFP distributed food to 68.405 beneficiaries.

The impact of these interventions is reflected on the improved diversified diet of the households benefiting from HBC and OVC programs. For the beneficiaries, food assistance is the most important source of income for the country regions, covering 31% in the Centre region and 25% in the South. .

3.1.4. AGRICULTURAL SECTOR

Promotion of agricultural production of food with high nutrition value

In order to ensure food availability and Access to households in Mozambique, the Ministry of Agriculture has been promoting increased production of nutritious food through implementation of several key national programs aimed at diversifying food consumption namely maize, rice, flour, cassava, peanuts, potatoes, soya, beans, chickens and fish. These programs are being implemented in an intensive way through the use of improved production technologies such as animal traction, irrigation, fertilizers, certified seeds, agriculture extension, monitoring of animal health. In the framework of promoting nutritious foods, MINAG is implementing the Rural Extension Program (Programa de Extenção Rural) whose objective is to educate small farmers across the country to

grow crops including those with high nutrition value.
Results of sweet orange flesh potato production project (BDPA) implemented in Zambezia until 2005 with the participation of Nutrition Department of the Ministry of Health, World Vision, Helen Keller International and IIAM/MINAG indicated the need to continue promoting and expanding production of BDPA. Orange sweet potato is a key component to combat malnutrition because it is a good source of Vitamin A and energy, its growth is easy, it is regarded as women controlled crop and is a classical crop for food security. Sweet potato is less demanding in terms of growth in comparison with other staple crops and it can be grown during a long period of time without any significant losses in terms of income. In addition white sweet potato is being cultivated by many farmers already, (41% of rural households). The key assumption is that adequate consumption of complementary food based on the use of BDPA as a significant ingredient among children above 6 months and sweet potato leaves by adults will result in significant improved diversified diet.

Intervention coverage
As shown in table 11 in annex, the rural extension program supports 378.000 small farmers across the country. However this means 1 to 5% of total rural population. Niassa has the highest coverage (4%) and the lowest coverage is in Nampula (1, 4%), Cabo Delgado (1.4%) and Maputo City (1.3%) (Actividades de Extensão Agrária, MINAG, 2009).

Geographic presence of organizations promoting agricultural production of nutritious food
Many organizations have activities related to promotion of high nutritious value food. Some of these activities are related to promotion capacity building and creation of associations of small farmers for marketing and generate income in the production of nutritious food. High presence of organizations promoting production of highly nutritious food is in Nampula, Inhambane, Gaza and Zambézia where many districts have an organization working on this activity. In Sofala, half of the districts have this activity and Maputo, Tete, Niassa, Cabo Delgado and Manica do not have this activity [See MAP 7]

3.1.5. INDUSTRY AND COMMERCE SECTOR

In the industry and commerce sector, contribution for the reduction of Chronic Malnutrition is through food industries. In Mozambique the only intervention in this is the *Programa Nacional de Iodização do Sal* to reduce lack of iodine, This program results from a cooperation between the Ministry of Health and the Ministry of Industry and Commerce (MIC), the *Associações de Produtores de Sal* (Associations of Salt Producers) civil society, UNICEF and Population Services International (PSI). According to MICS 2008, use of iodated salt was only found in 58% of households and of these only 25% is iodated in an appropriate way. Poor consumption of iodated salt is wider in Nampula and Cabo Delgado provinces where only 30% of households use iodated salt (MICS 2008) [See MAP 8].
In the framework of promotion, protection and support to Exclusive Maternal Breastfeeding, in 2008 the Code of Marketing of Breast-Milk Substitutes was introduced. To ensure code monitoring and implementation, in 2008-2009, MISAU trained about 90 Monitors in all provinces and also

started training district monitors the provinces of Niassa, Inhambane and Cabo Delgado.

3.2. MANAGEMENT

3.2.1. PLANNING AND FUNDING MECHANISMS

Is absolutely central to the effort in reducing chronic malnutrition, the existence of clearly defined strategies, action plans and duly translated implementation protocols for all players, as well as levels of implementation. The action plans need to be accessible on your availability and understanding so that everyone clearly understands its role and the potential impact of their work. There are, in various sectors, several strategic action plans and implementation protocols. One of the main existing plans is the action plan on food and nutritional security (PASAN) connected to ESAN II. In the health sector, strategic plans follow the national health Policy. The action plans in the area of nutrition are primarily driven by Nutritional development strategy, 2004. As indicated in the report's analysis of the situation of commitment and capacity in the area of nutrition in the country, the absence, limited availability and/or access to documents of policies or strategies national, provincial and district specific to the area of nutrition. Of respondents who represent the three regions of the country (Gaza, Manica and Nampula) in South, Central and North respectively, it was noted that, of the various sectors of the district level, only the provincial director of Agriculture of the province of Gaza pointed out the action plan on food and nutritional security (PASAN) as a policy that supports actions in nutrition. The lack of knowledge about existing policies in the health sector, particularly in the area of nutrition, makes the success of the actions. On the other hand, the updating of policies, training manuals, standards and protocols is a time-consuming process, thus delaying its implementation and use of out-of-date manuals and protocols. There is a lack of knowledge at all levels about the budget allocated to actions in nutrition and little is known about the origin of funds (external and internal sources sources) allocated specifically to the area of nutrition, either from the Government, either of the partners, which makes the planning of interventions in nutrition. The absence of plans clearly budgeted makes it difficult to obtain financial support from partners, since activities in nutrition are often integrated into other programs. It should be noted that the resources allocated directly or indirectly for actions in the area of nutrition have grown substantially, mainly due to the pandemic of HIV/AIDS ravaging the country, but these have not been sufficient to demand of existing activities. Although insufficient, the agriculture sector has specific funds for activities of nutrition. In general, there is a shortage of financial resources for activities and training in nutrition. In the face of what has been explained above, this plan will address the budget for the interventions of the various sectors, subject to be discussed in detail in the next chapter.

3.2.2. MECHANISMS FOR COORDINATING

The existence of a Technical Secretariat for food and nutritional safety (SETSAN) created in 1998 as multisectoral technical body to coordinate actions in the area of food and nutritional safety at Central and provincial level focal points is a good opportunity to coordination. The SETSAN also acts as secretariat for the Economic Council and the provincial governments in relation to food and nutritional safety. Despite the existence of SETSAN as organ multisectoral coordination of actions and policies of SAN in the country, originally designed to be an organ of

high visibility and relevance, does not have sufficient autonomy (statutes) to meet the challenges of multisectoral coordination of SAN, implement, evaluate and monitor the PASAN. This is reflected in the result of interviews with district and provincial levels, indicating that the SETSAN has passed by many challenges, such as lack of budget to ensure better coordination of actions in nutrition and lack of trained human resources to coordinate the activities related to food and nutritional safety. Most sectors of Government, at all levels, and does not recognize the importance of integration of activities and multissectorialidade for inclusion of nutrition as a key issue for the sector. For them, the role of SETSAN to coordinate this multissectorialidade is still weak, as well as the integration and connection between food security, health and nutrition at provincial, district and community. It was noted during the field interviews, that the DPS have some difficulty, not only to coordinate the activities purely nutrition among the various institutions and organisations and to incorporate it in other activities such as food safety, but also of the insert in the activities of other government sectors such as education and women and social action. There is a major weakness in the translation of large documents strategic operational plans with concrete actions defined to achieve objectives, with clear goals for implementers. Generally, the nutrition component is little reflected in district and sectoral plans do not always adequately. There is a clear lack of sharing policies and strategies, which results in weak coordination and integration.

3.2.3. HUMAN RESOURCES AND TECHNICAL SKILLS

The inadequacy of human resources to implement nutrition programs in Mozambique constitutes one of the main constraints for the success of the achievements in nutrition. The report of the situational analysis about responsibility and Capacity for the Expansion of Actions for Chronic malnutrition's Reduction in Mozambique indicated that there was a shortage of nutrition specialized personnel's at different government's levels to undertake coordination, planning, implementation, supervision, monitoring, and evaluation of programs that could improve the situation of the chronic malnutrition[58].

Nutrition a topic under discussion in the health system all over the world, however, no one has responsibility for increasing the number of trained people in the area[59]. In 2002, the proposal was of having five Master's degree holders in nutrition at national level to develop the administration activities, planning, legal profession, training, monitoring and evaluation. At the same time, there was a proposal of having people trained in nutrition and public health in each province to practise legal profession, monitoring and the employees' training to work at district level.

Nutritional Development Plan explains that at the end of December 2003, 32 people had been employed in the area of the Nutrition in the National Health System, of which two Qualified Nutritionists, two Master degree biologists poorly trained in Nutrition (all of them assigned to the Nutrition Department at MISAU), 26 Nutritionists (at intermediate level) and two Senior Nutrition Representatives[60]. The Plan estimates that 274 Nutrition and Dietetics Practitioners will be required all over the country and, in order to maintain a satisfactory number of personnel, it is necessary to train 270 Practitioners by 2014. From 2003 to 2009, the number of Practitioners increased to 90, revealing a very low rate of growth in six years. Since 2005, the time when the

last course of Nutrition Practitioners ended, no more Practitioners and Nutrition Representatives courses were administered. The existing qualified SNS nutritionists were trained abroad.
The country has employed one Nutrition Practitioner in each Central Hospitals, which doesn't meet the expected needs, because according to the Nutritional Development Plan, the ideal would be three Practitioners of Nutrition and Dietetics in each of the Central Hospitals. Presently, each Provincial Directorate of Health employs hardly one Practitioner, instead of, three to five expected by the end of 2009. At the Central Level four Nutrition and Dietetics Practitioners are employed, which represents 80% of expected goal. It is important to mention that this analysis doesn't include the need for Practitioners employed in hospital feeding services. As for Rural and General Hospitals, according to the approach, on an average one Practitioner should be assigned to each Hospital, but in practice, the Country consists of 18 Practitioners in Rural and General Hospitals. At present, the curriculum revision of the Nutrition Practitioners course is underway, aiming for improving this professional's expertise on how to deal with the main nutritional problems in the country. Nevertheless, a degree course in nutrition is being offered at Universidade Lúrio in Nampula and in 2009 a degree course in nutrition was launched at ISCSM (Higher Institute of Science and Health of Maputo. In spite of that, it is worrying that the 2008-2015 National Plan for Development of Human Resources for Health does not to mention the professionals in the field of nutrition.
The report of the situational analysis about the Commitment and Capacity for Expansion of Actions for Reduction of Chronic Malnutrition in Mozambique found out, in addition, that the majority of the personnel employed by the health system have a wrong perception about the problem of chronic malnutrition. This suggests that there is a great need for practitioners' training, not only in the services of health, but also in schools and in agriculture. Most of the people working in field have also a wrong perception on this subject; they do not understand that nutrition is not part of Food Security, but that this is just a part of nutrition. The preventive actions of nutrition and the importance of its integration in the maternal-child care, within a life cycle perspective, is not understood by all. Few are aware of the importance of these actions.

Elementary Versatile agent (APEs)
The National Program of APEs is a program focusing on community and it has been developed with a view to improve the population's access to basic health. Among the tasks of APE, quite a lot of them can contribute to reduce chronic malnutrition, namely: nutritional education, community's education on the importance of the personal and community hygiene and, of removal of community garbage, including that of the pets, the community's education regarding protection of sources of water and the quality of water drank within their family drink, encouragement of construction and adequate use of the latrines, population's education of on the importance of washing hands after using the latrine and before preparing the foods, before meals and before feeding the children, - diffusion of key message about the prevention and monitoring of malaria, tuberculosis, leprosy, diarrhoeic diseases and infection of HIV and other of sexual transmitted diseases; community groups education on the maternal breast- feeding and good practices of it weaning; parents' education on the importance of good nutrition and of the spacing of pregnancies for the growth and children's healthy development, emphasizing the importance of

adopting methods of family planning; parents' counselling to take their children to US (Health Units) for regular check up of growth.
The MISAU believes that a successful implementation of the revitalized program of APEs could allow the extension up to 20% of the present covering of health care provided to the Mozambican population by the National Health System.

CHAPTER 2
1. MULTI-SECTORIAL ACTION PLAN FOR REDUCTION OF CHRONIC MALNUTRITION

The general objectives, the goals, the strategic objectives and the expected outcome of the plan were set taking into account the analysis of the situation, gaps were identified and priorities defined, in accordance with the policies, strategies and government plans especially of the Health, Education, Agriculture, Woman and Social Action, Public Works and House and Industry and Trade sectors. In the Government's 2010-2014 Five Year Program, the proposal of the development of a " Multi-sectorial Action Plan for the Reduction of Chronic Malnutrition " is included in the sector of the Health, as a priority action to be developed in the area of Woman's and Child's Health , at the same time that Food and Nutritional Security is considered "Transversal Subject."

The present plan also takes into account the most recent recommendations at international level on how to go about accelerating the reduction of infant-maternal malnutrition, for instance the strategic document of the World Bank "Repositioning Nutrition the Central to Development" published in 2006[61], and other documents[62] that base on the tasks recommended by "Lancet Nutrition Series" (LNS)[63] published in 2008. If the package of Essential Nutritional Interventions (INE) of LNS effectively were effectively aimed to mothers from the conception period and children between to two years of age and implemented in a wide scale, infant's mortality would be reduced, in the short run, in about 25%, the maternal mortality in 20% and the chronic malnutrition in children in 30%. The international recommendation suggests that the INE package needs to be adapted to the local conditions and it should also be incorporate in the national plans of reduction of the poverty, through different sectors, making efforts aiming at strengthening food security, setting up social security networks (that includes the conditional money transfer); efforts to invigorate health services, especially those that seek to keep continuous health care for the mother, newly born and the child, through community-based activities. Tasks that seek reduction of precocious pregnancy are an additional aspect added to INE package for the chronic malnutrition. There are is no scientific proof based on ***double- blind /screen*** studies that demonstrate that controlling the precocious pregnancy makes it possible to reduce the chronic malnutrition. But common sense suggests that it is probable that the precocious pregnancy play an important role in the causality of the chronic malnutrition in Mozambique. The INE package for Mozambique also contains activities related to production of foods with high nutritional value and activities for promotion of safe sanitation. This package will be explained in details in Appendix 1.

The success of this Multi-sectorial Action Plan for Reduction of chronic malnutrition depends, to a large degree, on other plans that are to be implemented at national level like the Plan of combat of HIV/AIDS and Malaria, which contain INE package interventions for malnutrition, and of other sectorial plans, such as the one of the Agriculture, Education and Social Action. However, if the interventions embodied in these different plans are not properly coordinated and implemented, the impact on the Multi-sectorial Action Plan for Reduction of chronic malnutrition

can be reduced. It is also important to stress that the present plan doesn't include the activities related to the treatment of the acute malnutrition, since these are present in the Integrated Plan of attainment of Objectives 4 and 5 of Millennium Development.
It is important to state that some INE package tasks for Reduction of chronic malnutrition are already included in the Integrated Plan to Meet Objectives 4 and 5 of Millennium Development[64], more specifically, in the Package E (page 52), as for instance, the encouragement of maternal breast-feeding and the supply of iron and folic acid supplements for pregnant women. However, the present plan recommends community-task based activities, which is a different way of implementing. To stress that this implementation has implications, particularly, with regard to Strategic Objective № 3 of attainment of Objectives 4 and 5 of Millennium Development of the Integrated Plan, which deals with invigoration of involvement and communities' capacity to encourage maternal, neonatal, infant, school and adolescent's health.
The present plan is not confined and may eventually need revision (revisions), depending on the evidences of the implementation tasks laid down on it, especially those that are new in the country and, on recent scientific evidences.

1.1. GENERAL OBJECTIVE

To accelerate the reduction of the chronic malnutrition in children under 5 years of age from 44% in 2008 to 30% in 2015 and 20% in 2020[65], contributing to the reduction of infant morbid-mortality and assuring the development of a healthy and active society.
The implementation of the present plan will still contribute to the attainment of the set goals in Objectives 1, 2, 3, 4, 5 and 6 of Millennium Development (ODM) and for the progressive accomplishment of human economic, social and cultural rights, especially the right to feed and health.

1.2. GOALS FOR EACH TARGET GROUP

The target group includes girls in their adolescence aged (10-19), the women at reproductive age, before and during pregnancy and lactation and children in the first two years of life.
These groups should be prioritized for they represent the "window of the opportunity ", where chronic malnutrition multiplies and it can be reverted.
The selection of these age groups is also due to the fact that this plan intend to give priority to the tasks at immediate level of causality of the chronic malnutrition, because definitely, in this way, it will be possible to wait for a faster answer, comparatively to the one obtained by actions aimed at underlying levels of causality. Besides, the present plan presupposes that the other strategies and plans that consider the resolution of the underlying and basic causes of the chronic malnutrition at family, community and social level as a whole is to be implemented.

Adolescents

- Reduce the anaemia rates in adolescents inside and outside the school setting from (estimated) 40% in 2010 to 20% in 2015 and 10% in 2020 #

Pregnant and nursing women

- Reduce anaemia rates during pregnancy from 53% in 2002 to 30% in 2015 and 15% in 2020 *
- Increase in the number of women who gain 5kg during the pregnancy to 30 percentile points in 2015 and 2020 #(database to be evaluated)
- Reduce the iodine deficiency in pregnant women from 68% in 2004 to 35% in 2015 and 15% in 2020 *
- Increase rates of comprehensive preventive administration of vitamin in postnatal from 60% in 2010 to 70% in 2015 and 90% in 2020 *

Women at Reproductive Age

"Reduce anaemia rates in women at reproductive age from 56% in 2010 to 30% in 2015 and 15% in 2020 *

Children under 5 years of age, with emphasis children under 2 years of age[66]

- Reduce newly born's wasting at birth from 15% in 2008 (MICS) to 10% in 2015 and 5% in 2020 *
- Reduce the rate of prevalence of Chronic malnutrition in children under two years from 37.4% in 2008 (MICS) to 27% in 2015 and 17% in 2020 *
- Increase the rates of Exclusive Maternal Breast-feeding babies under six months from 37% in 2008 (MICS) to 60% in 2015 and 70% in 2020 #
- Increase rate of children aged 9-11 months who received at least three meals of supplementary feed during the day, from 37% in 2008(MICS) to 52% in 2015 and 67% in 2010
- Reduce anaemia rate in children from 74% in 2002 to 30% in 2015 and 15% in 2020

1.3 STRATEGIC OBJECTIVES, EXPECTED OUTCOME AND MAIN TASKS

1.3.1. STRATEGIC OBJECTIVES AND EXPECTED OUTCOME

STRATEGIC OBJECTIVE №1: To strengthen activities with impact in the nutritional state of adolescents (10-19 years old)

Outcome1.1. – have anaemia in adolescents aged (10-19) monitored, and;
Outcome1.2: aged (10-19), Anaemia controlled in adolescents (under19 years of age) within and outside the school setting.

Result1.2. Reduced premature pregnancy among adolescents (under 19 years)
Result1.3. Strengthened nutritional education in different training levels as part of school syllabus, including education for adults' syllabuses

STRATEGIC OBJECTIVE 2: Strengthen tasks with impact on health and nutrition of women at reproductive age before and during pregnancy and lactation;
Outcome 2.1: Reduced deficiencies in micronutrients and anaemia before and during pregnancy and lactation.
Outcome 2.2: monitor infections before and during pregnancy and lactation.
Outcome 2.3: Increase the number of weight gains during pregnancy.

STRATEGIC OBJECTIVE 3: Strengthen nutritional activities aimed at children in the first two years of age.
Outcome 3.1: All mothers Breast-Feed their new-born babies exclusively in the first six months after birth.
Outcome3.2: All children from 6 to 24 months receive supplementary proper food. Outcome 3.3: Reduced deficiencies in micronutrients and anaemia in all children from 6 to 24 months of age.

STRATEGIC OBJECTIVE 4: **To strengthen activities aimed at family, for the improvement of the access and use of foods of high nutritional value**.
Outcome4.1. Locally produced foods with high nutritional value and utilized by the poorest families.
Outcome 4.2.: Reinforced the capacity of the vulnerable family to the Food and Nutritional Insecurity (InSAN) for the processing and appropriate storage of the foods; Outcome 4.3. Ensure that vulnerable family to InSAN with access to support services and social protection, pregnant and nursing mothers', adolescents and children between 6-24 months of age take enough and diversified food;
Outcome 4.3. Increase supply and consumption of fortified foods in the communities, particularly the iodized salt;
Outcome 4.4. Ensure basic sanitation for poorer family homes raising adolescent girls, and children less than 2 years of age or living with pregnant and nursing mothers.

STRATEGIC OBJECTIVE 5. **Strengthen the capacity of the Human resources in the nutrition area**.
Outcome 5.1. Qualified Human Resources responsible for nutrition at national, provincial and district level;
Outcome 5.2. Advisors in healthy feeding and nutrition from health sector, food security and education.

STRATEGIC OBJECTIVE 6: Strengthen the national capacity to promote, coordination and to supervise the progressive implementation of the Multi-sectorial Action plan for Reduction Chronic Malnutrition.
Outcome 6.1. Have a group of Multi-sectorial coordinatinators assigned at national level;
Outcome 6.2. Have an executive Multi-sectorial group appointed to administer of the implementation of the plan at national level;

Outcome 6.3. Have an executive Multi-sectorial group assined to supervise the activities of monitoring and evaluation of the plan at national level.
Outcome 6.4. Have an executive Multi-sectorial group assined to manage the legal profession activities and social mobilization for the reduction of chronic malnutrition at national level,
Outcome 6.5 Have an advisory group of Multi-sectorial coordination appointed at provincial and district levels capable of coordinating the implementation of the plan, and of practising legal profession and social mobilization for the reduction of Chronic Malnutrition.

STRATEGIC OBJECTIVE No 7: Food and nutrition control system strengthened

Outcome 7.1. Strengthened Administration of vigilance of Food and Nutritional Security's system at different levels (national, provincial and district);
Outcome 7.2. Information should be made available beforehand and disaggregated about SAN within the country.

II. ACTIVITIES PLAN

STRATEGIC OBJECTIVE 1: Activities with impact on teenagers' nutrition status strengthened

KEY OUTPUTS	INTERVENTION/ACTIVITY	INDICATORS	RESPONSIBLE INSTITUTION	INPUT
Result 1.1. Aneamia in teenagers controlled (10-19 years old) within and out of schools				
Female teenagers supplemented with folic acid/iron	Oversee female teenagers supplement with iron and folic acid over school period	% of female teenagers supplemented in schools % of students deformed in schools % of students with knowledge on aneamia and nutrition	MISAU MEC	Availability of folic acid/iron Availability of anti-helmintics Trained teachers in nutrition and IEC material available Health professionals for technical support available
Teenagers periodically dewormed	Carry out teenagers supervised deworming on an biannually		MISAU	
Raise awareness to teenagers on aneamia	Awareness raised to students on the dangers of aneamia, its causes, relation to chronic malnutrition, maternal mortality and cognitive function		MEC	
Male and female teenagers periodically treated within and out of schools	Build teenagers' capacity in schools to support identify teenagers in their communities and carry out peer education and to function as link between health services and the community	% of teenagers trained % of trained teenagers carrying out peer community mobilization	MEC MISAU MJD	MISAU staff and materials for out of school social mobilization available
	Provide supplement, deworm and raise awareness on teenagers out of schools through Health Centres, SAAJs and mobile brigades			

KEY OUTPUTS	INTERVENTION/ACTIVITY	INDICATORS	RESPONSIBLE INSTITUTION	INPUT
Result 1.2. Early pregnancies among teenagers reduced (10-19 years old)				
Use of any pregnancy prevention method by female teenagers (10-19 years old)	Provide counselling (including on risks of early pregnancy) and contraceptives methods to teenagers through Health Centres, SAAJs and APEs	%of male teenagers counselled and using a contraceptive method % of female teenagers counselled and using a contraceptive method o % of female teenagers with early pregnancy counselled	MISAU	Contraceptives methods available All APES and health services providers trained in contraceptive methods Teenagers' attendance of Health Centres and SAAJs
Early pregnancies among female teenagers reduced	Education campaigns to the general public (Women's day, Mother's day, etc.) to raise greater political awareness on negative implications of early marriages Mobilize local leadership through advocacy sessions on district and provincial assemblies to support in raising people's awareness son early marriages problems	% of campaigns %of female teenagers <18 married	MIMAS MJD	Political commitment to deal with these problems of CEDAW and CRC conventions
Result 1.3. Nutrition education to different education levels as part of the curriculum, including alphabetization curricula, strengthened				
Teenagers trained on nutrition	Include education on nutrition as a subject in education curricula Materials for teachers and students developed Train trainers and teachers through	Teaching materials developed and made available in the Health Centres %of trained teachers	MINED MINAG MISAU	Likelihood to change education curricula Capacity to train

KEY OUTPUTS	INTERVENTION/ACTIVITY	INDICATORS	RESPONSIBLE INSTITUTION	INPUT
	training institutes	% of teenagers who understand what nutrition is		trainers in nutrition
Education on nutrition in school encouraging school gardens	Teenagers trained to grow a garden and care for over several weeks Teenagers trained on nutrition value of vegetables and their importance, especially for pregnant and lactating women to prevent chronic malnutrition	% of schools with gardens % schools using products from their gardens in school feeding		Teachers trained on development of school gardens and nutrition value Ensure that conditions for food preparation for other students are available in schools

STRATEGIC OBJECTIVE No 2: Interventions with impact on productive, lactating and pregnant women's health and nutrition strengthened

KEY OUTPUTS	INTERVENTION /ACTIVITY	INDICATORS	RESPONSIBLE INSTITUTION	INPUT
Result 2.1. Aneamia and micronutrients deficiency reduced before and during pregnancy and lactation				
Every woman takes a minimum of 180 capsules of multimicronutrients during pregnancy and 90 after pregnancy	Supplement pregnant women with capsules of multimicronutrients (180 capsules) and post-pregnant (90 capsules) through health services Active work in communities to identify women at the beginning of pregnancy and refer them for pre-natal clinic consultation Weekly delivery of capsules of multimicronutrients to pregnant women by APEs Raise pregnant women' awareness through APEs to take capsules of multimicronutrients on a regular basis	% of pregnant women receiving micronutrients during pregnancy %of pregnant women taking multimicronutrients during pregnancy % of pregnant women with aneamia Ration of haemoglobin (Hg) in pregnant women who make anti-natal control	MISAU	Equipment to measure Hg in place in all Health Centres All APEs trained in aneamia control All nurses trained on the dangers of aneamia and how to control it
All post-delivery women take vitamin A capsule	Vitamin A supplementation to post-delivery women, including women who gave birth at home	% of post-delivery women receiving vitamin A supplement	MISAU	That all nurses are trained on the importance of vitamin A supplement to women

Mothers do not get pregnant before two years	Provide counselling and contraceptive methods in health units for control of spacing between pregnancies, during 2 years, after the first pregnancy	% of women who do not get pregnant during 2 years after the first pregnant Ration of Hg in non pregnant productive women	MISAU	That health staff is trained in counselling on pregnancy spacing That the couple agrees and decides to increase the spacing from one pregnancy to the other
Result 2.2. Infections controlled before and during pregnancy and lactation				
All women, take multimicronutrients supplements and take necessary measures to control infections that cause aneamia	Pregnant woman deworming in health units carried out and through APEs Provide Intermittent Preventive Treatment (ITP) of malaria during pregnancy Mosquito nets treated with long lasting insecticides distributed and their use promoted Treat HIV/AIDS women with antiretroviral (ART) Treat sexually transmitted infections (STI), when necessary	% of women dewormed % of pregnant women attending anti-natal check up %of pregnant women in anti-natal control with infections (STI, intestinal parasites, HIV) receiving treatment for infections % of pregnant women under pre-natal control who receive ITP of Malaria % of pregnant women using mosquito nets treated with long lasting insecticides	MISAU	Health staff trained to diagnose and treat infections in pregnant women Health staff and APEs trained to deworm pregnant women

Result 2.3. Weight increase during pregnancy				
Pregnant women properly counselled attending anti-natal control and supplement if needed	Control weight increase during pregnancy in anti-natal check up through record of weight gain in a form (antenatal form) and counselling on adequate weight gain	% of human resources trained to control and provide counselling on weight gain among pregnant women % of Health Units providing control on weight gain among pregnant women	MISAU	Health Units equipped and capacitated to promote weight gain during pregnancy (that have scales and cards)
	Provide food supplement to all pregnant women from 6 months in selected districts	% of pregnant women receiving food in selected districts	MISAU MIMAS	That a mechanism to provide food supplement is put in place

STRATEGIC OBJECTIVE No 3: Child-oriented nutrition activities in the first two years of birth strengthened

KEY OUTPUTS	INTERVENTION/ACTIVITIES	RESPONSIBLE INSTITUTIONS	INDICATORS	INPUT
Result 3.1. Exclusive breastfeeding in the first six months of birth				
Health Units and communities sensitized, equipped and capacitated to promote and support Exclusive Breastfeeding in the first six months of birth	Community health workers and midwife trained in support and exclusive breastfeeding during the first six months of birth	MISAU	% of midwifes trained on Exclusive Breastfeeding	Human resources trained in supporting exclusive breastfeeding Courses on breastfeeding for other health staff in place Trainers in place to train mother groups, APE and community leaders
	Information materials distributed, education and communication on the importance of exclusive breastfeeding up to the first six months		% of midwifes providing adequate support to ensure exclusive breastfeeding by other mothers trained	
	APEs support mothers and the new born to ensure exclusive breastfeeding		% of community leaders trained in exclusive breastfeeding	
	Community mother groups set up to support other mothers with children under 6 months to ensure exclusive breastfeeding in first six months of birth		% of community leaders that mobilize and support mothers with to ensure excusive breastfeeding % of support mothers % of children under 6 months old benefiting from exclusive breastfeeding	
Follow-up form tags, feeding-bottles sold in compliance with the Code of Marketing of Breast-milk Substitutes Lack of child forms promotion materials in health units and overall society	Ensure systematic and regular monitoring of the Code of Marketing of Breast-milk Substitutes	MISAU MIC Civil Society	% of infringements to the Code documented % of infringements to the Code penalized	Punishment to infringers to the Code NGOs and other civil society members monitor the Code under government supervision
	Ensure fines are charged to			

	infringements to the Code			
Result3.2. All children aged from 6 to 24 months receiving adequate complementary feeding				
All children aged 6 to 24 months in compliance with adequate standard growth	Counselling ability strengthened in health child services, including complementary local food preparation demonstrations	MISAU MIMAS	% of children between 6-24 months with stunting or below the red line in the growth graphic % of children with stunting % of children with stunting % of children with wasting % of children aged between 6-24 months old who received nutrition supplementation % of children aged 6-59 months who received 2 vitamin A doses % of children aged 12-59 months deformed	Health Units equipped and capacitated to promote adequate complementary feeding o children aged between 6 to 24 months Health Units equipped and capacitated to promote adequate complementary feeding o children aged between 6 to 24 months Mechanisms to provide strong nutrition supplementation to children set up

STRATEGIC OBJECTIVE No 4: Household-oriented activities to improve high nutrition food access and utilization strengthened.

KEY OUTPUTS	INTERVENTION/ACTIVITY	RESPONSIBLE INSTITUTION/PERSON	INDICATORS	INPUTS
Result 4.1. Poor households produced and utilized local foods				
High local nutrition foods production and consumption increased	Research on agriculture products nutrition carried out including wild foods and promote those with the high nutrition value High nutrition products promoted though agriculture extension activities Nutrition demonstration training promoted (including food processing) as part of the agriculture extension system	MINAG MISAU	Nr of foods with high nutrition value identified % of households using foods with high nutrition value on a regular identified % of communities benefiting from nutrition demonstrations training % of households participating in training activities and changing their diet	That agriculture extension systems have the capacity to carry out more activities Training materials and human resources with the capacity to train extensionists in place
Result 4.2: Food insecurity and nutrition vulnerable households' capacity reinforced in adequate food processing and storage				
Households vulnerable to nutrition and food insecurity trained to improve food processing, storage and utilization	Build the capacity of households members on good improved food processing and storage practices, including hygiene and food insecurity	MISAU MINAG	% of capacity building courses provided % of households vulnerable to	That agriculture extension systems have the capacity to carry out more activities

KEY OUTPUTS	INTERVENTION/ACTIVITY	RESPONSIBLE INSTITUTION/PERSON	INDICATORS	INPUTS
	Food storage conditions improved		nutrition and food insecurity attending courses % of households vulnerable to nutrition and food insecurity attending and improving food processing and conservation	Training materials and human resources with the capacity to train extensionists in place
Result 4.3. Food insecurity and nutrition vulnerable households with access to support services to ensure sufficient and diversified food for pregnant and lactating women, teenagers and children aged between 6-24 months				
Food security and nutrition of vulnerable children to food insecurity and nutrition improved	Income transfer (cash) to the poorest households with teenagers or pregnant and lactating women Provision of financial support for animal breeding to low income households with female teenagers provided they increase the spacing between pregnancies and ensure that teenagers do not get pregnant Provision of needed subsidies for animal breeding (cages, eggs, among others) to teenager with children Technical support for animal breeding	MIMAS	% of households that benefited from income transfer % of vulnerable female teenagers to food insecurity and nutrition who consume on a regular basis meat during pregnancy and lactation	Financial resources available
Result 4.4. Supply and consumption of strong food increased in the community, in particular iodated salt				
Community mobilized to consume iodated salt regularly	Home salt testing by APEs for pregnant and lactating women to	MISAU	% of households consuming iodated salt	APEs available for testing and promoting iodated salt

KEY OUTPUTS	INTERVENTION/ACTIVITY	RESPONSIBLE INSTITUTION/PERSON	INDICATORS	INPUTS
	ensure that slat s iodated	MEC		Salt testing *kits* available
	Testing of salt consumed by students in schools			Teachers trained in the importance of iodated salt
	Advocacy with community leaders to support in promoting iodated salt in the community			
Iodated salt availability in the market increased	Increase salt supervision in the market and companies, including penalizations in case of infringements	MISAU MIC	% of adequate iodated salt available in the market (formal and informal)	That supervision of slat in the market and mechanisms to punish infringers
	Support to producers to ensure salt is iodated			
Strong foods with key micronutrients made available in the market	Create a technical team and set up National Fortification Committee to coordinate and develop strategic documents, select foods to be fortified and micronutrients to be added and set out fortification norms and standards	MIC MISAU	Regulation and Standards on food fortification set out	Political commitment
	Support millers and other selected food producers		% of selected processing Industries/Companies that fortified foods under the regulation and standards set out	Technical capacity to set out regulation Technical capacity to support industries in food fortification process
	Set out supervision methods for food fortification process in Mozambique			
Result 4.5. Ensure basic sanitation in the poorest households with female teenagers, pregnant women and children under 2 years old				
Increase use of latrines and washing hands after its utilization by female	Community mobilization for latrine construction and their adequate	MOPH MISAU	% of household with latrines	Financial and technical assistance to support communities in latrine

KEY OUTPUTS	INTERVENTION/ACTIVITY	RESPONSIBLE INSTITUTION/PERSON	INDICATORS	INPUTS
teenagers , regnant and lactating women	utilization Promotion of good hygiene practices through lectures and theatres on personal hygiene		% of household latrines and wash hands after their utilization	construction in place

STRATEGIC OBJECTIVE No 5. Human Resources capacity in nutrition strengthened

KEY OUTPUT	INTERVENTION/ACTIVITY	RESPONSIBLE INSTITUTION	INDICATORS	INPUTS
Result 5.1. Human resources responsible for nutrition and provincial and district levels capacitated.				
Training materials and capacity methods set up Nutrition staff with the ability to adequately manage nutrition activities	Review Terms of Reference of responsible stakeholders for nutrition in each sector at national, provincial and district levels	SETSAN MISAU MEC	Training materials developed Capacity building methods set up Capacity building carried out	Full time human resources with the capacity to develop indicated activities
	Design adequate curricula to train nutrition staff at national, provincial and district levels			
	Develop training materials and capacity building methods for national, provincial and district staff			
	Identify and contract teachers to train in capacity building courses			
	Carry out capacity building courses at every level			
Result 5.2. Health, food security and education sectors staff capacitated in food and nutrition				
Training materials and capacity building methods set up Health, food security and education staff with the ability to carry out counselling and nutrition activities	Develop training materials and capacity building methods in nutrition services for health, food security and education staff at provincial and district levels	SETSAN MISAU MEC MINAG/MIC	Training materials developed Capacity building methods developed % of capacity building courses performed	Full time human resources with the capacity to develop indicated activities Trainers to train nurses and midwives in place Sufficient training materials available
	Design curricula for on-the-job training for health, food security and education sectors staff			
	Provide on the job training courses on nutrition to health, food security and education sectors staff			

KEY OUTPUT	INTERVENTION/ACTIVITY	RESPONSIBLE INSTITUTION	INDICATORS	INPUTS
	Carry out on the job training capacity building for nurses and midwifes in Health Units		% of health, food security and education staff trained % of people trained	

STRATEGIC OBJECTIVE 6: Strengthen national capacity for advocacy, coordination, management and progressive implementation of the Multissectorial Action Plan for Chronic Malnutrition Reduction.

KEY OUTPUT	INTERVENTION	INDICATORS	INPUTS
Result 6.1.National Multissectorial coordination group set up			
National coordination group set up	Create (TOR) a national Multissectorial advisory committee to manage the implementation plan	Coordination group set up and functional	Political commitment in place
	Submit TOR for the composition of the group with defined attributes and powers for approval by Decree		
	Ensure funding for the group		
Result 6.2. A Multissectorial executive group set up for national plan implementation management			
Management group set up with at least 1 focal point in each institution	Create interssectorial subgroup for management of the implementation plan with tasks defined at national, provincial and district levels	Executive group set up and functional	Political commitment in place

KEY OUTPUT	INTERVENTION	INDICATORS	INPUTS
At least 80% of the Plan funded	Develop annual budgeted plan at all levels	Plan and budget developed % of funded plan	Internal resources or existence of donors to fund the plan Political commitment in place
	Mobilize funds at different levels for the implementation of the plan		
	Submit annual plan to the Ministry of Finance		
Increase of health, education and food security staff trained in nutrition	Develop human resources system to manage the implementation of plan activities a t provincial and district levels	· Human resources and capacity building plans developed and budgeted % of total budget mobilized for human resources plan	That resources are in place to enable development of activities Political commitment in place
	Develop a capacity building plan for other health, education and food security staff		
Result 6.3. A Multissectorial executive group created to manage plan monitoring and evaluation at national level			
Functional M&E group Monitoring results and plan assessment studies published	Create a multisectorial executive group to manage monitoring and evaluation activities	Group set up Monitoring and evaluation plan developed and budgeted Plan funded % of monitoring and evaluation reports % of quarterly/biannual/annual monitoring and evaluation reports	That resources or donors to fund the plan is in place Political commitment in place Human resources capable of developing activities
	Group develops monitoring and evaluation plan for national, provincial and district levels		
	Quarterly district, biannual provincial monitoring with an annual national review		
	Quarterly district and biannual provincial supervisions		
	Biannual provincial and annual national stocktaking, with plan review		
	Mid-term evaluation every four months		

KEY OUTPUT	INTERVENTION	INDICATORS	INPUTS
	Progress reporting on a regular basis		
Result 6.3. Multissectorial executive group created to manage social mobilization and advocacy activities for reduction of chronic malnutrition at national level			
Functional social mobilization and advocacy sub-group Partners, civil society ad private sector collaborating for reduction of chronic malnutrition	Create a multisectorial executive group to manage social mobilization and advocacy activities	Group set up Communication and advocacy plan developed and budgeted % of funded plan % of communication and advocacy plan carried out % of total budget for advocacy plan mobilized % of private sector partners e civil society engaged in advocacy and communication % of advocacy and communication activities carried out	Resources or existence of donors to fund the plan
	Develop and budget a communication and advocacy plan for national, provincial and district levels		
	Develop a network with the private sector and civil society to support the activities		
	Timely information and resource mobilization campaigns on reduction of chronic malnutrition carried out at all levels		
Result 6.4. A multisectorial coordination advisory group at provincial and district levels capable of coordinating the implementation of the plan, perform advocacy activities and social mobilization for reduction of chronic malnutrition			
Coordination group created at provincial and district levels	Create (TOR) a multisectorial advisory group at provincial and district levels to coordinate plan implementation	Function coordination group set up	Political commitment in place
	Submit TOR for group composition with powers and attributes defined for endorsement by Decree		

KEY OUTPUT	INTERVENTION	INDICATORS	INPUTS
	Ensure group funding		
Result 6.5. Create an executive group at provincial and district levels capable of managing plan implementation, carry out advocacy and social mobilization for the reduction of malnutrition and perform monitoring plan			
Management group created with at least 1 focal point in each institution Monitoring results and evaluation studies published at provincial and district levels	Interssectorial subgroup set up to manage implementation plan with defined tasks at provincial and district levels	Functional executive group set up Campaigns carried out % of capacity building courses undertaken Monitoring and evaluation plan developed and budgeted % of funded plan % of monitoring and evaluation reports	Political commitment in place That resources or donors to fund the plan are in place That human resources capable to develop the activities are in place
	Group develops human resources plan to manage implementation plan at provincial and district levels		
	Group develops a capacity building plan for other people from health, education and food security sectors		
	Group manages monitoring and evaluation implementation plan at provincial and district levels		
	Carry out quarterly district and biannual provincial monitoring		
Donors, partners, civil society and private sector collaborating for education of chronic malnutrition	Manager advocacy and communication implementation plan at provincial and district levels	Communication and advocacy plan developed and budgeted % Plan funded % of communication and advocacy plan achieved Communication plan for behaviour change developed	that resources are available to fund the plan plan
	Develop a network with the private sector to support the activities		
	Timely information and resource mobilization campaigns for the reduction of chronic malnutrition undertaken at all levels		

KEY OUTPUT	INTERVENTION	INDICATORS	INPUTS
		% of private sector and civil society organization sectors engaged in advocacy and communication % of advocacy and communication	

STRATEGIC OBJECTIVE No 7: Food and nutrition control system strengthened

KEY OUTPUS	INTERVENTION ACTIVITY	INDICATORS	INPUTS
Result1. Appropriate management of Nutrition and Food Security activities at different levels (national, provincial, district).			
Create a food and nutrition control system that provides reliable information on Nutrition and Food Security on timely regular basis	Extend nutrition survey sentinel posts to all districts and Health Units that track growth Strengthen, at all levels, the capacity to collect, analyze and report food security and nutrition data, ensuring its use for policy/strategy and program design	Review performed % of trained staff to collect, analyze and report nutrition and food security data by province/district % of regular reports generated by MISAU or SETSAN	Resources for activities undertaking
Result 1.2. Timely and disaggregate information available on country nutrition and food security improved			
Regular and timely information on nutrition and food security at and for all levels available	Set up a national database for Nutrition and Food Security Identify\Create a *website* to facilitate information on nutrition and food security flow	Functional nutrition and food security database and information shared among different stakeholders Nr of indicators included in database	Resources for activities undertaking

III. STAGES FOR PLAN DEVELOPMENT

Activities linked to Strategic Objectives 5, 6 and 7 are primary activities to develops and aim at: 1) human resources capacity in nutrition and education nutrition of the overall population on chronic malnutrition strengthened; 2) Strengthen national capacity for advocacy, coordination, management and progressive implementation of the Multissectorial Action Plan for Chronic Malnutrition Reduction; e 3) Food and nutrition control system strengthened.

Individual immediate oriented interventions which are part of Strategic Objectives 1, 2 and 3 are key primary interventions. These interventions will speed the reduction of chronic malnutrition in short-term.

Second priority are interventions under strategic objective 4 that will take longer to be implemented e require research to decide how to undertake them.

This Multissectorial Action Plan for Chronic Malnutrition Reduction intends to follow Integrated Plan for Achieving MDG 4 and 5, achieving RED (Reaching Every District) strategy, a way of improving provision of health services with the objective of improving efficient Resources utilization and reach people in difficult accessible areas with women, children and teenagers oriented interventions[67]. However, critical provinces and districts with will be prioritized n the chronic malnutrition plan.

IV. HUMAN RESOURCES

Based on the several assessments undertaken and above, capacity building courses need to be developed at all system levels, including master levels for country action leaders and on the job training for health, agriculture and education staff working on nutrition and food. Given the number of people in need of training in a short period of time, capacity building materials and methods should follow long distance training as many times as possible. These capacity building courses should whenever possible be undertaken in places where the participants live and work to reduce costs, enabling many nutrition staff to be covered. This strategy would likely sort out the problems of many students not returning to their home countries after conclusion of their studies abroad.

Capacity building packages on nutrition security would be based on the "Nutrition Essentials" manual[68], used by MISAU develop the Basic Nutrition Package (Pacote Nutricional Básico -PNB). This manual is a guide for health services managers developed by BASICS in collaboration with UNICEF and WHO. However, it needs to be adapted and updated to reflect the latest Essential Nutrition Interventions (Intervenções Nutricionais Essenciais - INE) that should be adapted to Mozambique context.

Materials based o this content could be used to support health services capacity building at district levels to enable them develop a nutrition security plan in their respective districts, including appropriate nutrition interventions for mother and children's health service through services modalities, ensuring continued health care services from birth to the age of 2[69] (i.e. through health units, time extension for mobile brigades and through community based services developed by APEs). Each INE should include Protocols and methods to develop and implement social mobilization and communication plan and perform supervision and monitoring at district level.

Considering requirements needed for plan implementation is key to define training curricula. A relevant part in curricula development is design of concept frameworks[70] to define nutrition practices needed in public health in Mozambique. This will facilitate development of needed work force. All these activities require three abilities in Nutrition and Public Health: 1) forefront people

(they may not be all “nutritionists”); 2) managers/supervisors (some from the heath sectors); 3) specialist (many from the highest system level). Specific abilities should be agreed upon and adequate curricula developed in each level.

V. MONITORING & EVALUATION

5.1 OBJECTIVE AND EXPECTED RESULTS FROM MONITORING & EVALUATION PROCESS

Monitoring and Evaluation Plan (M&E Plan) aims at providing consistent and reliable information on the progress of the Action Plan for chronic malnutrition reduction implementation. Provided this is a multisectorial plan and dependent on the implementation of many other plans, particularly, Integrate Plan for Achieving the Millennium Development Goals 4 and 5, M &A plan include data collection on the progress of a number of plans from the health sector and other sectors.
Specific objectives of M&E plan for the Action Plan are: 1) guide data collection, processing and selected indicators analysis; 2) monitor activities implementation in accordance with the operational plan to ensure reporting and accountability as well as timely resolution of problems that may occur during the implementation process; 3) information provided to plan implementers and managers to ensure they have timely information for decision taking; 4)timely documentation of the results achieved against the targets; 5) serves as guide for national authorities and corporation partners on the response to Programs and Services under implementation aimed at accelerating and reducing chronic malnutrition; 6) promote evaluation and research activities aimed at improving performance of The Multissectorial Action Plan for Chronic Malnutrition Reduction.

The monitoring process shall follow up strategies and activities to identify progress achieved based on the targets set, providing manager the opportunity to clarify, identify and respond to needs emerging during the implementation process. The evaluation process should help determine the importance, efficiency, effectiveness and sustainability of Action Plan interventions as well as identify future policy, strategies and interventions.

Key tasks and activities for this M&E are: 1) advocacy for setting standards of M&E methods and indicators for actions on Nutrition and Food Security; 2) M&E processes in Food Security and Nutrition articulated and simplified, ensuring coordination with the Department of Nutrition of MISAU and SETSAN in MINAG and, among others, ensure systemic, effective and quality data collection and analysis 3) promote undertaking of these multisectorial activities surveys; 4) progress reports disseminated on a regular basis.

To start with the implementation, nutrition and other staff managing nutrition programs at district levels need to trained first using INE capacity building package. In a parallel way, nutritionist and biologist at national level and nutrition staff at provincial level should attend or study for diploma/bachelor and/or master degree by correspondence. On the job training capacity building of INE for staff at district level can be developed by an external group and training carried out by others, while building capacity of managers at district

and provincial levels. Capacity building f 270 staff in nutrition could be carried out in parts of 30 trained/year.

5.2. MONITORING AND EVALUATIONMECHANISMS AND INFORMATION SOURCES

No specific mechanisms are set, however, Action Plan monitoring should be based on existing systems such as quarterly analysis of collected data through SIS, supervision and regular provincial reports analysis on the implementation of Maternal Health Programs, PAV, Nutrition, Malaria and HIV/AIDS, in MISAU, SETSAN in MINAG school feeding at the Ministry of Education, among others, including reports or planning meetings minutes, coordination meetings and training.

M&E will be defined based on the results that link the Objective of the Integrated Plan to Strategic Objectives and their Results. To measure, impact indicators, results, output, process and inputs will be defined according per level. These results will be produced through joint work after consultation with all other stakeholders and other sectors. This should be undertaken at the initial stage of Action Plan implementation to ensure all stakeholders agree and contribute in the design of M&E plan.

Verification Means: in the case of Impact Indicators at national level, Demographic Health Surveys and and/or MICS will be used to measure changes in the chronic malnutrition as well in intervention coverage. Major special attention will be given to measure height (or length) provided it is easy to wrongly measure length in children under 2 years of age therefore it is essential that all people taking anthrometric measurement be adequately trained through a standard protocol. This protocol will precisely measure those take measurements. For this, a national team will be set up with members from each province to ensure timely standardization and train people at district level on how to measure length.

Whilst the Action Plan' Strategic Objective is to ensure nutrition and food control, M&E plan will focus on Evaluation, prioritizing those that enable concrete evidences of interventions impact[1] [2], through strict effectiveness testing.[3] [4].

[1] Habicht JP, Victora CG, Vaughan JP. 1999 Evaluation designs for adequacy, plausibility and probability of public health programme performance and impact. Int J Epidemiol. 28(1):10-8.
[2] Victora CG, Habicht JP, Bryce J. 2004 Evidence-based public health: moving beyond randomized trials. Am J Public Health. 94(3):400-5.
[3] Shekar M, et al, Delivery sciences in nutrition. 2008. The Lancet, 371, 9626: 1751
[4] Heikens GT, Amadi BC, Manary M, Rollins N, Tomkins A. Nutrition interventions need improved operational capacity. Lancet. 2008 371(9608):181-2.

MONITORING & EVALUATION PLAN - INDICATORS

STRATEGIC OBJECTIVE No 1: Activities with impact on teenager's nutrition status strengthened

KEY OUTPUTS	INTERVENTION/ACTIVITY	INDICATORS	TARGETS	INFORMATION SOURCE	NOTES AND REMARKS
Result 1.1. Aneamia controlled among teenagers (10-19 years old) within and out of schools					
Female teenagers with supplementation with iron and folic acid	Undertake supplementation supervision with iron and folic acid to female teenagers in schools	% of female teenagers with supplementation in schools % of students dewormed in schools % of students with knowledge about aneamia and nutrition	Aneamia in teenagers reduced in 50% in 2015 and more than 50% in 2020 100% of secondary schools covered in the first year and every year successively	A baseline study on aneamia prevalence among teenagers and their awareness level carried out in the first year at provincial level. The study will be repeated every four years Quarterly teachers reports in collaboration with Provincial and District Health Directorates Annual meetings at provincial level	These activities are widely in the Integrate Plan Package for the Achievement of the Millennium Development Goals 4 and 5 However, aneamia missing as an impact indicators. Aneamia survey undertaken as part of MICS and/or DHS
Teenagers timely dewormed	Undertake supervised deworming of teenagers on a biannual basis				
Teenagers trained in aneamia	Students trained on the danger of aneamia, its causes, relation to chronic malnutrition, maternal mortality and cognitive function				

KEY OUTPUTS	INTERVENTION/ACTIVITY	INDICATORS	TARGETS	INFORMATION SOURCE	NOTES AND REMARKS
Out of school teenagers treated timely	Build capacity of teenagers in schools to help identify teenager in their communities (out of school) and undertake peer education and make linkages between health services and their communities Provide supplementation, deworm and train out of school teenagers through Health Units, SAAJs and mobile brigades	% of teenagers trained % of teenagers trained that carry out community peer mobilization	Number of Health Units with SAAJ increased to 260 in 2010 to 500 in 2015 and defined in 2020	Food Security and Nutrition program reports	
Result 1.2.Early pregnancy reduced among teenagers (10-19 years old)					
Use of any pregnant prevention method by female teenagers (10-19 years old)	Provide counselling (including on early pregnancies risks) and contraceptives methods to teenagers through Health Units, SAAJs and APEs	% of male teenagers counselled and using contraceptive method % of female teenagers and using any contraceptive method % of teenagers with early pregnancy counselled	Number of health units with SAAJ increased to 260 in 2010 to 500 in 2015 and defined in 2020 By 2015, 60% of female teenagers using any contraceptive method and 85% in 2020	Reports of SEA programs	
Early teenagers marriages reduced	Education campaigns for the general public (women' day, mother's day, etc.) to raise public awareness on the negative implications of early pregnancy	% of campaigns carried out % of girls <18 married	At least 1 campaign/year At least 1 local leader addressing this	Government reports	

KEY OUTPUTS	INTERVENTION/ACTIVITY	INDICATORS	TARGETS	INFORMATION SOURCE	NOTES AND REMARKS
	Mobilize local leadership through advocacy in provincial and district assembly sessions to support awareness among people on the problems of early marriage		issue in community meetings/year		
Result 1.3. Nutrition education in different education levels as part of curriculum, including alphabetization curricula strengthened					
Teenagers trained in nutrition	Nutrition and health included in education curricula Materials for teachers and students developed Train trainees and teachers through education institutions	Education materials developed and available in Health Units % of trained teachers % of teenagers who understand nutrition related issues	Education material developed in the first year 50 teachers trained every year in every province in the first five years	SEA program reports	
Schools undertake nutrition education encouraging school gardening	Teenagers trained to grow and care for a part of school gardens for several weeks Teenagers trained on nutrition value of vegetables and their importance, specially, for pregnant women, lactating women and prevention of chronic malnutrition	% of schools with gardens % of schools utilizing school garden products for school feeding	50 schools/year receive needed technical support and materials for school gardening		

STRATEGIC OBJECTIVE No 2: Interventions with impact on health and nutrition of fertile women prior and during pregnancy and lactation strengthened

KEY OUTPUTS	INTERVENTION/ACTIVITIES	INDICATORS	TARGET	INFORMATION SOURCE	NOTES AND REMARKS
Result 2.1. Anaemia and micronutrients deficiencies reduced prior and during pregnancy and lactation					
Every women takes a minimum of 180 capsules of micronutrients during pregnancy and 90 capsules of micronutrients after delivery	Ensure supplementation with multimicronutrients capsules to pregnant women (180 capsules) and post delivery (90 capsules) through health services Active search in communities by APEs to identify women at early stages of pregnancy and refer them to prenatal consultation Weekly delivery of capsules of micronutrients to pregnant women by APEs Sensitize pregnant women through APEs to regularly take capsules of micronutrients	% of pregnant women receiving multimicronutrients during pregnancy % of pregnant women who take multimicronutrients during pregnancy % of pregnant women with anaemia Rates of haemoglobin (Hg) in pregnant women who attend prenatal consultations	That 50% of women receive multimicronutrients during pregnancy in the first year instead of iron, folate , and 100% in the second year That 100 % of pregnant women receiving supplementation take a minimum of 90 micronutrients supplementation during pregnancy That 70% of post-delivery women receive vitamin A supplementation in 2015 and 90% in 2020 % of pregnant women with anaemia reduced to 30% in 2015 and 15% in 2020 That 100% of pregnant women	A baseline study on anaemia prevalence carried out in both pregnant and non pregnant women including question on whether they took iron, folate, multimicronutrients, and/or vitamin A representative at provincial level in the first year with repeat every four years SIS Nutrition Programs	These activities are widely in the Package and Integrate Plan for Achievement of Objectives 4 and 5 of the Millennium Development Goals. Multimicronutrients should be kept as replacement to iron, and folate. However, anaemia missing as impact indicator Anaemia survey should be undertaken as part of MICS and/or DHS

			in prenatal consultation taking haemoglobin (Hg) analysis		
All post-delivery women take one capsule of vitamin A	Undertake supplementation with vitamin A for post-delivery women including women who had home or institutional delivery	% of post-delivery women who received supplementation with vitamin A	80% post-delivery women	SIS Nutrition Program	
Mother do not get pregnant prior to 2 years	Provide counselling and contraceptive methods in health units to control spacing between pregnancies, during 2 years after the first delivery	% of women who get pregnant within 2 years after the first delivery Rates of Hg in non pregnant fertile women	MISAU		
Result 2.2. Infections controlled prior and during pregnancy and lactation					
All mothers take multimicronutrients supplementation and take needed measures to control infections that	Undertake deworming in pregnant women in health units through APEs	% of pregnant women dewormed		DHS/MICS SIS	All these activities and interventions are covered by action plans for
	Provide Intermittent Preventive Treatment (ITP) of malaria during pregnancy	% of pregnant women in prenatal consultation			

cause aneamia	Distribute mosquito nets treated with long lasting insecticides and promote their utilization Antiretroviral treatment (ART) for women living with HIV/AIDS	% of pregnant women in prenatal consultation with infection (STI, intestinal parasites, HIV) receiving treatment			malaria and HIV
	Treat Sexually Transmitted Infections if needed	% of pregnant women in prenatal consultation receiving ITP of Malaria % of pregnant women using mosquito nets treated with long lasting insecticides			
Result 2.3. Weight gain during pregnancy increased					
Pregnant women adequately counselled on prenatal consultations and supplementation if needed	Control weight gain during pregnancy, in prenatal consultations through weight gain record in graphic form and counselling on adequate weight gain	% of human resources with the ability to control and counselling on weight gain of pregnant women % Health Units controlling weight gain among pregnant women	20% d of districts in all provinces in the first year and 20%/year up to 100% 20% of midwives trained every year with a weekly course All midwives trained		

	Provide food supplementation to all pregnant women during 6 months in the selected districts (initially, 2 districts will be covered in the provinces with the highest low birthweight).	% of pregnant women receiving food in the selected districts	All women supplemented		

STRATEGIC OBJECTIVE No 3: Children-oriented nutrition activities strengthened in the first two years of age

KEY OUTPUT	INTERVENTION/ACTIVITY	INDICATORS	TARGETS	INFORMATION SOURCES	NOTES AND REMARKS
Result 3.1. All mothers ensure Exclusive Breastfeeding in the first six months of a child's life					
Health Units and communities sensitized, equipped and capacitated to promote and support Exclusive Breastfeeding during the first 6 months	Train midwives including traditional midwives on how to support a mother to ensure exclusive breastfeeding during the first six months	% of mothers trained on exclusive breastfeeding % of midwives trained providing adequate support to ensure exclusive breastfeeding among mothers % of community leaders trained in exclusive breastfeeding % of community leaders mobilizing and supporting mothers to ensure exclusive breastfeeding % of existing groups of support mothers % of < 6 months of age children exclusively breastfed	20% of districts in all provinces in the first year and 20%/year up to completion of 100% 20% of midwives trained every year with a one week course All midwives trained with a one week course	Program report DHS/MICS	
	Support mothers and the new-born to ensure exclusive				

	breastfeeding through APEs Set up group mothers in communities to support other mothers with children under 6 months of age in exclusive breastfeeding of their children.				
Labels of follow-up forms, feeding-bottles sold within the country in compliance with the Code of Marketing of Breast-milk Substitutes Lack of promotion materials of child forms in health units and society as a whole	Undertake regular and systematic monitoring of substitutes to breast milk	% of infringements to the Code documented % infringements to the Code penalized	Annual inspections at 20% of the health units in every province/year	Program report	
Result 3.2. All children aged between 6 - 24 months of age receiving adequate complementary food					
All children in compliance with standard adequate growth between 6 to 24 months of age	Strengthen nutrition counselling capacity within children's services including food preparation demonstrations based on the local foods	% of children between 6-24 months of age with stunting or below the red line in the growth graphic % of children with wasting % of children with stunting % of children between 6-24 months who received nutrition	All children All children All children in selected districts	Nutrition program report DHS/MICS Evaluation studies in selected districts with basal line and repeated on annual basis Start with piloting in	

		supplements % of children between 6-59 months of age who received 2 doses of vitamin A % of children between 12-59 months deformed		year 2 in 2 districts in 3 provinces with and compare them with districts with supplements	
	Quarterly provision of fortified nutrition supplements to all children from 6 to 24 years of age				
	Biannual provision and supplement with vitamin A to all children between 6-59 months of age in health services through APEs and mobile brigades				
	Biannual deforming of all children between 11-59 months of age in health services through APEs and mobile brigades				

STRATEGIC OBJECTIVE No 4: Household-oriented activities to improve high value nutrition food access and utilization strengthened

KEY PRODUCTS	INTERVENTION/ACTIVITY	INDICATORS	TARGETS	INFORMATION SOURCE	NOTES AND REMARKS
Result 4.1. High nutrition value foods locally produced and utilized by poor households					
Production and consumption of high value nutrition foods increased	Undertake research on nutrition value of agriculture products including wild foods and promote those with high nutrition value Promote high nutrition value food production through agriculture extension system Promote nutrition education and food preparation demonstrations (including food processing) as part of agriculture extension system	Nr of high nutrition value foods identified % of households utilizing on a regular basis foods identified with high nutrition value % of communities benefiting from nutrition education activities and food preparation % of households that participated in education activities and changed their food habits	A research in each district to determine foods to be promoted Train extensionists from 30 districts to promote production of these foods, preparation and storage	Program report and annual meeting reports to review progress Initial and final surveys to assess changes in food production and consumption by poor households	
Result 4.2: Strengthen the capacity of household vulnerable to Nutrition and Food Insecurity on appropriate food processing and storage					
Households vulnerable to nutrition and food insecurity trained to improve food processing, storage and utilization	Build the capacity of households members on improved practices of food processing and storage, including hygiene and food security related issues Improve food storage conditions	% of capacity building courses undertaken % of households vulnerable to nutrition and food insecurity that participate in the course % of households vulnerable to nutrition and food insecurity that participated in the	Extensionists trained in 20 districts by province, every year in five years 20 community meetings in every district/year	Program report	

KEY PRODUCTS	INTERVENTION/ACTIVITY	INDICATORS	TARGETS	INFORMATION SOURCE	NOTES AND REMARKS
		course to improve food processing and storage			
Result 4.3. Households vulnerable to nutrition and food insecurity with access to support services and social protection to ensure sufficient and diversified foods among pregnant, lactating women, teenagers and children between 6-24 months of age.					
Nutrition and food Security of households vulnerable to nutrition and food insecurity increased	Income transfer (cash) to the poorest households with teenagers, children or pregnant and lactating mothers	%of households benefiting from income transfer % of female teenagers vulnerable to nutrition and food insecurity consuming animal products on a regular basis during pregnancy and lactation	MIMAS MINAG and MISAU staff from 30 districts trained so that MIMAS provides funding to selected households by MINAG provided they ensure birth control along with MISAU All low income households with female teenagers with incentives and technical assistance covered	Program reports	
	Provision of funding for small animal breeding to low income households with female teenagers under condition to reduce spacing between pregnancies and ensure that they do not get pregnant during their adolescence				
	Provision to teenagers with children with needed subsidies to grow small animals (cages, eggs, hens, chick feed, among others				
	Technical assistance to grow small animals				
Result 4.4. Fortified food consumption and supply in communities, in particular iodated salt, strengthened					
Communities mobilized to regularly consume iodated salt	Sal testing by APEs in pregnant and lactating women to check whether salt is iodated	% of households that consume iodated salt	Build the capacity of all Health Units in all 20 districts	Baseline survey in targeted districts annually	

KEY PRODUCTS	INTERVENTION/ACTIVITY	INDICATORS	TARGETS	INFORMATION SOURCE	NOTES AND REMARKS
	Testing of salt used by students in schools Advocacy with community leaders to support promotion of iodated salt in communities		to undertake the work in year 1 That 80% of covered houses in the districts use adequately iodated salt	Program report	
Availability of good quality iodated salt in the market increased	Increase salt supervision in the market and factories, including inspections with penalties in case of infringements Support producers to ensure salt is iodated	% of available salt in the market (formal or informal) adequately iodated	Salt in the market tested in every district on a monthly basis All infringers penalized	Program report	
Foods fortified with essential micronutrients available in the market	Set up a technical group and a National Fortification Committee to coordinate strategic documents development, select foods to fortify and micronutrients to add at set out regulation and standards for fortifications Support millers and other selected food producers Set up supervision methods of food fortification process in Mozambique	Regulation and standards for food fortification set up % of selected food processing Industries/Factories that fortify in compliance with the standards set out	20% in year 1, 50% in year 2 and 100% in year 3 of production	Program report	
Result 4.5. Basic sanitation in the poorest households houses with female teenagers, pregnant and lactating women and children under 2 year old ensured					
Latrine use and hand washing after their utilization by female teenagers , pregnant and lactating women increased	Community mobilization for construction of latrines and their adequate utilization Promotion of good hygiene practices through lectures and theatres on personal hygiene	% of household with latrines within their homes % of household with	Implement at 100% 260 Health Units with SAAJ and increase to 500 in 2015 and	Baseline survey and program report	

KEY PRODUCTS	INTERVENTION/ACTIVITY	INDICATORS	TARGETS	INFORMATION SOURCE	NOTES AND REMARKS
	Provision of support materials for building of latrines	latrines in their houses and wash hands after their utilizations	to be defined in 2020		

STRATEGIC OBJECTIVE No 5. Human resources capacity in nutrition strengthened

KEY OUTPUTS	INTERVENTION/AACTIVITIES	INDICATORS	TARGETS	INFORMATION SOURCE	NOTES AND REMARKS
Result 5.1. Human resources responsible for nutrition a national, provincial and district level capacitated					
Training materials and capacity building methods set up Nutrition staff with the capacity to manage adequately nutrition activities	Review Terms of Reference of staff responsible for nutrition in every national, provincial and district sector	Training materials developed Capacity building methods set up Capacity building courses undertaken	100% in year 1	Program reports	
	Design adequate curricula to train staff responsible for nutrition at national, provincial and distil levels				
	Develop training materials and capacity building methods for national, provincial and district staff				
	Identify teachers to lecture capacity building courses				
	Undertake capacity building courses in nutrition				
Result 5.2. Health, food security and education sectors professionals trained in food and nutrition					
Training materials and capacity building methods set up Health professionals, food security and education with the ability to undertake counselling and nutrition activities	Develop training materials and on the job training capacity building methods on nutrition for provincial and district health, food security and education sector staff	Training material developed Capacity building methods set up % of capacity building courses undertaken % of health, food security and education staff trained	100% in year 1	Program report	
	Design on the job training capacity building curricula for health, food security and education sectors professionals				
	Undertake on the job training courses on nutrition to health, food security and education sectors professionals				

	Carry out on the job training on nutrition to nurses and midwives in the Health Units				

STRATEGIC OBJECTIVE No 7: Food and nutrition control system strengthened

KEY OUTPUT	INTEVENTION/ACTIVITY	INDICATORS	TARGETS	INFORMATION SOURCES	NOTES AND REMARKS
Result1. Adequate management of Nutrition and Food Security activities at different levels (national, provincial and district).					
Create a food and nutrition control system that provides reliable information on Food Security and Nutrition on a timely regular basis	Extend nutrition survey sentinel posts to all districts and all Health Units that control growth Strengthen at all levels the ability to collect, analyze and report Food Security and Nutrition data, ensuring its use for policy/strategy and policy design	Review undertaken % of people trained on food security and nutrition data collection, analysis and reporting by province/district % of regular reports generated by MISAU or SETSAN	Resources for activities undertakings	100% in year 1	Program reports
Result 1.2. Disaggregate and timely information available in country on Food Security and Nutrition improved					
Regular and timely availability of information on Food Security and Nutrition at all levels and for every one	Set up a national database for Food and Security and Nutrition Identify\Create a *website* to facilitate communication of information on Food Security and Nutrition	Functional database on Food Security and Nutrition and information shared among different stakeholders Nr of indicators included in the database	Resources to carry out activities	100% in year 1	Program reports

ANNEXES

Annex 1. Essential Nutrition Interventions Package (INE) of "Lancet Nutrition Series" and its implementation strategies to ensure "follow-up care" from birth to 2 years old

The Essential Nutrition Interventions Package is divided in three parts. The first refers to interventions with sufficient evidences to be implemented in all regions with child and maternal malnutrition problems. The second is related to interventions that can be effective dependent on local conditions. The third part outlines interventions that are not part of the Essential Nutrition Interventions Package of Lancet *Nutrition Series*, however recommended for their inclusion in Mozambique.

1. INTERVENTIONS WITH SUFFICIENT EVIDENCES FOR NATIONWIDE EXECUTION		
Intervention	Coverage in Mozambique	Source
Pregnant and post-delivery woman		
Supplement with iron and folic acid	No data	
Supplement with multimicronutrients	X	
Regular consumption of iodated salt	58%	MICS2008
Supplement with calcium	X	
Intervention leading to reduction of smoking	X	
New-born		
Promotion and support to breastfeeding (individual and group counselling)	63% during the 1st hour 88% in the first days	MICS2008
Children (babies and in childhood)		
Promotion of exclusive breastfeeding during the first 6 months (individual and group counselling)	37%	MICS2008
Promotion and adequate complementary food support (at least 3 meals between 9 and 11 months)	37%	MICS2008
Treatment of diarrhoea with zinc	To be initiated	
Supplement with vitamin A	72%	MICS2008
Regular consumption of iodated salt	58%	MICS2008
Interventions promoting hygiene and washing hands	On-going	
Treatment of acute malnutrition	On-going	

2. INTERVENTIONS FOR AGREEMENT EXECUTION WITHIN THE LOCAL CONTEXT		
Intervention	Coverage in Mozambique	Source
Pregnant and post-delivery woman		
Supplement with good diet in protein and energy to mothers*	Not yet a routine	
Pregnant women deworming	37%	MISAU 2009
Intermittent Preventive Treatment of Malaria (IPT) during pregnancy **	54,6%	MISAU 2009
Distribution of mosquito nets treated with insecticides **	30,7%	MICS 2008
New-born		
Post-delivery supplement with vitamin A	75,8%	MISAU 2009
Delay in ligature of umbilical cord	Not yet a routine	
Children (babies and in childhood)		
Promotion of adequate complementary food (at least 3 meals between 9 and 11 months) with distribution of food supplements or "conditional income transfer " ***	X	
Deworming	95%	MISAU 2009
Fortification programs or supplement with iron	X	
Distribution of mosquito nets treated with insecticides**	22,8%	MICS2008

x – Non-existent in Mozambique

*Recommendation by WHO to locations where 15% of babies are born with low weight or where 20% of productive women have a Body Mass Index above 18.5 Kg/m^2.
** For populations where malaria endemic.
*** For population with food insecurity.

3. SPECIFIC INTERVENTION IN MOZAMBIQUE		
Intervention	Coverage in Mozambique	Source
Teenagers		
Birth control among teenagers	44% of teenagers are mothers	MICS2008
Anaemia control	X	
Strengthen nutrition education in schools	X	

3. SPECIFIC INTERVENTIONS IN MOZAMBIQUE		
Intervention	Coverage in Mozambique	Source
Population		
Increase high nutrition value local food production and utilization	X	
Increase poor households ability for local food processing and storage	X	
Ensure basic sanitation among poor households with female teenagers, pregnant and lactating mothers and children under 2 years old	X	

x – Non-existent in Mozambique

Effective interventions have a preventive feature and to ensure their efficiency, a high coverage (> 80% of target population) needs to be achieved, such as breastfeeding and supplement with micronutrients, iron and folic acid.
Higher coverage can be achieved through intervention extensions to communities, i.e., services should go to the communities and not the reverse.
The figure below shows 3 service provision models 1) health unit-based, 2) taken to communities on a regular basis, e 3) community-based[i].

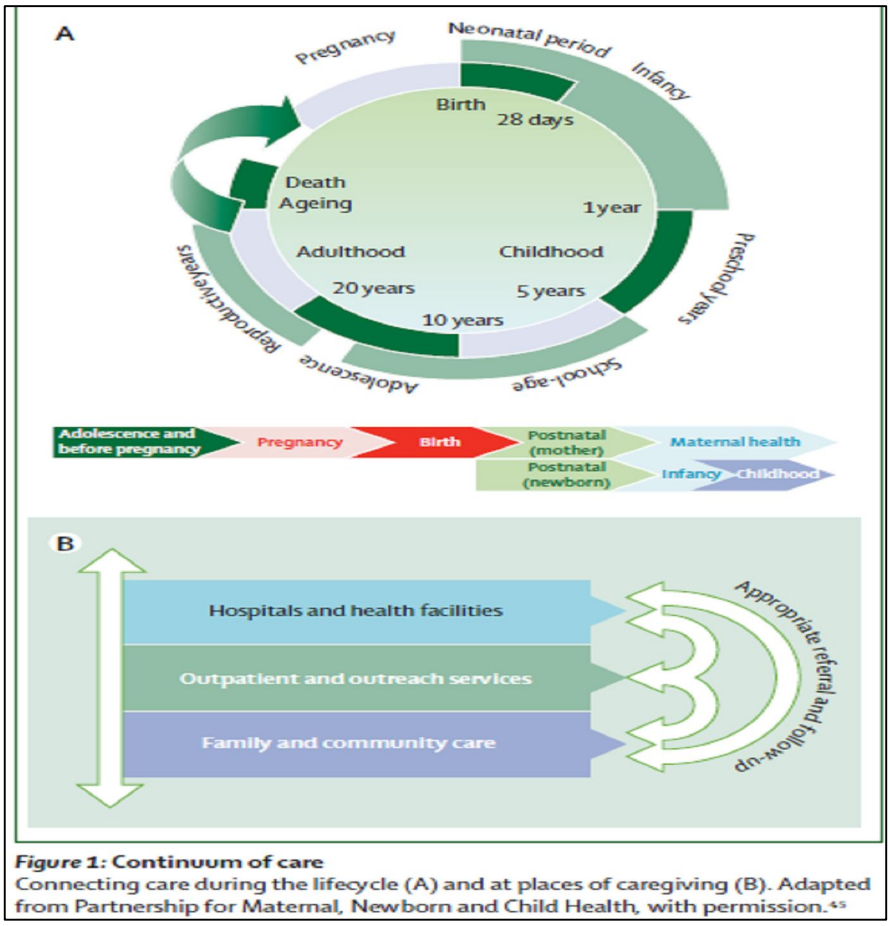


Figure 1: **Continuum of care**
Connecting care during the lifecycle (A) and at places of caregiving (B). Adapted from Partnership for Maternal, Newborn and Child Health, with permission.[45]

Among intervention recommended for Mozambique, many are under implementation through other programs therefore focus should be on those that are not under implementation and that are key to prevent chronic malnutrition.

Experiences from other countries suggest that it would be important that Mozambique uses multimicronutrients for mother supplementation during pregnancy instead of supplements with iron and folic acid currently used. Also, a recommendation exists for their use in emergency[73]. However, increasing coverage of this kind of supplement is a challenge that can be achieved through regular visits by Community Health Worker to pregnant women[74]. These community-based actions need to be integrated with treatment of infections undertaken in the health units[75]. It is believed that through this, supplement with multimicronutrients ensures weight increase at birth and improves the mother's nutrition status and significantly reduces maternal aneamia compared with women utilizing supplement with iron and folic acid[76]

However, some situations discouraging multimicronutrients utilization may prevail among young mothers. In these situations, prenatal death risk likelihood seem to be high[77] though not significantly as far as statistics are concerned, births need to be monitored and risks reduced through improvement in care during birth. In Indonesia, it has been demonstrated that supplement with multimicronutrients reduced early infant

mortality (lactating up to 90 days) at 18% in comparison with iron and folic acid[78]. Increasing utilization of *Skilled Birth Attendants* (SBA) during birth has reduced early child mortality at 30%, regardless on micronutrients supplement impact[79]. Therefore, should women take multimicronutrients supplement on a regular basis and use SBA during delivery, early child mortality could be reduced at 5%.

Food supplement during pregnancy needs to be provided to all mothers with a low birthweight above 15% in all districts under WHO recommendation.

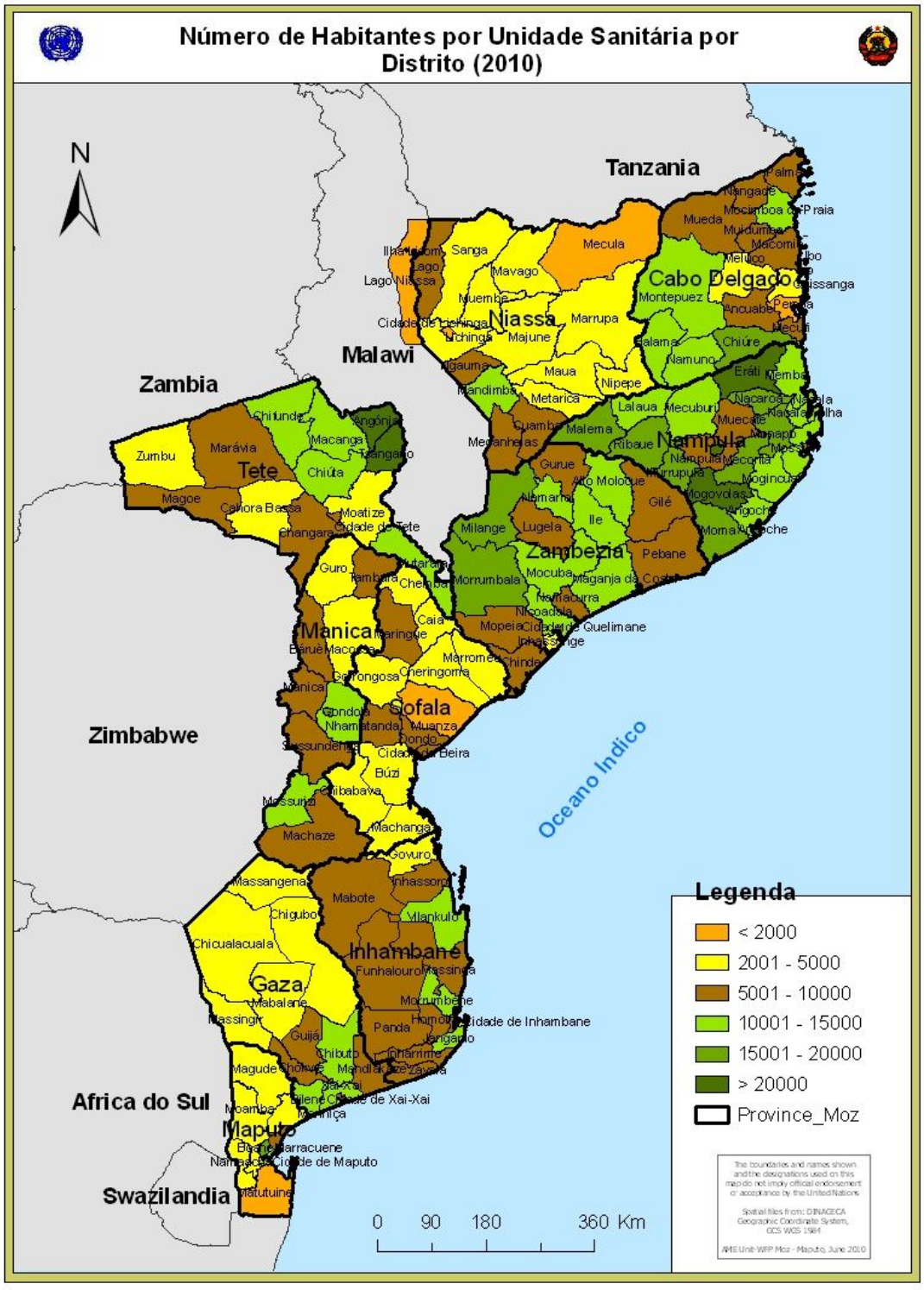
Therefore, food supplement for children between 6 and 24 months is more effective if provided to all children instead of the undernourished only[80]. These interventions need to be in districts with major food insecurity problems therefore, it is suggested that they also be implemented in districts with low birthweight above 15%, i.e., the same criterion for mother supplement.

Food supplements that can be used, at initial stage, are CSB (Corn Soy Blend) supplements that are energetically thick and fortified with micronutrients. But, other products need to be considered and tested based on fortified lipids and that have shown excellent results in reduction of low birthweight in other places[81.]

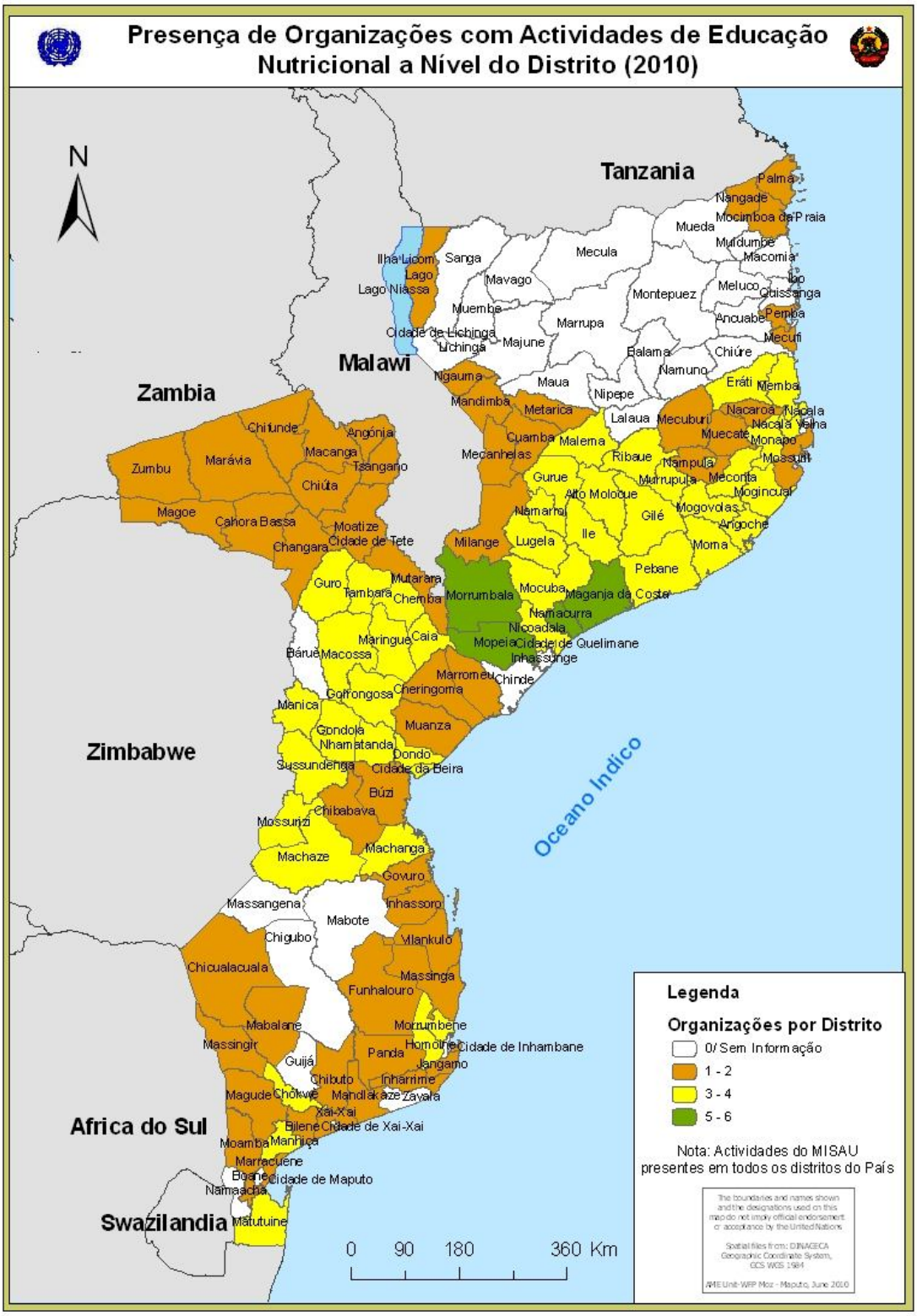
Key consideration would, probably, be to ensure that all interventions are undertaken as a package of continued care, i.e., from birth to 2 years of age.

Annex 2. MAPS AND TABLES OF EXISTING INTERVENTIONS MAPPING

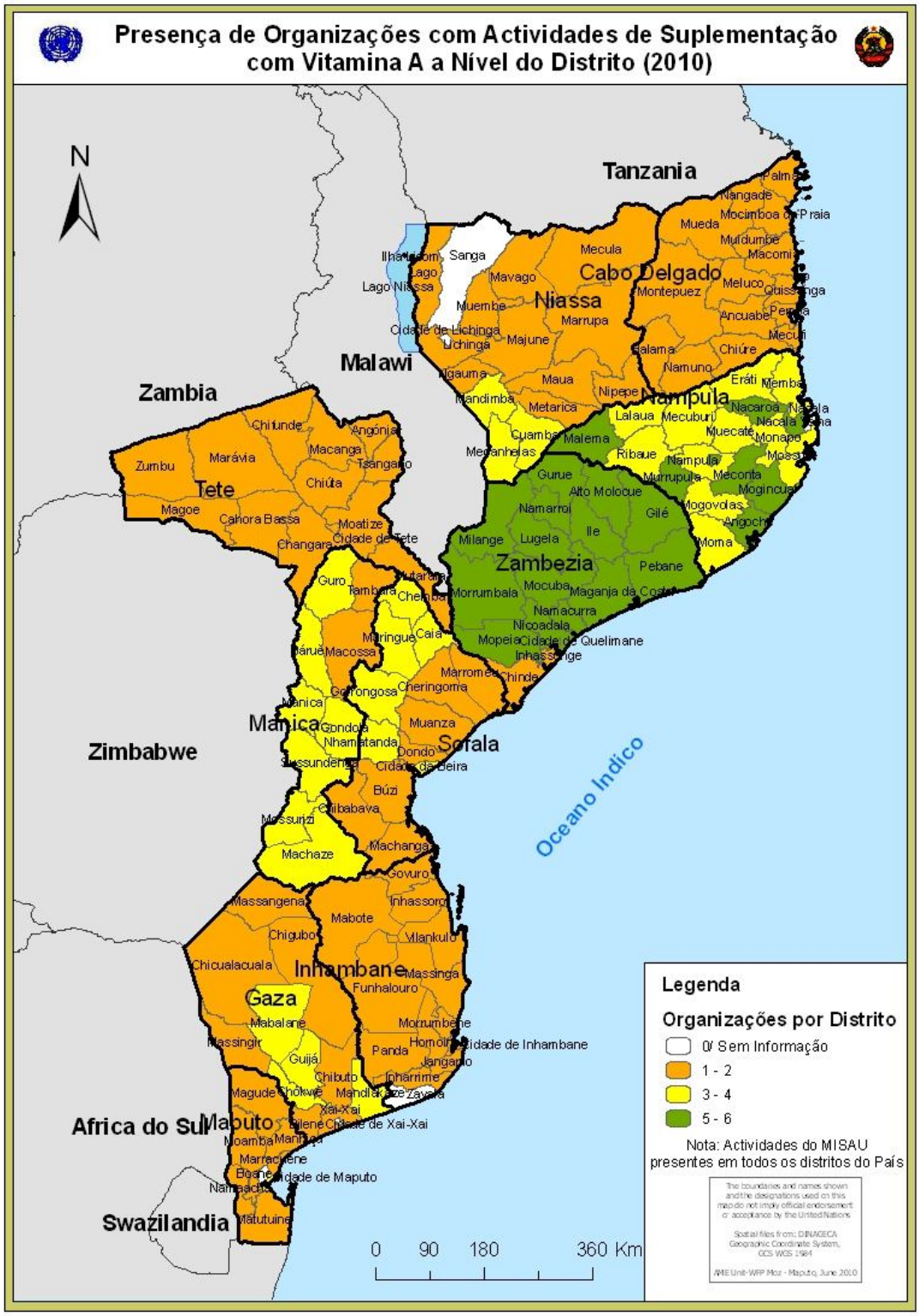
MAP 1



MAP 2


Presença de Organizações com Actividades de Educação Nutricional a Nível do Distrito (2010)
N
Tanzania
Malawi
Zambia
Zimbabwe
Africa do Sul
Swazilandia
Oceano Indico
Palma
Nangade
Mocimboa da Praia
Mueda
Muidumbe
Macomia
Mecula
Ilha Licom
Sanga
Lago
Lago Niassa
Mavago
Meluco
Ibo
Montepuez
Cabissanga
Muemba
Pemba
Ancuabe
Marrupa
Cidade de Lichinga
Lichinga
Majune
Mecufi
Balama
Chiúre
Namuno
Ngauma
Maua
Nipepe
Eráti
Memba
Mandimba
Metarica
Lalaua
Mecuburi
Nacaroa
Nacala
Nacala Velha
Muecate
Monapo
Cuamba
Malema
Mecanhelas
Ribaue
Nampula
Mossuril
Gurue
Murrupula
Meconta
Alto Molocue
Mogincual
Namarroi
Mogovolas
Gilé
Angoche
Ile
Lugela
Milange
Moma
Pebane
Mocuba
Maganja da Costa
Morrumbala
Mutarara
Guro
Tambara
Chemba
Namacurra
Nicoadala
Maringue
Caia
Mopeia
Cidade de Quelimane
Inhassunge
Bárue
Macossa
Marromeu
Chinde
Gorongosa
Cheringoma
Manica
Muanza
Gondola
Nhamatanda
Dondo
Sussundenga
Cidade da Beira
Búzi
Chibabava
Mossurizi
Machaze
Machanga
Govuro
Massangena
Inhassoro
Mabote
Chigubo
Vilankulo
Chicualacuala
Massinga
Funhalouro
Mabalane
Morrumbene
Massingir
Homoine
Cidade de Inhambane
Panda
Guijá
Jangamo
Chibuto
Inharrime
Magude
Chokwe
Mandlakaze
Zavala
Xai-Xai
Bilene
Cidade de Xai-Xai
Moamba
Manhiça
Marracuene
Boane
Cidade de Maputo
Namaacha
Matutuine
0 90 180 360 Km
Legenda
Organizações por Distrito
0/ Sem Informação
1 - 2
3 - 4
5 - 6
Nota: Actividades do MISAU presentes em todos os distritos do País
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
Spatial files from: DINAGECA Geographic Coordinate System, GCS WGS 1984
AME Unit-WFP Moz - Maputo, June 2010

MAP 3


Presença de Organizações com Actividades de Suplementação com Vitamina A a Nível do Distrito (2010)
N
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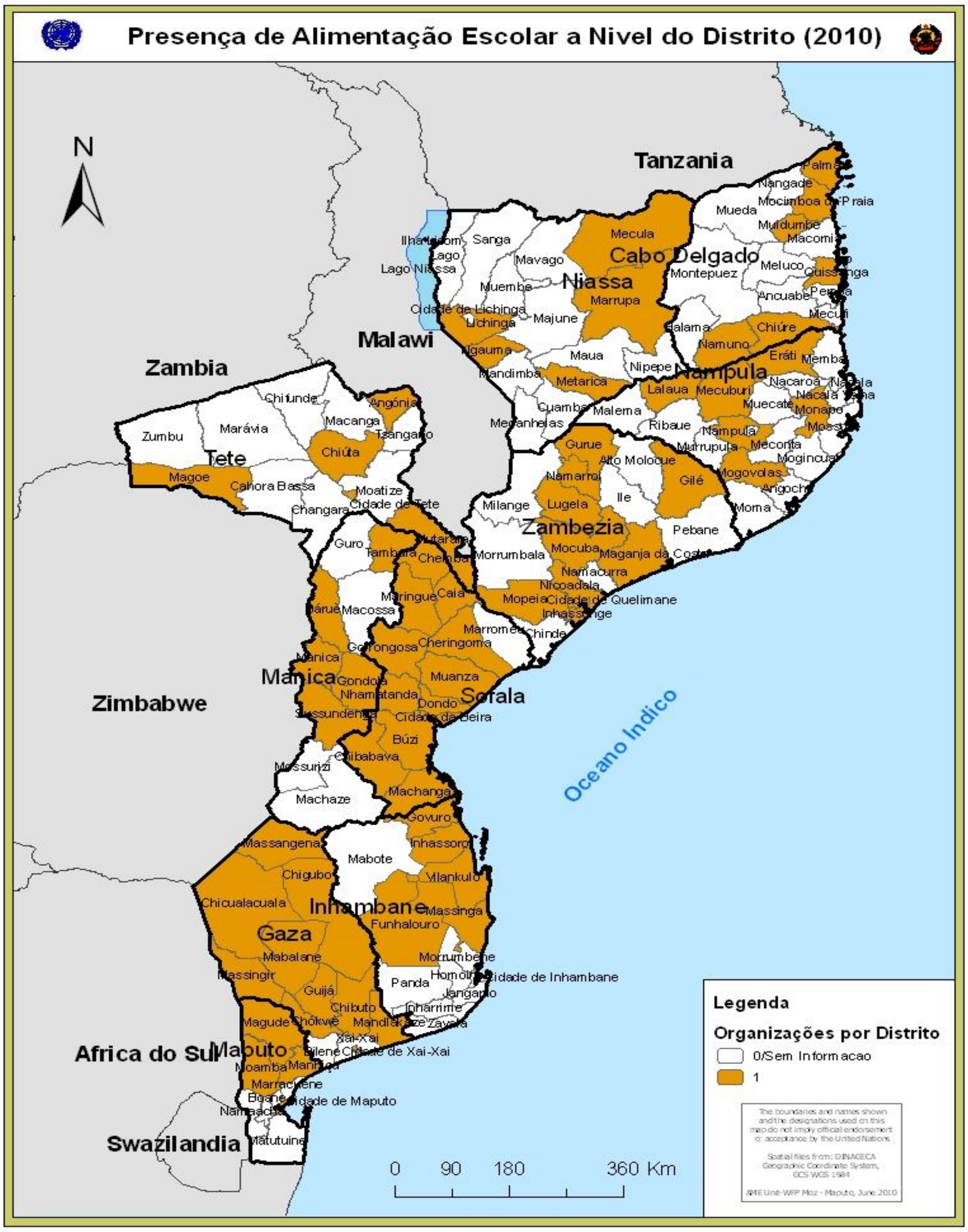
Malawi
Zambia
Zimbabwe
Africa do Sul
Swazilandia
Oceano Indico
Cabo Delgado
Niassa
Nampula
Zambezia
Tete
Manica
Sofala
Inhambane
Gaza
Maputo
Cidade de Maputo
Legenda
Organizações por Distrito
0/ Sem Informação
1 - 2
3 - 4
5 - 6
Nota: Actividades do MISAU presentes em todos os distritos do País
0 90 180 360 Km

MAP 4


Presença de Alimentação Escolar a Nivel do Distrito (2010)
N
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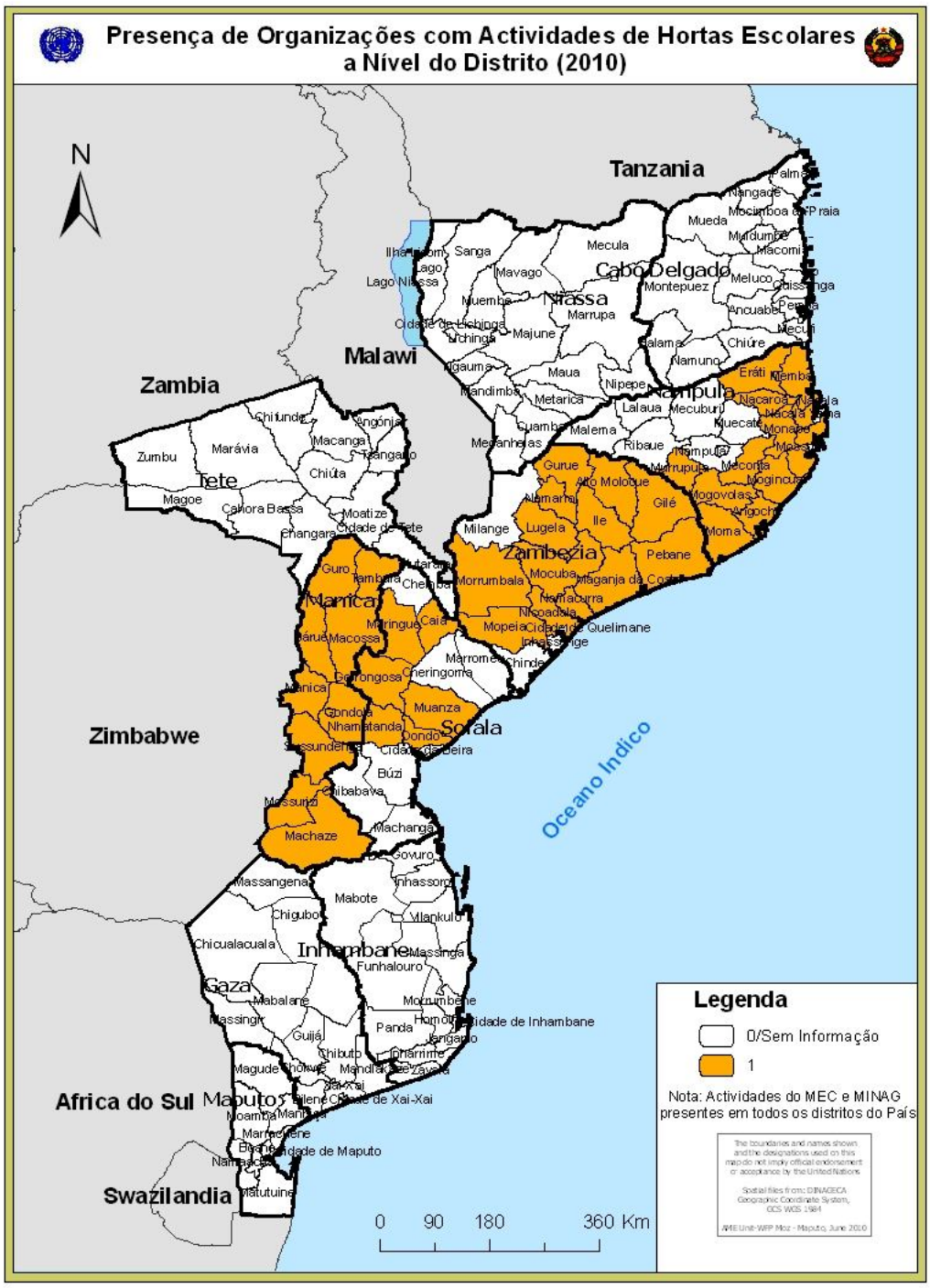
Malawi
Zambia
Zimbabwe
Africa do Sul
Swazilandia
Oceano Indico
Niassa
Cabo Delgado
Nampula
Tete
Zambezia
Manica
Sofala
Inhambane
Gaza
Maputo
Legenda
Organizações por Distrito
0/Sem Informacao
1
0 90 180 360 Km

MAP 5


Presença de Organizações com Actividades de Hortas Escolares a Nível do Distrito (2010)
N
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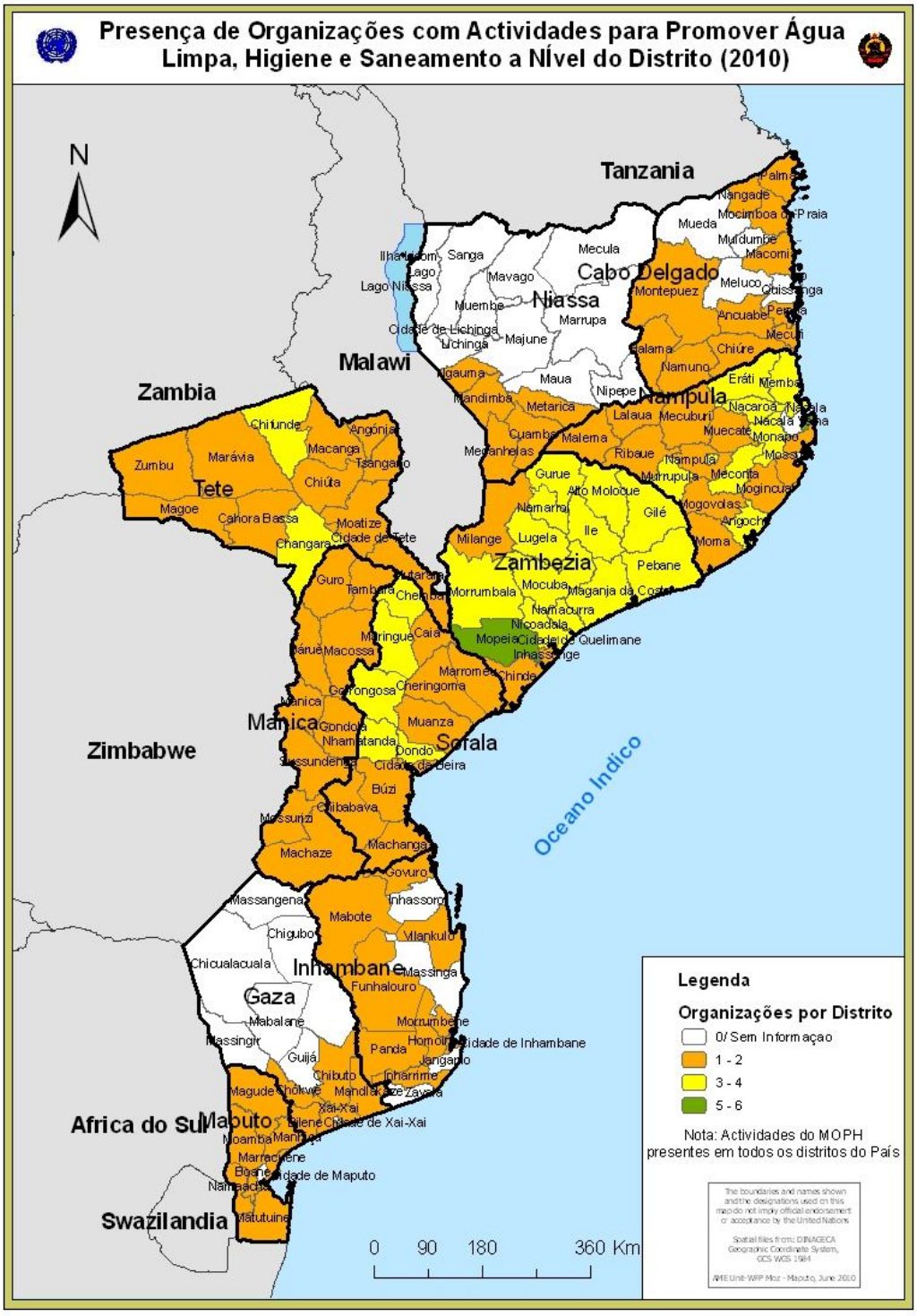
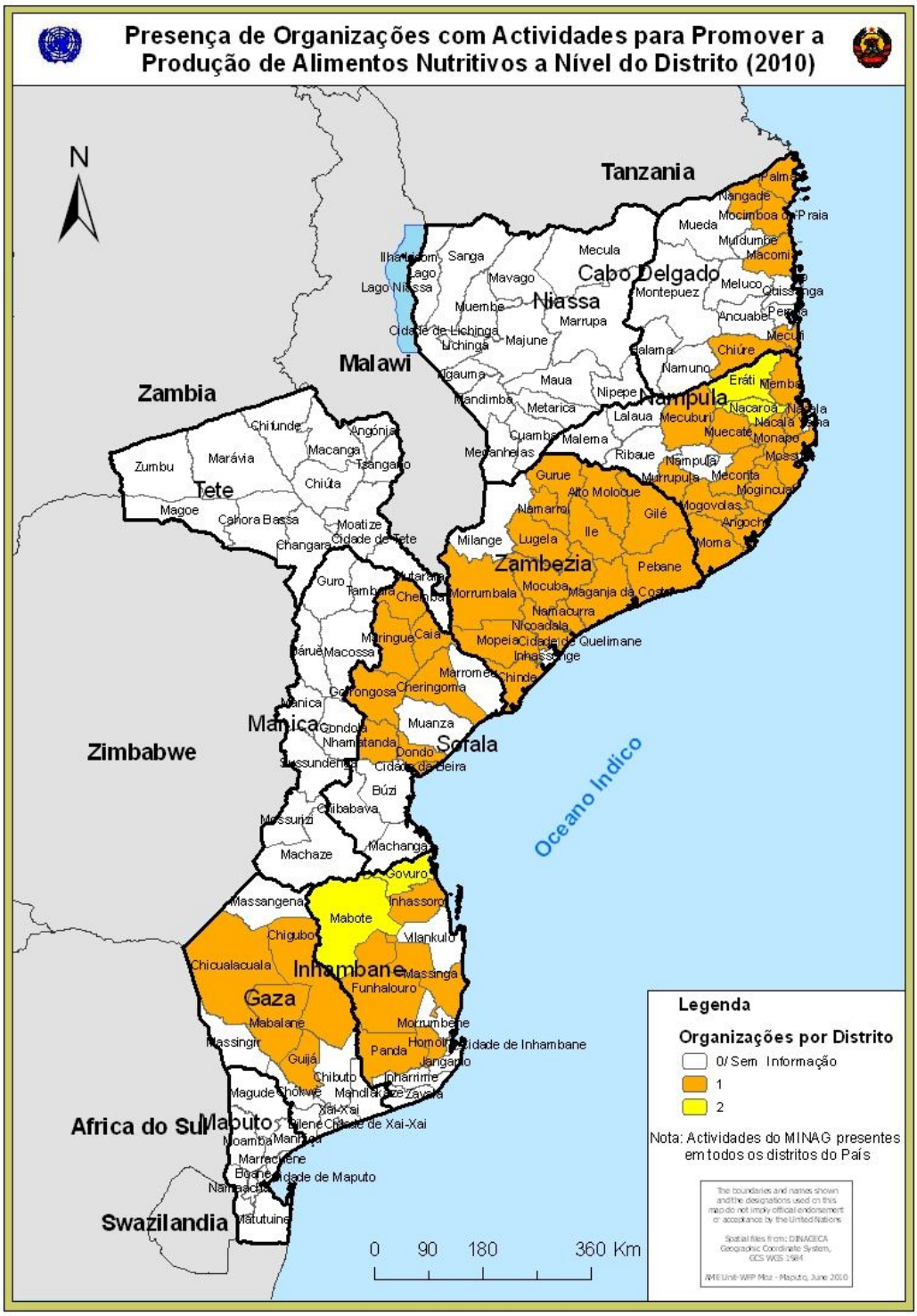
Malawi
Zambia
Zimbabwe
Africa do Sul
Swazilandia
Oceano Indico
Cabo Delgado
Niassa
Nampula
Zambezia
Tete
Manica
Sofala
Inhambane
Gaza
Maputo
Legenda
0/Sem Informação
1
Nota: Actividades do MEC e MINAG presentes em todos os distritos do País
0 90 180 360 Km

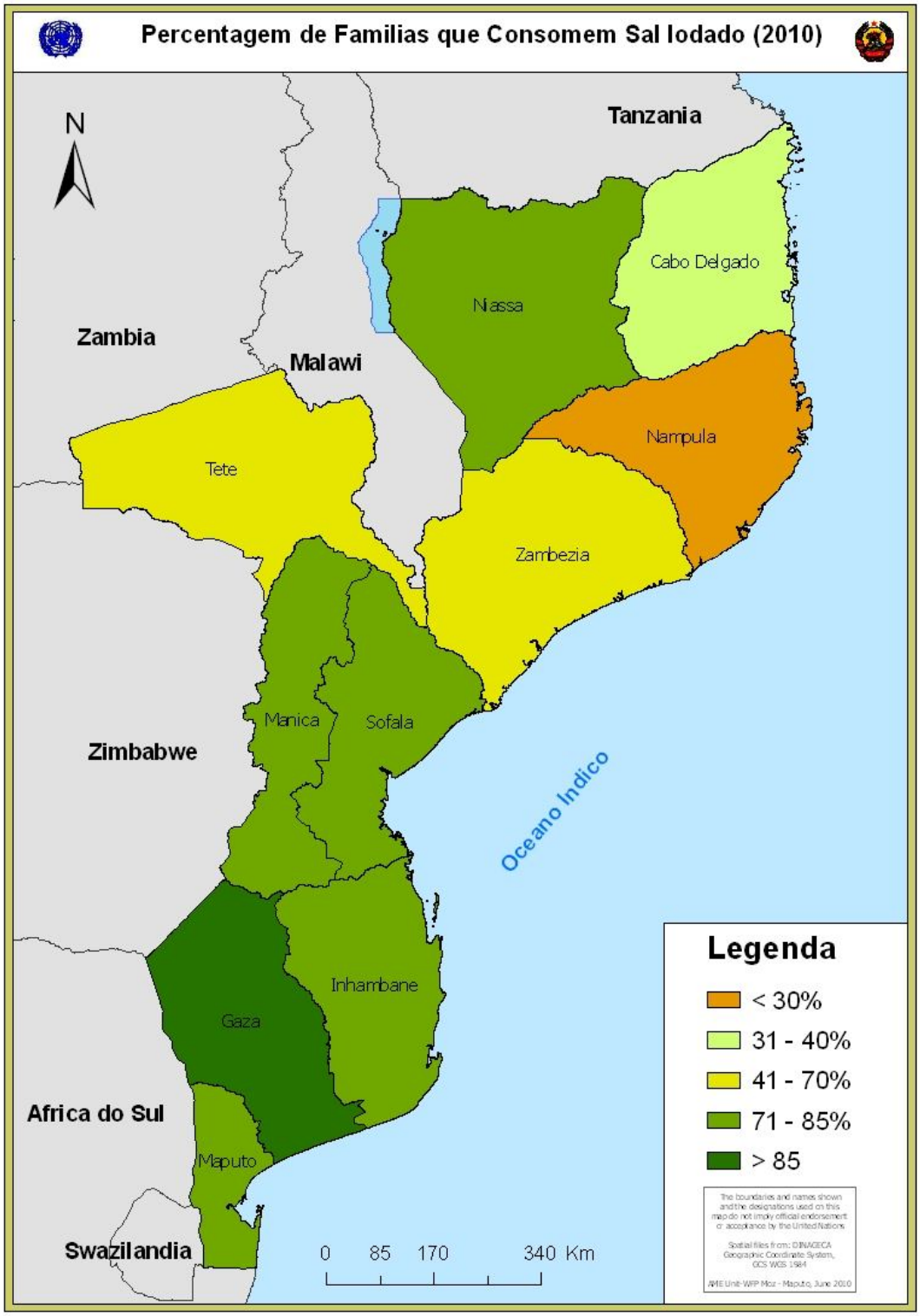
MAP 6


Presença de Organizações com Actividades para Promover Água Limpa, Higiene e Saneamento a Nível do Distrito (2010)
N
Tanzania
Malawi
Zambia
Zimbabwe
Africa do Sul
Swazilandia
Oceano Indico
Cabo Delgado
Niassa
Nampula
Tete
Zambezia
Manica
Sofala
Inhambane
Gaza
Maputo
Cidade de Maputo
Cidade de Beira
Cidade de Inhambane
Cidade de Quelimane
Cidade de Tete
Cidade de Xai-Xai
Legenda
Organizações por Distrito
0/ Sem Informaçao
1 - 2
3 - 4
5 - 6
Nota: Actividades do MOPH presentes em todos os distritos do País
0 90 180 360 Km

MAP 7


Presença de Organizações com Actividades para Promover a Produção de Alimentos Nutritivos a Nível do Distrito (2010)
N
Tanzania
Malawi
Zambia
Zimbabwe
Africa do Sul
Swazilandia
Oceano Indico
Cabo Delgado
Niassa
Nampula
Zambezia
Tete
Manica
Sofala
Inhambane
Gaza
Maputo
Cidade de Maputo
Cidade de Inhambane
Legenda
Organizações por Distrito
0/ Sem Informação
1
2
Nota: Actividades do MINAG presentes em todos os distritos do País
0 90 180 360 Km

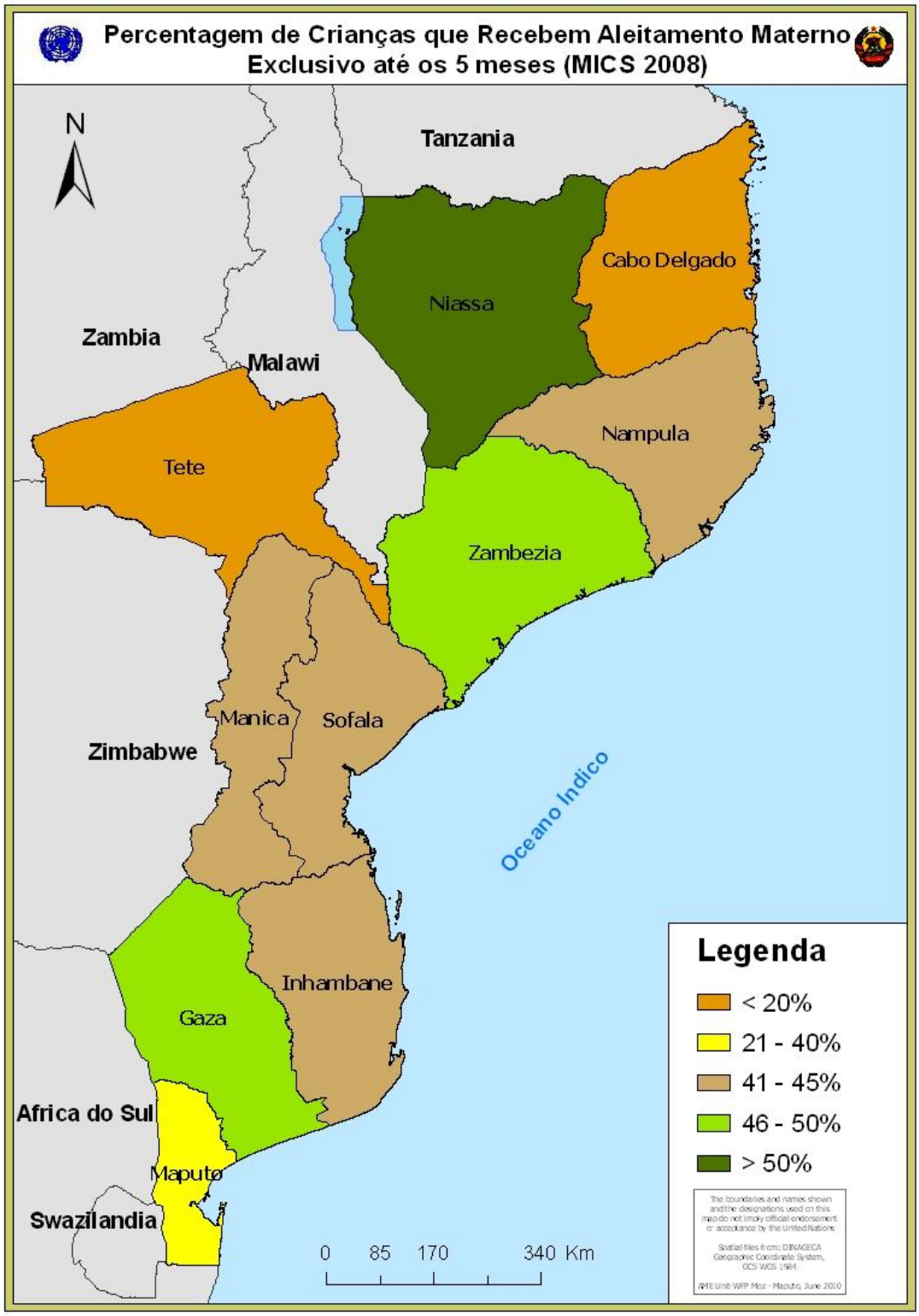
MAP 8


Percentagem de Familias que Consomem Sal Iodado (2010)
N
Tanzania
Cabo Delgado
Niassa
Zambia
Malawi
Nampula
Tete
Zambezia
Manica
Sofala
Zimbabwe
Oceano Indico
Inhambane
Gaza
Africa do Sul
Maputo
Swazilandia
0 85 170 340 Km
Legenda
< 30%
31 - 40%
41 - 70%
71 - 85%
> 85

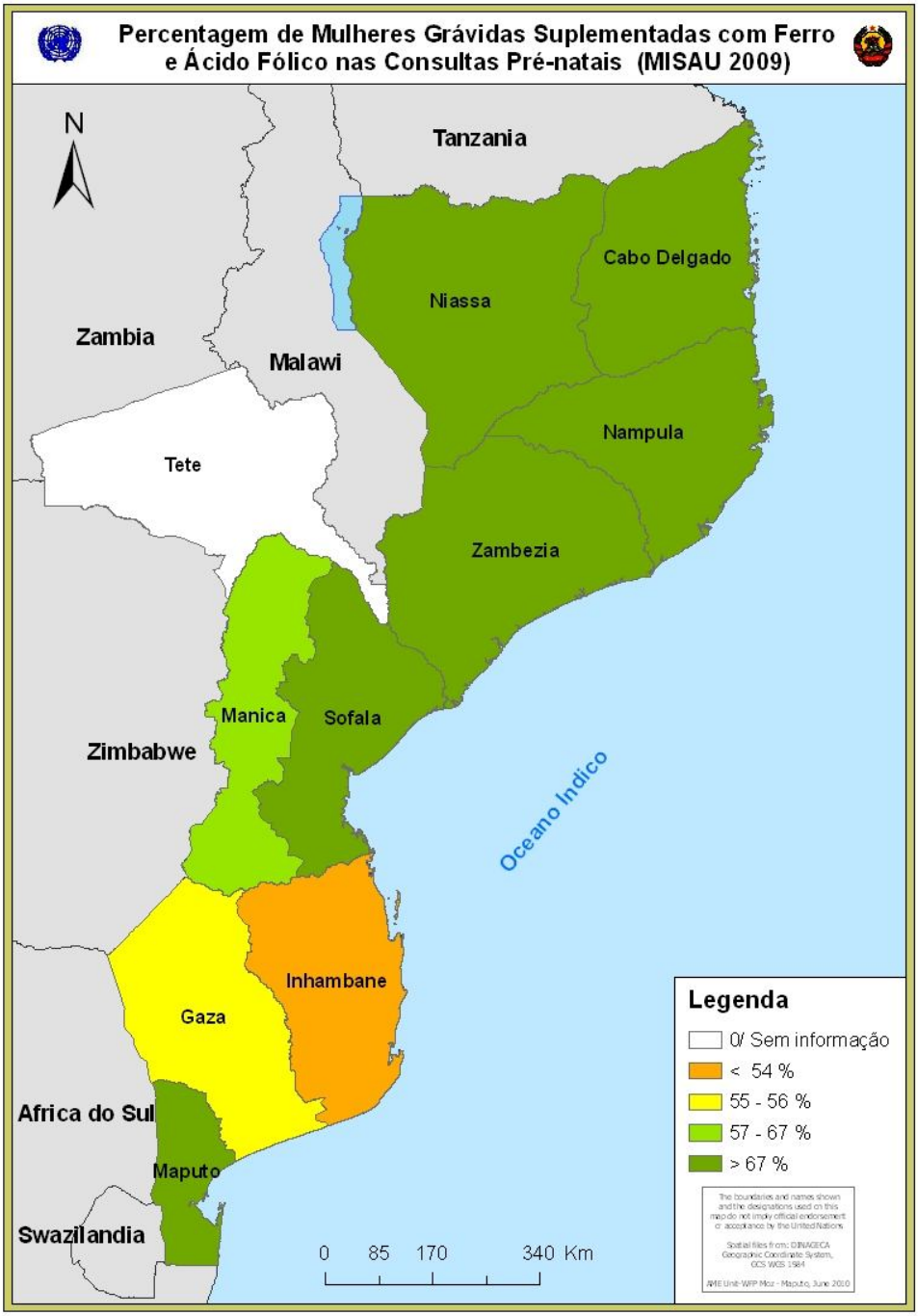
MAP 9


Percentagem de Crianças de 6 a 59 Meses Suplementadas com Vitamina A Durante a Semana Nacional da Saúde da Criança (MISAU 2009)
N
Tanzania
Cabo Delgado
Niassa
Zambia
Malawi
Nampula
Tete
Zambezia
Manica
Sofala
Zimbabwe
Oceano Indico
Inhambane
Gaza
Africa do Sul
Maputo
Swazilandia
0 85 170 340 Km
Legenda
< 97 %
98 %
> 99 %

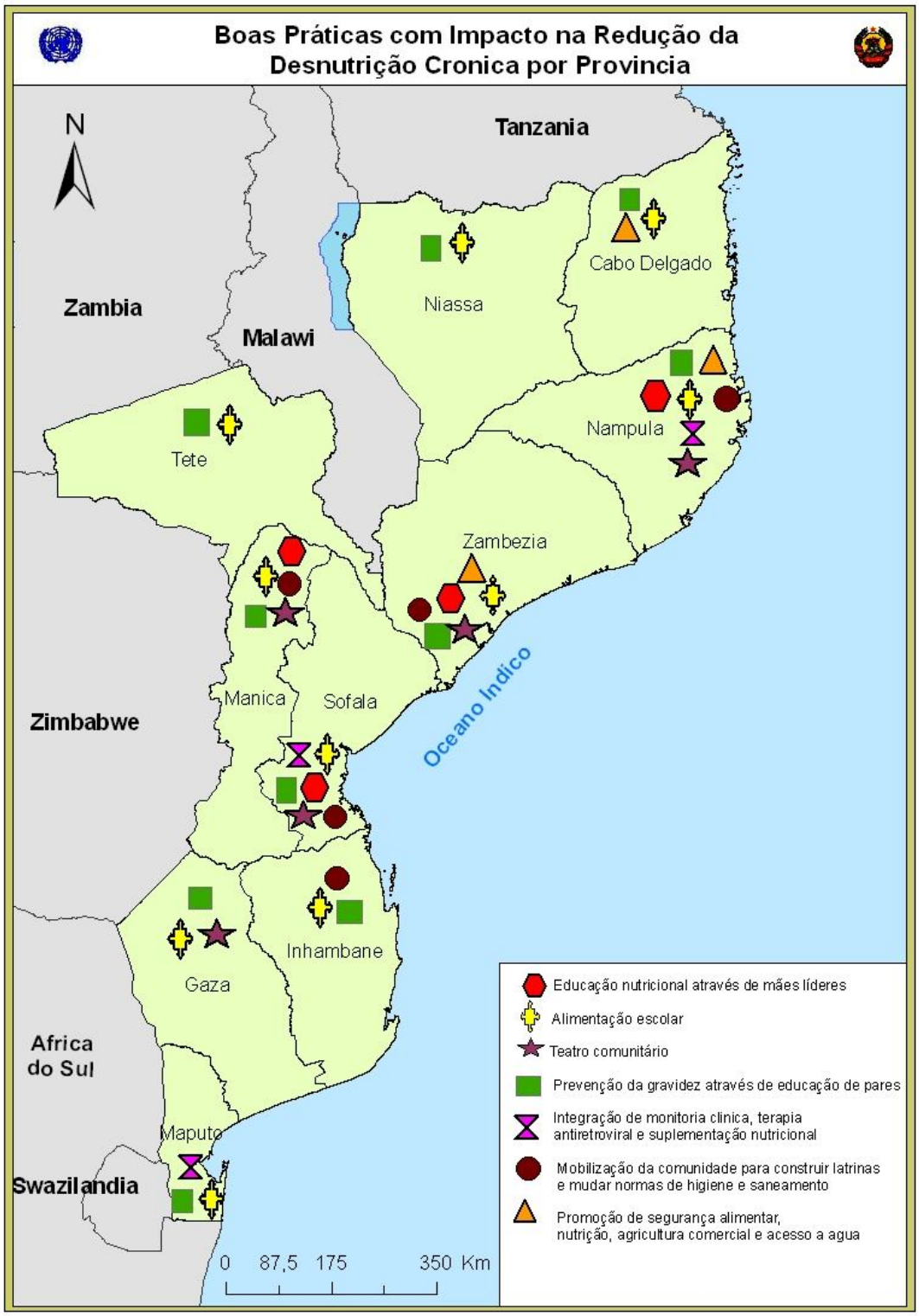
MAP 10


Percentagem de Crianças que Recebem Aleitamento Materno Exclusivo até os 5 meses (MICS 2008)
N
Tanzania
Cabo Delgado
Niassa
Zambia
Malawi
Nampula
Tete
Zambezia
Manica
Sofala
Zimbabwe
Oceano Indico
Inhambane
Gaza
Africa do Sul
Maputo
Swazilandia
0 85 170 340 Km
Legenda
< 20%
21 - 40%
41 - 45%
46 - 50%
> 50%

MAP 11


Percentagem de Mulheres Grávidas Suplementadas com Ferro e Ácido Fólico nas Consultas Pré-natais (MISAU 2009)
N
Tanzania
Cabo Delgado
Niassa
Zambia
Malawi
Nampula
Tete
Zambezia
Manica
Sofala
Zimbabwe
Oceano Indico
Inhambane
Gaza
Africa do Sul
Maputo
Swazilandia
0 85 170 340 Km
Legenda
0/ Sem informação
< 54 %
55 - 56 %
57 - 67 %
> 67 %

MAP 12


Boas Práticas com Impacto na Redução da Desnutrição Cronica por Provincia
N
Tanzania
Zambia
Malawi
Zimbabwe
Africa do Sul
Swazilandia
Niassa
Cabo Delgado
Nampula
Tete
Zambezia
Manica
Sofala
Inhambane
Gaza
Maputo
Oceano Indico
0 87,5 175 350 Km
Educação nutricional através de mães líderes
Alimentação escolar
Teatro comunitário
Prevenção da gravidez através de educação de pares
Integração de monitoria clinica, terapia antiretroviral e suplementação nutricional
Mobilização da comunidade para construir latrinas e mudar normas de higiene e saneamento
Promoção de segurança alimentar, nutrição, agricultura comercial e acesso a agua

TABLES

Table1. Consultation coverage

Indicator	2008	2009
Prenatal consultation	100%	99%
Postnatal consultation	68%	59%
Family planning	11%	10%

Source: PSE 2009, MISAU

Table 2: Evolution of National Coverage of Child Component (0-4 years old), 2008 and 2009

	2008			2009		
1st Consultations	Target group	1st Consultations Performed	Coverage	Target group	1st Consultations Performed	Coverage
0-11meses*	834.157	833.431	99,9%	867.783	920.842	100%
1-4 years old #	2.731.881	748.728	27,4%	2.842.003	633.252	22,3%

Source: Modulo Básico, MISAU.

Table 3. Number of lectures and food preparation demonstration sessions between 2007 and2009

Province	2007		2008		2009	
	Lectures undertaken	Nr of food preparation demonstrations	Lectures undertaken	Nr of food preparation demonstrations	Lectures undertaken	Nr of food preparation demonstrations
Maputo Cidade	-	-	-	-	515	212
Maputo Província	-	-	1643	381	1643	381
Gaza	453	-	564	46	2082	4681
Sofala	3473	482	7125	2315	12863	15233
Tete	15	5	12	3	274	62
Manica	-	-	72	72	723	15293
Cabo Delgado			26	13	39	96
Nampula	23	96	50	124	23	96
Zambézia			-	-	14027	2142
Total	3964	583	7849	2573	32189	38193

Source: Relatórios Anuais 2007, 2008, 2009, MISAU

Table 4. Routine food supplement in children <5 years with acute moderate malnutrition, 2008 and 2009.

Province	2008			2009		
	Screened children	Cases of moderate malnutrition	Children supplemented, with/ CSB	Screened children	Cases of moderate malnutrition	Children supplemented, with/ CSB
Tete	1.987	558	558	155.968	7.280	7.280
Manica	22.897	1.596	1596	2.066	1.538	1.538
Sofala	197.103	4.115	4115	7.907	1.432	1.432
Gaza	2.473	1.601	1601	3.128	880	880
Maputo Província	9.969	242	242	14.337	390	504
Total	18,118	2,568	2,554	183,406	11,520	11,520

Source: Relatórios anuais 2008, 2009, MISAU

Table 5. Vitamin A supplement coverage for children between 6 to 59 months old in the second phase of National Child Health Week (Semana Nacional de Saúde da Criança-SNSC), 2008 and 2009

Province	2008	2009
Niassa	100%	94,7%
Cabo Delgado	97,8%	100%
Nampula	100%	97,2%
Zambézia	100%	100%
Tete	100%	100%
Gaza	79,5%	100%
Sofala	98,7%	98,4%
Manica	100%	100%
Inhambane	86,8%	100%
Maputo Província	100%	100%
Maputo Cidade	84,8%	96,8%

Source: Relatório da SNSC, 2ª Fase 2008 e 2009, MISAU.

Table 6. Deworming coverage in children from 12 to 59 months old in the 2nd phase of the National Child Health Week (Semana Nacional de Saúde da Criança SNSC), 2008 and 2009

Province	2008	2009
Niassa	100%	86,9%
Cabo Delgado	98%	94,9%
Nampula	100%	75,2%
Zambézia	97%	100%
Tete	100%	88,3%
Gaza	82%	98%
Sofala	96%	91,7%
Manica	100%	100%
Inhambane	86%	100%
Maputo Província	100%	98,2%
Maputo Cidade	90%	94,7%

Source: Relatório da SNSC, 2ª Fase 2008 e 2009, MISAU.

Table 7. Routine Deworming Coverage in pregnant women, 2009

Province	2009
Niassa	26%
Cabo Delgado	29%
Nampula	ND
Zambézia	48%
Tete	ND
Gaza	ND
Sofala	ND
Manica	41%
Inhambane	28%
Maputo Província	30%
Maputo Cidade	ND

Source: Relatórios provinciais 2009, MISAU.

Table 8. Food distribution coverage by Food Subsidy Program in total population

Province	2009
Niassa	1%
Cabo Delgado	0,8%
Nampula	0,8%
Zambézia	0,3%
Tete	0,8%
Gaza	1,2%
Sofala	0,8%
Manica	1,2%
Inhambane	1,7%
Maputo Província	0,6%
Maputo Cidade	0,5%

Source: Relatório Anual, 2009, INAS.

Table 9. Assisted population coverage through Rural Extension Program

Province	2009
Niassa	4,4%
Cabo Delgado	1,4%
Nampula	1,4%
Zambézia	1,6%
Tete	2,2%
Gaza	1,4%
Sofala	3,2%
Manica	2,2%
Inhambane	1,4%
Maputo Província	2%
Maputo Cidade	1,3%

Source: Actividades da Extenção Agraria, DNEA, 2009, MINAG.

Table 10. Access Coverage to Water and Sanitation in 2009

Province	Access and supply of clean water	Access to latrines and sanitation
Niassa	90%	38%
Cabo Delgado	59%	54%
Nampula	40%	30%
Zambézia	39%	25%
Tete	52%	43%
Gaza	67%	40%
Sofala	60%	35%
Manica	66%	56%
Inhambane	64%	92%
Maputo Província	80%	47%
Maputo Cidade	89%	79%

Source: Relatório Anual, Direcção Nacional de Águas, 2009, MOPH.

Good Practices

Good practice 1: Nutrition education through care groups and lead mothers in the communities

Target group	Objective	Method and logic	Impact
Pregnant and lactating women	Training care groups to change practices of many mothers in respect to exclusive breastfeeding, hygiene practice and adequate feeding, identify and refer to Health Units when a child is sick	All mothers select lead mothers who will train community mothers through food preparation demonstration, lectures, home visits. One lead mothers makes 22 hours/moth and reaches 12 mothers and visits them biweekly. Existence of 10 health promoters in every district and each will be responsible for training 80 to 100 volunteers. They are currently 3200 lead mothers who regularly visits 28.100 households with children below 5 years old in Nhamatanda, Gorongosa, Marromeu and Caia	In Nhamatanda, Gorongosa, Marromeu and Caia, moderate malnutrition has reduced to 25% and exclusive breastfeeding during the first 4 months has increased from 40% to 80% and from 1997 to 2001. (World Relief: 2004) In Chókwe child mortality (children below 5 years old) has reduced child mortality to 6.2% from 2001 to 2004 through this activity (Edward et. Al. 2007, Trans. Roy Soc. Trop. Med. Hyg. (2007)
Contribution to the action plan: Strategic objective 2,3	Lesson learned: mother practices change through intensive contact between lead mothers and community mothers as trust is created between them. The reason for a leader mother to carry on with her activity is the respect she has in community and home. This model can also be used to educate communitis about the danger of aneamia and hos it relates to chornic malnutrition and maternal mortality		Programs and stakeholders: MYAP. FH, ADRA, WV, Save the Children/Africare Others similar: CUAMM, Cruz Vermelha

Good practice 2: Community theater to promote sanitation, hygiene and nutrition good practices and to prevent malaria and HIV

Target group	Objectivoe	Method and logic	Impact
Pregnant and lactating mothers, households	Mobilization to go to Health Units, behavior change to prevent malaria and HIV and to promote sanitation and hygiene good practices	Demonstration through theaters attracts more people than conventional lectures. Use of local language and reference to local cultural practices help mobilize, raise awareness and promote behavior change sustainability	2/3 out of 3900 informants say that their health units attendance, participation in hygiene related challenges resolution and HIV prevention has increased after attending a community theater. Survey was undertaken in 2008 and assessed activities in Nampula, Zambézia, Gaza, Manica and Sofala.
Contribution to action plan: Strategic objective 1, 2, 3 and 4	Lesson learned: cultural identification of people and visualization of challenge resolution promotes community particpation and illiterate people		Programs and source: Assessment of community theater activities (PTO/UNICEF 2009) CUAMM, FDC, Cruz Vermelho, Pathfinder

Good practice 3: Nutrition supplement, weight evaluation, reference to Health Units and treatment of acute and moderate malnutrition

Target	Objective	Method and logic	Impact
Preganant and lactating women and children up to 5 years old	Reduce acute malnutrition among children aged between 6-59 months to at least 10% and increase coverage of acute malnutrition treatment between 20% to 70%	Health services use ACS, APE and activists to assess acute malnutrition among children and pregnant and lactating mothers and refer those with 12.5 cm of PB to Health Units. These provide nutrition education and home visits and refer them to health units where children are treated with Plumpy nut.	The project is in Ribáuè, Memba and Erati in Nampula. Among women and children that were referred to and joined the program, in 2009, 75% were treated. During 2009, 300 ACS were trained, of these71 healath workers, 110 community leader, 99 traditional healers and 171 primary scholl teachers
	Contribution to action plan: Strategic objective 2,3	Lesson learned: community model for treatement of acute malnutrition can be used for preventive treatment of chronic malnutrition in communities	Program and source: FINAL PROJECT REPORT FOR PCA AGREEMENT 2009. MISAU/Save the Children.

Good Practice 4: School feeding to improve nutrition status and performance and retention of students in schools

Target group	Objective	Method and logic	Impact
Children and teenagers	Improve nutrition status and ensure that children learning and reduce drop outs	Meald distribution to students in schools. Supplement with 100g of CSB that provides 75% of the daily recommended food	Through questionnaire with 144 teachers in 89schools in Gaza, Sofala, Inhambane and Manica, 59% responding that meals improved and the many responded that meals ensure that sudents go to school. The activity has199.727 beneficiaries across all the country provinces
Contribution to the action plan: Strategic objective 1		Lessons learned: School feeding support improves performance and nutrition status and contributes for retention of srtudents in schools	Programs and sources: School feeding: PMA/MEC/JAM WFP:2009 A Report from the Office of Evaluation 2009: JAMs Longitudinal Studies

Good practice 5: prevention of teen pregnancy and HIV/AIDS (Generation Biz-PHB)

Target group	Objective	Method and logic	Impact
Teens	Delay sexual activity, promote the use of condoms and fidelity of partners, raising awareness about the rights of the girl	Allocation of condoms and counselling in schools through peer educators (activists) and SAAJ to raise the target group as an alternative to the advice given by teachers and in health facilities	Evidence from a survey shows that the use of peer education has an impact on youth behavior, condom use during the first sexual contact increased from 35% to 60% between 2002 and 2005 in secondary schools with PHB. 2 schools in Maputo, between 40 to 50% of students said they changed their sexual behavior using condoms consistently because of PHB. 4 million condoms and 300 thousand pamphlets were distributed in 2009
Contribution to the action plan: strategic objective 1	Lessons learned: the combination of peer education and condom distribution services in schools is effective because students identify with educators and access methods of prevention is facilitated. The same model can be used to inform about and controlling anaemia in schools		Programs and sources: PHB, Pathfinder, UNFPA WHO: From inception to large scale, 2009. C. Groes-Green, Sexual Health 2009

Good practice 6: Integration of market agriculture, nutrition and food security promotion and access to water and sanitation (SANA)

Target	Objective	Method and logic	Impact
Preganat and lactating women, children and households	Train animators who refer sick people to health units, train others in construction of improved latrines, boreholes, improve hygiene practices, promote nutrition health and support associations in high nutrition food production and their marketing	Integration of nutrition and agriculture education, support with storage technologies to geneate income and sustainability in high nutrition value food production that ensures diversified diet. `Animators` are trained to promote local based enriched porridges, hygiene good practices and exclusive breasfeeding	A preliminar assessment had demostrated that communities understand the linkage between nutrition, agriculture and sanitation. People undertstand that children nutrition status increases with bethher knowledge on food utilization, hygiene practices and diversified diet
Contribuition to action plan: Strageic objeactive 1,2,3,4	Lesson learned: Hygiene and nutrition education combined with cretaion of agriculture associations creates na understanding and capacity to produce and prepare diversified melas with high nutrition value. The effect is major when people see theis children improving		Programs and stakeholders: MYAP /2008-2011 Save the Children/ Africare; WV, ADRA and FH

Good practice 7: Community mobilization for construction of latrines and boreholes and to change hygiene and sanitation practices

Target group	Objectivoe	Method and logic	Impact
households	Estabelishment of good hygiene and sanitation practices and encourage communities to build and utilize latrines correctly	Demonstration of food contamination so that communities understand the consequences of poor hygiene and sanitation and act collectively. Include community leaders in community mobilization for construction of latrines and their demonstration . Communities granted an award when 100% of house have latrines	Demonstration showing the side effects of defecating out of latrines. Initiate in 173 communities from November to December. As a result more than 49.000 latrines were built with 250.000 beneficiaries. Award were granted to 34 communities for achieving a coverage of 100%
Contribution to action plan: Strategic objective 1,2,3,4		Lesson learned: combination of concrete risks demostrations, training of community leaders, awards for communities to build latrines prevents the practice of deffecating out of latrines and mobilizes all the community to find sustainable solution	Source: WSP: Evaluation of 'One Million Initiative' Programs and stakeholders: CLTS/ UNICEF Similar activity: ADRA/ Samaritans Purse SCIP: Pathfinder/ Care; SCIP : World Vision /IRD

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