Assessment of the Public Health Nutrition Capacity in Mozambique

Aileen Robertson, PhD
Metropolitan University College
Copenhagen
Denmark

This work was carried out under contract
With Royal Danish Embassy, Mozambique

Summary Report
November 2012
Author’s profile

Dr Aileen Robertson, PhD, is a Public Health Nutritionist at Metropolitan University College, Copenhagen, Denmark. Previously she worked as Regional Adviser for Food and Nutrition Security at the WHO European Regional Office Europe where she worked from 1992 until 2004 advising more than 50 Member States how to develop and implement their multi-sectoral food and nutrition policies and action plans. From 2005 she is one of the key individuals developing a new undergraduate Bachelor of Science Degree in Public Health Nutrition and Food Policy. The Department where she works is designated as a WHO Collaborating Centre for Nutrition. Dr Robertson is a partner in many of the European Union’s DG Research and DG SANCO projects in addition to carrying out a variety of consultancies related to public health and food and nutrition interventions.

Acknowledgements

I would like to thank all those who contributed to this Capacity Assessment Assignment including the production of this report where Isabel Perquito assisted with the nutrition situation analysis and photographs were provided by Federico Duarte, Technical Health Adviser in Tete funded by DANIDA. In particular I wish to thank Ellen Warming for her logistical and technical support and guidance during the assessment country mission (Monday 28 May – Sunday 10 June 2012) in Mozambique. Similarly, sincere appreciation and gratitude is extended to all the individuals we interviewed who were generous in giving their time and shared their knowledge and expertise in relation to nutritional health of the Mozambican population. This capacity assessment mission was commissioned by the Royal Danish Embassy in Maputo. I would like to sincerely thank Kirsten Havemann for her advice and support throughout the assignment and wish her courage during her continuing commitment to improve the nutritional health of the population of Mozambique.
# Table of Contents

1. **Introduction** .................................................................................................................................................................................. 4
   1.1 Background and Rationale for this Assessment ......................................................................................................................... 4
   1.2 Prevalence of malnutrition in Mozambique ............................................................................................................................... 4
   1.3 Organisation of this Summary Report ........................................................................................................................................... 5

2. **Methods** ...................................................................................................................................................................................... 5

3. **Workforce Planning and Leadership** .............................................................................................................................................. 6
   3.1 Academic and Education Sector ...................................................................................................................................................... 6
   3.2 National Health Sector ................................................................................................................................................................. 6
   3.3 Future Human Resource Management in Public Health Nutrition ................................................................................................. 6

4. **Draft Road-Map for Priority Actions** ............................................................................................................................................. 7
   4.1 Strengthen SETSAN’s Ability to Coordinate Multi-sector Collaboration ............................................................................................. 7
   4.2 Strengthen the Academic Sector’s Ability to Participate in Multi-sector Collaboration ............................................................... 7
   4.3 Strengthen the Education Sector’s Ability to Participate in Multi-sector Collaboration ............................................................... 7
   4.4 Strengthen the Health Sector’s Ability to Participate in Multi-sector Collaboration ................................................................. 8
   4.5 Strengthen Agriculture and Fisheries’ Ability to Participate in Multi-sector Collaboration .......................................................... 8
   4.6 Strengthen Ministry of Women and Social Action to Participate in Multi-sector Collaboration .................................................... 9
   4.7 Strengthen Ministry of Industry and Commerce to Participate in Multi-sector Collaboration ........................................................ 9
   4.8 Strengthen Ministry of Public Works to Participate in Multi-sector Collaboration ................................................................. 9
   4.9 Strengthen Civil Society’s Ability to Participate in Multi-sector Collaboration .................................................................................. 10
   4.10 Monitor Private Sector and Public Private Partnerships to Ensure Ethical Collaboration ........................................................ 10
   4.11 Coordinate International Donor Activities to Ensure Support for the Government’s Policy .......................................................... 10

5. **Conclusion** ..................................................................................................................................................................................... 10

1 Introduction

Chronic undernutrition (stunting or low height/age) is recognized as the main nutrition problem in Mozambique. Stunting impacts negatively on physical and mental growth and cognitive development and contributes to high child mortality and so hampers economic development in Mozambique. Around one half of children under 5 years are stunted and more than one quarter (27%) are stunted by 6 months of age. This very early infant stunting rate indicates that feeding practices between birth and 6 months needs urgent action by the Ministry of Health.

1.1 Background and rational for this assessment

To respond to the high number of children with stunted growth the Government of Mozambique developed a Multisectoral Action Plan for Reduction in Chronic Malnutrition (MAPRCM). This plan has 7 strategic objectives (Annex. 1) and was signed by the Council of Ministers, development partners and UN organizations in September 2010. Following a request from the Government to build Mozambique’s capacity to improve the population’s nutritional health, DANIDA plans to link its programme support to the implementation of the MAPRCM. This summary report describes the assessment that was carried out in June 2012 in accordance with strategic objective 5 in MAPRCM:

- **5. To strengthen the human resource capacity in nutrition**
- **5.1 Human resources responsible for nutrition at national, provincial and district level are trained**
- **5.2 Professionals of the health, food security and education sectors are adequately trained in nutrition**

1.2 Prevalence of malnutrition in Mozambique

Improved nutritional health holds the key to reducing poverty and this demands a coordinated multi-sectoral response. Although poverty levels have diminished, the inequality index (Gini coefficient) from 1996-7 to 2008-9 remained relatively unchanged (0.40 and 0.41). Life expectancy at birth was around 42 years (2005)\(^1\) and Mozambique is well below the African average for life expectancy. Between 1990 and 2009 the under-five child mortality rate decreased from 232 to 142 deaths per1000 births and infant mortality decreased from 155 to 95 deaths per1000 live births. However mortality rates are still unacceptably high. Around 75% of the population live in rural areas and the income of about 80% of them is earned via agriculture and fisheries.

**Stunting levels in children under 5 years of age**

In Mozambique around half (46.4%) of children under 5 years are stunted and these very high levels have not decreased over recent years. High prevalence of stunting is linked to unsafe water and food and poor sanitation resulting in diarrhoea. Moreover measurements of body length indicate that infants already suffer from alarmingly high rates (27%) of stunting by the age of 6 months most likely due to inappropriate feeding practices during their first 6 months.

**Iodine Deficiency Disorders**

Iodine deficiency disorders are documented as a serious public health problem in Mozambique, with a goiter prevalence of 15% among primary school children in 2004. Provincial variations exist, with data from Niassa showing the highest rates (36%), followed by Zambézia and Nampula (both 24%) and Tete (11%).

**Vitamin A Deficiency**

Vitamin A deficiency affects over two thirds (69%) of children under 5 years.\(^2\) This is well above WHO cut-off (20%) that defines a severe public health problem and children living in rural areas of Mozambique are most affected.

**Iron Deficiency Anaemia**

Iron deficiency anaemia is also a severe public health problem in Mozambique. In 2002 three-quarters (75%) of children under 5 years were suffering from anaemia (Hb<11.0 g/dL).\(^3\) Rural areas were most affected and the prevalence was

---

\(^1\)Population Division, Department of Economic and Social Affairs (DESA), United Nations, World Population Ageing 1950-2050, Country Profiles

\(^2\)DHS 2003: Serum retinol measured in all provinces of the country except Nampula.
highest (89%) among children between 6-11 months and around half of young women suffered from anaemia. Anaemia levels tended to increase in women with an increasing number of children and decreased in women with increased level of education. Forty-four percent of lactating women suffered from anaemia compared with 52% non-lactating women confirming that lactation may be protective against anaemia.

**Infant and young child feeding practices**

Nearly all infants (98%) in Mozambique are breastfed. However only two thirds (63.2%) began breastfeeding within one hour of birth and nearly one fifth (15.8%) of these received a pre-lacteal feed. Alarmingly half of the infants under two months of age are not exclusively breastfed which drops off at around 2-3 months so that only few mothers (13.7%) continue to breastfeed exclusively until their infants reach 4-5 months of age.

According to a pilot study carried out in Zambézia Province in 2005 the reasons cited for inappropriate feeding practices included a range of beliefs and taboos: 60% of mothers thought colostrum should be discarded and not given to their infants; 68% thought mothers should stop breastfeeding when ill; 85% thought it was good to give additional liquids such as water, which may not be boiled, to infants under 4 months; and 97% thought a mother should stop breastfeeding if pregnant. In addition other family members (mothers-in-law and fathers) over-rule young mothers by insisting that infants should receive water (including unboiled), semi-solids or traditional medicines before the age of 6 months.

**Double burden of malnutrition**

It appears that the double burden of malnutrition exists in Mozambique. This is indicated by the co-existence of both stunting (43.7%) and overweight (13%) in young women. Similarly some Mozambican urban children under 5 years of age are overweight. Overweight prevalence is greatest in Maputo Province (9.2%) followed by Niassa Province (7.3%). Over-emphasis on processed complementary foods for young children could worsen the Mozambican double burden of malnutrition and widespread distribution of processed complementary foods can exacerbate the already low rates of breastfeeding.

1.3 Organisation of this summary report

This summary report gives a brief outline of the methodology used during the assessment mission and presents the main findings. An overview of the recommendations is included in the “Road Map” which is suggested as a way forward in section four below. For those wishing to read a more in-depth description of the methodology and detailed findings they are referred to the full report of June 2012 available from DANIDA.

2 Methods

This assessment was qualitative in nature and conducted from Monday 28 May until Sunday 10 June 2012. The mission was designed to assess the current workforce, their training and their capacity with regard to improving Mozambican nutritional health. This included professionals working in sectors such as agriculture, education and health. The methods used consisted primarily of interviewing key informants plus a literature review. The city of Maputo and two provinces, Nampula and Tete, were selected and around 50 key informants were interviewed. Eight days after the start of this mission the preliminary findings were presented in Maputo to the authorities including SETSAN, Ministry of Health, and Traditional Medicine Association, along with USAID, EU, WB, UNICEF, WFP, Ireland, Belgium & Flanders and Helen Keller International. The stakeholders’ feedback was collected and used to reshape the findings.

---

1 WHO’s threshold for a severe public health problem is anaemia levels above 40%.
2 Low J. Towards Sustainable Nutrition Improvement in Rural Mozambique: addressing macro- and micronutrient malnutrition through new cultivar and key behaviours: Key findings 2005
3 Pedro A., Arts M., Geelhoed D., Prosser W., De Schacht C., e Alons C. Barriers para o aleitamento exclusivo (rascunho)
4 WHO Global Database on Child growth and malnutrition
5 Until their school years or during adolescence.
3 Workforce Planning and Leadership

Of concern was the fact that the Government’s “Human Resources Development Plan” apparently did not include the need for more appropriately qualified nutrition professionals and it was unclear whether or not the Ministry of Health had included the need for more nutritionists within their “Accelerated Action Plan”.

3.1 Academic and Education Sector

The academic and education sectors offer one of the best opportunities for strengthening capacity and improving the nutritional health of the Mozambican population.

Academic Institutions

Only two academic institutions, ISCISA in Maputo and University of Lurio in Nampula, train nutritionists to bachelor degree level and no University in Mozambique offers a MSc in Public Health Nutrition.

Schools

The subject home economics does not exist within the school curricula in Mozambique. The Director of Education in Tete, a former biology teacher, reported the need for practical lessons on both food preparation and healthy eating to be incorporated into the school curriculum. The potential of the school curriculum was stressed and assistance to improve the nutrition training of school teachers was requested by many of the Mozambican professionals who were interviewed.

3.2 National Health Sector

Around one half of the Mozambican population is not covered by the National Health Services. As a result the Ministry of Health is working via traditional healers (one per 200 capita) to reach the other half of the population. It is not clear if traditional healers and birth attendants promote local myths or food taboos and whether or not they are appropriately trained in the international nutrition recommendations.

3.3 Future Human Resource Management in Public Health Nutrition

The education sector is likely to be prioritized to receive most of the Government’s increased staffing allocation before the health sector. This means that Mozambique will be unlikely to, in the near future, achieve the recommended number of qualified Bachelor of Science (BSc) nutrition graduates (100-500); post-graduate Master of Science (MSc) nutritionists (10-50); and post-graduates with Philosophy of Science Degrees (PhDs) (5-25) in nutrition per 5 million population which, for Mozambique, translates into:

- BSc: 400 (short-term priority) – 2,000 (long-term priority);
- MSc: 40 – 200 (medium to long term priority);
- PhD: 20-100 (long term priority)

There is a need to investigate how these numbers of graduates and postgraduate nutritionists can best be achieved in Mozambique. Moreover in-service nutritional training for a wide range of professionals, including doctors and nurses, extension workers and school teachers, is urgently required. Participatory, problem-based learning approaches should be used and current initiatives at training institutions such as ISCISA, Maputo and UniLurio, Nampula should be built upon and lessons shared between other academic institutions in Mozambique.

---

4 Draft Road-Map for priority actions

There is a need to plan, organise, manage, monitor and invest in nutrition programmes and this calls for a coordinated multi-sector approach by the Government and its partners. The road-map outlined below provides a framework for actions by sector at national, provincial and community level over the next 5 to 10 years. Based on this road-map the Mozambican authorities can, through SETSAN and the multi-sectoral technical working groups, develop strategies, targets and timelines appropriate for Mozambique. The recognition of the link between mother, new born and infant, and the fact that more than one quarter of infants are already stunted by 6 months of age, forms the theoretical basis for this road-map with its focus on the first 1000 days and protection of the human rights of women and children.

4.1 Strengthen SETSAN’s ability to coordinate multi-sector collaboration

Coordination of the different sectors is difficult without SETSAN having the necessary power and overall authority recognised by decision makers and political leaders. With this SETSAN would be equipped to successfully coordinate the agreed objectives and roll out ESANII and MAPRCM at decentralised levels. Continuing high levels of stunting will be a sign of failed development and violation of the human rights of children and women. DANIDA, other donors and UN agencies, including public-private partnerships, have a responsibility to strengthen SETSAN’s capacity related to improving sustainable food and nutrition security in Mozambique.

Potential actions for SETSAN:
- Train SETSAN staff in financial management and system building to improve SETSAN’s coordination role.
- Train SETSAN’s technical working group members to improve their multi-sectoral working techniques and knowledge related to healthy nutrition during first 1000 days.
- Insist, with help of the Government, that donors respect the “Common Nutrition Fund” instead of investing in individual sectors.
- Carry out advocacy workshops to facilitate coordination and develop a common “ESANII and MAPRCM” implementation strategy with targets and timelines at national and provincial level.

4.2 Strengthen the academic sector’s ability to participate in multi-sector collaboration

There exists a good potential to build Mozambican capacity in public health nutrition based on the experience at UniLurio in Nampula and ISCISA in Maputo.

Potential actions for academic sector:
- Establish, together with SETSAN, a “Provincial nutrition undergraduate internship programme” for nutrition students studying at UniLurio and ISCISA, to train them during supervised practical experience to become competent practitioners.
- Seek support from donors for technical facilities and equipment along with employing more qualified nutrition lecturers.
- Seek ways to strengthen the infra-structure for undergraduates and future public health nutritionists to create a “National Nutrition Network” for all degree students and graduates.
- Investigate nutrition scholarship opportunities for MSc’s and PhD’s outside Mozambique with a view to building academic capacity inside Mozambique (e.g. via Distance/E-learning).

4.3 Strengthen the education sector’s ability to participate in multi-sector collaboration

The education sector holds one of the keys to successfully reduce high levels of malnutrition in Mozambique. For implementation within the teacher training (2½-year education) in Mozambique, Helen Keller International (HKI) developed a training module on health/nutrition. This nutrition module could be implemented by Provincial Directors of Education who can decide up to 20% of the school curriculum at provincial level. Many schools have gardens and teach
horticulture and so food preservation, preparation and cooking could also be taught to help spread the healthy eating message to their local community.

Potential actions for education sector:
- Investigate how home economics (including: infant and young child feeding practices; food preservation, preparation and cooking; healthy eating and food safety) can be taught in primary and secondary schools.
- Encourage district schools to decide up to 20% of their curriculum and introduce growing and eating of locally produced foods such as orange-fleshed sweet potato, fish and offal.
- Develop “community centres” at district schools which can become a focal point for teaching healthy food and nutrition for the local community.
- Create a market for local growers via public procurement policies and by purchasing local produce for school meals e.g. WFPs P4P (Produced for Purchase) programme.

4.4 Strengthen the health sector’s ability to participate in multi-sector collaboration

Many nutrition training modules, certified by the Ministry of Health, exist and a comprehensive list would be useful. Also useful would be a review of the training curricula of doctors and nurses to find out if international nutrition recommendations and the national strategic objectives of the MAPRCM are included. The MOH’s Provincial Training Centres are in a position to facilitate pre- and in-service nutrition training if they are appropriately staffed.

Potential actions for the health sector:
- Develop food based dietary guidelines for first 1000 days: including fish, offal and orange-fleshed sweet potato for pregnant/lactating mothers and complementary feeding along with optimum breastfeeding practices.
- Strengthen nutrition capacity through existing initiatives:
  (i) Baby-Friendly Hospital Initiative (BFHI) and fast track the accreditation of at least one BFHI hospital in each Northern Province;
  (ii) Making Pregnancy Safer;
  (iii) Baby-Friendly Community Initiative (BFCI);
  (iv) Community-IMCI;
  (v) Code of Marketing of Breast Milk Substitutes;
- Strengthen the current role of the Provincial Ministry of Health Training Centres by employing qualified nutritionists to: teach; supervise nutrition internship programmes; provide training for professionals from education, agriculture in addition to doctor and nurse training (both pre- and in-service).
- Strengthen the role, via National Director of Traditional Medicine Institute and Ministry of Health, of traditional healers and birth attendants at district level through damage limitation and health promotion.
- Consider a wide range of communication channels to spread healthy eating messages during pregnancy and lactation and correct infant and young child feeding practices within each local community e.g. via District Regulos & local community networks and extension workers.
- Create a market for local food producers via public procurement policies and by purchasing their produce for hospital meals e.g. WFPs P4P (Produced for Purchase).

4.5 Strengthen agriculture and fisheries’ ability to participate in multi-sector collaboration

Both the agriculture and fishery sectors in Mozambique demonstrate potential for improving sustainable food and nutrition security via local production; for example by producing dried fish (e.g. from small whole fish), offal products (liver & kidney) and orange-fleshed sweet potato (OFSP). If the Mozambican food-based dietary guidelines from MoH included these locally produced foods, a “win-win” situation can be created for the local economy (income of 80% of population is earned via agriculture and fisheries) while simultaneously improving nutritional health resulting in a dramatic reduction of stunting levels.
Provincial schools (similar to secondary schools) for training agriculture workers present an opportunity for: teaching food preservation and preparation skills; and dispelling taboos against healthy food such as fish, offal and OFSP. Consumption of fish, especially oily fish because they are a rich source of protein and long-chain polyunsaturated fatty acids (LCPUFAs), should be promoted for pregnant and lactating women and for feeding young children older than 6 months of age. LCPUFAs are necessary for growth and cognitive development and are transferred via breast milk (e.g. colostrum) from the lactating mother to her infant.

If small fish are eaten whole they also provide vitamin A, iron, and iodine (naturally or using iodised salt during drying). In addition animal fodder, such as “salt lick” containing iodised salt, should be fed to all chicken and domestic animals. Young children should not consume more than 2-3 grams salt and women should eat less than 5-6 grams per day and so iodine requirements during the first 1000 days is best obtained from food rather than from discretionary salt.

Potential actions for the agriculture and fishery sectors:
- Develop of a healthy food basket that meets nutritional requirements for different age groups using locally produced foods (fish, offal and OFSP) and calculate its cost.  
- Establish how The Mozambican National Food Composition Tables can be updated to represent all foods found in Mozambique and create electronic software.
- Train, using participatory community development approaches (with support of modules from FAO used in Brazil), agriculture extension workers how to best utilize local produce and dispel “taboos” related to eating healthy food (such as offal and fish) during the first 1000 days.
- Train fishery extension workers how to dry fish (using iodised salt) and demonstrate how eating fish during first 1000 days can meet most micronutrient requirements.

4.6 Strengthen Ministry of Women and Social Action to participate in multi-sector collaboration

Government social workers assess vulnerable households and decide who qualifies for State help. Welfare food programmes are provided to support orphans and the extremely poor.

Potential actions for the Ministry of Women and Social Action:
- Include locally produced dried vegetables/fruits, nuts and dried fish for free food distribution and ensure social workers can advise low income groups which, least expensive, foods contain the best nutritional value.

4.7 Strengthen Ministry of Industry and Commerce to participate in multi-sector collaboration

The Ministry of Industry and Commerce has responsibility for enforcement of the Mozambican law governing the marketing of breast milk substitutes including commercially produced infant formula. In addition they are responsible for implementing regulations concerning universal salt iodisation and ensuring salt contains the correct concentration of iodine. Moreover this sector is supporting the use of new processing machinery so that surplus foods can be processed and stored for times of shortage.

Potential actions for the Ministry of Industry and Commerce:
- Train sector workers how best to enforce the Mozambican law related to Code of Marketing of Breast-Milk Substitutes.
- Train sector workers to avoid promoting a high salt intake during first 1000 days of life (not more than 2-3 grams salt per day for young children; and less than 6 grams salt per day for mothers).

4.8 Strengthen Ministry of Public Works to participate in multi-sector collaboration

Safe water supplies and hygienic sanitation are vital to prevent undernutrition in young children and so this sector plays a key role in reducing the high stunting levels in Mozambique.

---

3rd National Poverty Assessment, Sept 2010, Ministry of Planning and Development
Lourdes Fidalgo, ANSA, is qualified to carry out this training
4.9 Strengthen civil society’s ability to participate in multi-sector collaboration
Civil society organisations can promote correct feeding and eating practices during the first 1000 days. The International Baby Feeding Action Network (IBFAN) in Mozambique should be strengthened to protect the human rights of children and women.

4.10 Monitor private sector and public private partnerships to ensure ethical collaboration
Inappropriate marketing of foods high in sugar, fat and salt undermine general knowledge and confuse the public. Unfortunately when seeking new market opportunities multi-national food corporations, for example through public-private partnerships and in their drive to carry out their respective interests and mandates, may create more nutritional harm than good.

4.11 Coordinate international donor activities to ensure support for the Government’s policy
Donor support may go directly to individual sectors. However this may create barriers and potentially undermine SETSAN’s capacity to carry out its coordination function. Instead the creation a “Common Nutrition Fund” strengthens SETSAN’s coordinating role and its capacity to expose conflicts of interest.

5 Conclusion
All the above sectors have a role to play in reducing the high stunting levels in Mozambique. Priority should be focused during the first 1000 days of life via “fast-tracking” healthy eating during pregnancy and implementation of optimum young child feeding practices through existing initiatives: such as BHFI; Community-IMCI; and adaption of the IMCI Food Box which should be based on locally available foods such as fish, offal and orange-fleshed sweet potato.

The road-map described here consists of evidence-based interventions that are cost-effective and feasible in a resource poor setting such as Mozambique. The suggested road-map can enable joint planning and cost sharing between sectors along with concerted action for rapid scaling up. It is the responsibility of the authorities, through SETSAN and the technical working group members who represent the different sectors, to agree the strategies, targets and timelines most appropriate for Mozambique.
### Annex 1. Strategic objectives from MAPRCM 2011-2014

<table>
<thead>
<tr>
<th>Strategic Objective</th>
<th>Expected Results</th>
</tr>
</thead>
</table>
| **1. To strengthen activities with impact on the nutritional status of adolescents (10-19 years)** | 1.1 Adolescent anaemia is controlled, in and outside of school  
1.2 Premature pregnancy reduced among adolescents  
1.3 Nutrition education is strengthened at various levels of schooling as part of the school curriculum, including the literacy curricula |
| **2. To strengthen the interventions with impact on the health and nutrition of women of child-bearing age before and during pregnancy and breastfeeding** | 2.1 Reduction of micronutrient deficiencies and anaemia before and during pregnancy and breastfeeding  
2.2 Infections before and during pregnancy and breastfeeding are controlled  
2.3 More weight gain during pregnancy |
| **3. To strengthen the nutrition activities aimed at children under two years of age** | 3.1 All mothers practice exclusive breastfeeding for the first six months of life of their children  
3.2 All children between 6 and 24 months receive adequate supplementary feeding  
3.3 Reduction of micronutrient deficiencies and anaemia in all children between 6 and 24 months of age |
| **4. To strengthen the activities aimed at households for the improvement of access to and use of highly nutritious food** | 4.1 Highly nutritious food is produced locally and used by the households vulnerable to food insecurity  
4.2 Strengthening of the capacity of the households vulnerable to food insecurity for the adequate processing, storage and use of food  
4.3 Provide households vulnerable to food insecurity with access to social welfare and protection services to ensure sufficient and diversified feeding of pregnant and breastfeeding women, adolescent and children 6-24 months of age  
4.4 Increase the supply and consumption of fortified foods in the communities, particularly iodized salt  
4.5 Existence of basic sanitation in the homes of households vulnerable to food insecurity with adolescent girls, pregnant and breastfeeding women and children under two years |
| **5. To strengthen the human resource capacity in the area of nutrition** | 5.1 Human resources responsible for nutrition at national, provincial and district level are trained  
5.2 Professionals of the health, food security and education sectors are adequately trained in nutrition |
| **6. To strengthen national capacity to advocate, coordinate and manage the progressive implementation of the MAPRCM** | 6.1 A multisector coordination group is created at the national level  
6.2 A multisector executive group is created for the management of the implementation of the plan at the national level  
6.3 A multisector executive group is created to manage the plan’s monitoring and assessment activities at the national level  
6.4 A multisector executive group is created to manage the advocacy and social mobilization activities for the reduction of chronic undernutrition at the national level  
6.5 A consultative multisector coordination group is created at the provincial and district level, which is capable of coordinating the implementation of the plan, carrying out advocacy and social mobilization for the reduction of chronic undernutrition |
| **7. To strengthen the food and nutrition surveillance system** | 7.1 Adequate management of the Food Security and Nutrition activities at the various (national, provincial, and district) levels  
7.2 Improvement of the availability of timely and location-specific information about food security in the country |