

## **Anne-Kathe Reme**

# **Nutrition Policy in Developing Countries**

Large-Scale Implementation Constraints and the Case of Mozambique.

Oslo and Akershus University College of Applied Sciences, Faculty of Social Sciences **Abstract** 

Increased knowledge of causes and consequences of malnutrition, and of the inherent

potential of investing in improved nutrition, has contributed to renewed attention to nutrition

in policy and on the development agenda. Nevertheless, malnutrition remains a significant

development challenge in many developing countries, and countries in Sub-Saharan Africa in

particular appear to be lagging behind.

This study seeks to gain insights into issues that pose as constraints for progress towards

improved nutritional conditions and hamper desirable progress. The focus is thus on

implementation dynamics experienced in nutrition policy at country and population level, and

on developing countries with Mozambique as a case study. The question formulated to guide

the study asks: what are the key constraints to progress of large-scale policy efforts towards

reducing malnutrition in developing countries, and of what relevance are these in the case of

Mozambique? To answer the question the study employs a review-based method, and

explores relevant existing literature in order to map out what actors and researchers have so

far identified as the key challenges for large-scale policy efforts.

The main findings of the review center on challenges of cross-sectoral coordination, nutrition

awareness in policy and continued political support, capacity-relates issues, lack of

institutional home for nutrition, and problematic aspects related to funding. Hence, these were

presented in thematic sections, and the relevance in the case of Mozambique was elaborated

upon. The study also found that the interrelatedness and close linkages between the various

implementation constraints made clear-cut distinctions and discussions complicated.

Suggestions about further research are also made.

Keywords: Nutrition Policy, Implementation, Developing Countries, Mozambique

Oslo and Akershus University College - Oslo 2012

i

#### Acknowledgements

Through previous work experiences in Brazil, Mozambique and South-Africa the phenomenon of malnutrition has made indelible impressions on my mind in various ways. I am now grateful for the opportunity that this master thesis has given me to broaden my understanding of malnutrition as a development and policy issue, and for presenting an environment conductive for doing this in a systematic manner. In the extension of this, my gratitude firstly goes to my supervisor Bennedichte R. Olsen for her comments, questions and critical eyes on my work. Your guidance and inputs have been significant. Thank you!

My gratitude also goes to the faithful clan in the reading- and computer- room at P35! Siv-Hege, Saskia, Ingunn and Ida, you have turned hopelessness into laughter, put frustrations into perspectives and turned grey into pink. I cannot even imagine how it would have been without you there. And to you, Gabriel, this list would not be complete without your name explicitly mentioned. Your honesty and kindness have no end. Thank you for sharing your gifts. Thank you's also go to the rest of the MIS-ters and MIS-ers in the MIS class of 2011. It has been a journey and I am truly thankful that I was invited to join!

Lastly, I would like to thank my friends and family who encourage me, and keep challenging me and believing in me. And to my mom (who has explicitly expressed her expectations about being mentioned here), thank you for your never ending concerns.

Anne-Kathe Reme

#### LIST OF ABBREVIATIONS

ADBG – African Development Bank Group

AU – African Union

FAO – Food and Agriculture Organization

FNSS – Food and Nutrition Security Strategy

DHS – Dempgraphic and Health Survey

DNEAP – Direcção Nacional de Estudos e Análise de Políticas

- National Directorate for Policy Research and Analysis

FRELIMO – Frente de Libertação de Moçambique

- The Liberation Front of Mozambique

GoM – Government of Mozambique

IESE – Instituto de Estudos Sociais e Económicos

- Institute for Social and Economic Studies

INE – Instituto Nacional de Estatísticas

- National Statistics Institute

IFPRI – International Food Policy Research Institute

NSG – Nutrition Study Group (of Poverty Reduction Strategy Impact Assessment)

PARPA II – Plano de Acção para Redução da Pobreza Absoluta 2006 -2009

- Poverty Reduction Strategy Poverty 2006 -2009

RENAMO – Resistência Nacional Moçambicana

- Mozambique National Resistance Movement

SETSAN – Secretariato Técnico de Segurança Alimentar e Nutricional

– the National Food and Nutrition Security Secretariat.

SCN - Standing Committee on Nutrition

SUN – Scaling Up Nutrition Movement

UNDP – United Nations Development Programme

UNICEF – United Nations Children's Fund

WFS – World Food Summit

WHO – World Health Organization

ZANU – Zimbabwean African National Unit

## TABLE OF CONTENTS

Chapter 1: INTRODUCTION	1
1.1 Background and Relevance	1
1.2 Aims and Objectives	2
1.3 Organization of the thesis	4
Chapter 2: METHOD	5
2.1 Literature Search and Data Sources	5
2.2 Study Limitations	6
Chapter 3: THE CASE OF MOZAMBIQUE – HISTORY AND CONTEXT	7
3.1 A Rising star and donor darling by the Indian Ocean	8
3.2 From colony to independence to civil war to multi-party elections	8
3.2 Development context	10
Chapter 4: MALNUTRITION AND NUTRITION POLICY	12
4.1 Malnutrition	12
4.2 Causes of Malnutrition	14
4.3 Nutrition Policy	16
4.4 Nutrition on the Agenda	19
Chapter 5: NUTRITION POLICY CONSTRAINTS	22
5.1 Coordination	23
5.2. Nutrition awareness in Policy and Political Commitment	26
5.3 Lack of Capacity and a need for definition	30
5.4 Lack of Institutional Foundation	34
5.5 Financial resources	36
Chapter 6: CONCLUDING REMARKS	39

## Bibliography

## **Appendix I: The UNICEF framework of Malnutrition**

### **Chapter 1: INTRODUCTION**

Malnutrition still remains a significant development challenge in many developing countries, and countries in Sub-Saharan Africa in particular appear to be lagging behind (Benson 2008; Stevens et al. 2012). This is despite economic growth and increased attention to malnutrition in a number of the countries in the region.

This study seeks to gain insight into factors impeding progress towards improved nutritional conditions. Through an examination of existing literature it seeks to discover key challenges for large-scale policy efforts as identified by actors and researchers in the nutrition policy field. The thesis is exclusively concerned with developing countries, with extra attention to the case of Mozambique.

#### 1.1 Background and Relevance

Over the last decade malnutrition has gained increasingly more attention on the development agenda. Factors contributing to bringing the issue to the fore involve evidence pointing to high development returns of certain nutrition interventions, documented irreversible effects of undernutrition, and summits and commitment opportunities initiated by key international development actors. Awareness and knowledge have gradually increased, both related to causes, range and consequences, and a great number of nations have now, for various reasons, committed to making issues of nutrition and food security a priority (Benson 2008, Ecker and Nene 2012, SUN 2012).

In spite of the foregoing, the number of undernourished in Sub-Saharan Africa has increased by close to 20 % since the start of the 1990s, and the problems of malnutrition are considered severe (Benson 2008, 1). Similar tendencies are presented by Stevens et al. (2012). A recognition of the magnitude of the burden of malnutrition in the respective countries, combined with the knowledge of both human costs in terms of shortened lives burdened by illness and reduced capabilities, and the economic losses of reduced productivity and household income, represent strong reasons for placing nutrition national policy agendas. In this regard, Benson argues that policies and actions from national governments are crucial for achieving improvements, but that this has been difficult in national contexts due to multiple challenges and constraints (Benson 2008).

One of the countries in Sub-Saharan Africa where nutrition appears to be advancing on the development agenda, through increased explicit focus on nutrition in key planning documents, is Mozambique. However, in spite of impressive consistent economic growth since the signing of their peace agreement 20 years ago, the country displays alarmingly low levels of human development (Azzarri et al. 2012, 2). In the last Human Development Index ranking the country was ranked number 184 out of 187 (UNDP 2011, 157). With a national stunting rate estimated to 42.6 % among children under the age of five by the national statistics institute (INE 2011<sup>1</sup>), the inherent losses are enormous. Simultaneously, this situation entails vast opportunities for remedial action. The potential gains from efforts to improve the conditions are readily available, and entail opportunities.

Absence of desirable progress towards reduced malnutrition has resulted in a relatively new but growing body of literature seeking to identify and understand the factors at play in the policy process in the field of nutrition (Benson 2008; Mwadime 2012; Pelletier et al. 2011b; Ecker and Nene 2012). Knowledge about the challenges that the process encounters, and the availability of potential wins, may result in a better working process (See Nabarro et al. 2012). Such knowledge can also decrease the gap between the expressed goals and what is experienced in practice. For desired results in large-scale nutrition policy to materialize, successful implementation of sufficiently funded policies in a variety of interconnected sectors is required, but this has so far proven difficult (See Benson 2008, 22; Headey 2012, 1; Garrett and Natalicchio 2011). In Mozambique, a Multisectoral plan for reducing chronic malnutrition was approved in 2010 but the process has been, as this thesis will indicate, fraught with constraining factors from the outset. The extent to which the implementation of the plan will result in expected outcomes is yet to be seen. It is against this backdrop that this study was formulated and developed.

### 1.2 Aims and Objectives

To develop a greater understanding of nutrition as a policy issue in developing countries, and to gain insights into factors that constrain the efforts to successfully deal with malnutrition in Mozambique, this study reviews existing literature on nutrition policy and its related implementation dynamics. It does not have ambitions to give a complete picture of all the

-

<sup>&</sup>lt;sup>1</sup> Preliminary Report from the 2011 Demographics and Health Survey. The preliminary status of the report must be kept in mind. In the latest Poverty Reduction Strategy Paper (GoM 2011), the stated rate is somewhat higher – 46.4%. The important point is that the levels are alarmingly high.

constraints the process may encounter. Rather, it aims to discover what has so far been identified as key challenges by actors and researchers in the field.

According to Exworthy (2008, 318) a helpful way to approach the diluted meaning of policy is by relating it to notions of context, process, content, and power. These distinctions provide useful input for the focus of investigation for this thesis. The emphasis in this study is on the context and the process dimensions. The notion of context then, in accordance with Exworthy, refers to the wider environment for which the interventions are planned, while process draws attention to expectations of outcomes (or absence of it) tied to actions carried out over time, and chains of interrelated actions. The content of policies and issues of power will not be given explicit attention (Exworthy 2008).

The factors at play in the nutrition policy process, as indicated in chapter 3, vary greatly and relate to differing levels. What is treated in the existing literature thus varies accordingly. The emphasis in this study is on population-level issues related to policy implementation and implementation dynamics at play in the translation of policy into practice. Thus the study seeks to identify central constraining variables in the process rather than the process in full. The extent to which attention is given to, for instance, the individual level or household level is in this respect limited.

The following research question was formulated to guide the investigation:

- What are the key constraints to progress of large-scale policy efforts towards reducing malnutrition in developing countries, and of what relevance are these in the case of Mozambique?

The structure of the pursuit to give answers to the stated research question will follow the twofold dimension of the question. This will mainly be found in Chapter 5. For each of the topics about issues constraining the process in developing countries, a section investigating the relevance of the issue for Mozambique will follow. Taking into account the limitations of scientific literature about nutrition policy specifically in the case of Mozambique, this solution ensures a certain level of scientific quality in literature utilized, without necessarily reducing its relevance. Mozambique is clearly a developing country, and the extent to which the available information about Mozambican implementation experiences coincide with the more

scientifically recognized information about developing countries, the reliability of country-specific information can be strengthened.

The choice of Mozambique as a case of investigation in the study is partly due to continued personal interest from previous and hopefully also future work experience in the country. Additionally, and equally important, the country has had a rather short but interesting story of development since the end of the civil war in 1992. Moreover, impressive dimensions of the attainment of continuously high level of economic growth are somehow dampened among others by the high levels of poverty and of malnourished people among the populations, indicators of low socio-economic development (Lindstrand et al. 2010). The country is still one of the most aid-dependent in the world, and in terms of establishing well-functioning and trustworthy institutions challenges are yet to be overcome (Lindstrand et al. 2010, 41).

In the field of nutrition, expectations seem to be mixed – on the one hand, Mozambique's commitment to the new international initiative, Scaling Up Nutrition (SUN), has contributed to optimism in the field, through establishing a multi-stakeholder platform aiming to facilitate capacity in national leadership for nutrition, ensure ownership, and align financial and technical support behind the national plans (Nabarro et al. 2012). On the other hand, research indicates that the processes that successful implementation multisectoral approaches imply, add complexity and great challenges in translating the stated process into actual progress (Benson 2008; Mwadime 2012; Ecker and Nene 2012; Harris and Drimie 2012).

#### 1.3 Organization of the thesis

In the pursuit to answer the stated research question, this thesis is set out as follows: In Chapter 2 a description of the method used is presented, followed by a section indicating limitations of the study. The next chapter then provides a background picture for the case study of Mozambique. Significant elements related to the country's history, and to its development context are sketched out. The contents of Chapter 4 form a basis for understanding nutrition and its role in human development and in policy. It also demonstrates some of the inherent features of malnutrition, and indicates directions of policy approaches to improving the issues. Against the background formed by chapters 3 and 4, the fifth chapter sets out more specifically to indicate relevant and adequate answers to the research question. The organization of the chapter consists of thematic presentations around themes that the literature reviewed appears to centre around. These are cross-sectoral coordination, nutrition

awareness in policy, continued political commitment, issues of capacity, lack of institutional foundation and funding related constraints. For every topic treated, a section about Mozambique follows, and the relevance of the constraint in that specific context is elaborated upon. Finally, Chapter 6 sets out summative and suggestive concluding remarks.

## **Chapter 2: METHOD**

This study is a review-based study with an explorative approach to reviewing the literature. It is, however, not a systematic literature review in the strictest sense, as the systematic steps in searches and the inclusion and exclusion criteria that this would require were not as clearly defined and followed. A review-based dissertation is a systematic search and review of existing theoretical and empirical literature. It is a synthesis of existing literature relevant to the identified research focus, and requires critical evaluation as well as an analytical eye on the literature under review (Hart 2005, 153; Halvorsen 2008, 241). Hart (2005, 143-147) states that such forms of dissertations are excellent vehicles for expanding substantial theoretical and methodological aspects of social sciences. The intrinsic ability to bring understanding, awareness, and clarity to a problem through identification of causes and potential means of eradication is also highlighted. These are all qualities well suited to address the study's aims of developing a greater understanding of nutrition as a policy issue. Both primary sources and secondary sources have been utilized.

#### 2.1 Literature Search and Data Sources

From a starting point of curiosity about child malnutrition and its seeming lack of substantial reduction in Mozambique, the navigation in nutrition-related literature about Mozambique began. With increasingly greater knowledge about the topic and its context, adjustments to the research questions were made, as were the literature needs and related searches related to it.

In the collation of research literature for the study, EBSCO host, Science Direct and Google Scholar served as the main databases for searches. Systematic searches were done through use of the phrases "developing countries" OR "Mozambique" AND "nutrition policy". In addition, less systematic searches were concentrated around combinations of words such as nutrition, undernutrition, malnutrition, nutrition programming, food policy and low-income countries. Following from the searches in the various databases was a practical screen of titles and abstracts. Due to limited relevant findings in the initial database searches, bibliographies

and reference lists have been rather actively used, leading to additional literature of great relevance. The concept of developing countries served as a strict inclusion criterion<sup>2</sup>.

In addition to searches in academic databases, a variety of grey literature was reviewed. The potential biases in this literature should be acknowledged, and these have been taken into account in the analysis of the study. Included in these other sources are institutional documents from the Government of Mozambique (GoM), conference papers, policy briefs and notes, and textbooks, as well as publications from multilateral and international institutions and organisations (such as United Nations Children's Fund/UNICEF, World Health Organization/WHO, Food and Agriculture Organization/FAO and World Food Program/WFP). Contributions from the International Food Policy Research Institute (IFPRI) were also found highly informative. Researchers central in the field are among others Todd Benson, Per Pinstrup-Andersen, and David L. Pelletier and colleagues. E-mail correspondence with David L. Pelletier and with Kristine Dandanell Garn, Nutrition Officer at UNICEF Mozambique, has also proved useful in terms of pointing to relevant information and literature.

In addition, to obtain data related to Mozambican context, publications available from webpages of the National Directorate for Policy Research and Analysis (DNEAP - Direcção Nacional de Estudos e Análise de Políticas) and the Institute for Social and Economic Studies (IESE – Instituto de Estudos Sociais e Económicos) were used. Portuguese literature was included, as my language level was sufficient enough to understand key messages and concepts. However much of the literature found here is available both in English and in Portuguese.

#### 2.2 Study Limitations

limited, to some extent. However, since the aim of the thesis was to identify a trend in topics appearing in the literature, and not an in-depth investigation of these, the limitation is not considered a threat to the study validity. The study furthermore explores a policy topic that is in its infancy, which on one the one hand adds to relevance, while on the other hand may entail limitations in the literature. As a result, a broad take on the question was employed, and

Due to space limitations, the topics and issues under scrutiny in this study is inescapably

\_

<sup>&</sup>lt;sup>2</sup> Allowing for low- and middle income countries according to the newer distinction as presented by for instance Lindstrand et al.(2010). Hence, high-income countries are excluded.

the scientific quality of parts of the literature included does call for awareness regarding biases. Examples are reports and documents produced by or based on funding from international non-governmental organizations or from governments. Also, government and policy documents may represent the plan rather than the reality. In this regard, and in part due to the infancy of the policy field investigated, employing other methods than solely a desk-top analysis could definitively have added valuable insights. However, the available time and limited length of the study prevented the exploration of alternative and complementary methods.

Additionally, the study does not set out with any one theoretical perspective or framework. However, as the study process moved forward, the available literature revealed this feature to be a rather common one in the field. It has and has also been explicitly stated as a tendency and challenge in the advancement in health policy research in low and middle income country settings (see e.g. Gilson and Raphaely 2008; Pelletier et al. Forthcoming<sup>3</sup>).

Another aspect that should be highlighted here is the strategy of using the findings from developing countries in general, to consider nutrition policy constraints in Mozambique in particular. This approach eliminates opportunities to reveal or explore challenges that are distinctive for Mozambique. Additional systematic database searches on each of the different constraint that emerged could arguably have been added to the method. However, time limitations did not allow for this.

## **Chapter 3: THE CASE OF MOZAMBIQUE – HISTORY AND CONTEXT**

This chapter presents historical and contextual information about Mozambique. This information provides a background for understanding developments and nutritional shortcomings, as well as for the nutrition policy challenges that will be addressed in Chapter 5. The necessity of giving attention to the circumstances in which policies are implemented is highlighted by Benson, who asserts that "understanding policy processes requires understanding of the local situation. Policies are embedded within particular political, institutional, historical, economic and agroecological" (Benson 2008, 6).

-

<sup>&</sup>lt;sup>3</sup> Provided over e-mail by David L. Pelletier.

#### 3.1 A Rising star and donor darling by the Indian Ocean

Situated on the southeastern coast of Africa, facing the Indian Ocean, lies Mozambique, a country often referred to as a development success by development agencies and organization, and a rising star of Africa by investors and by the tourism sector (Fox 2008, 3; Fitzpatrick 2010; ADBG 2012). In recent decades, the country has experienced not only impressive economic growth and political stability, but improved welfare and poverty reduction have also been seen as a key among other achievements. However, behind these desired developments are situations of complex processes. Echoes of a turbulent nation-story are still present and aftermaths of a colonial legacy, socialism and idealism, a war fuelled by racism, economic collapse and subsequent structural adjustment and liberalism have influenced the country in endurable ways (Tarp et al. 2002, 1).

#### 3.2 From colony to independence to civil war to multi-party elections

After almost five centuries as a Portuguese colony, Mozambique gained independence in 1975. The country's first government was ruled by FRELIMO – the Liberation Front of Mozambique, with President Samora Machel in the lead, and the first years following independence were characterized by leftward leanings and moves in the direction of socialist central planning. A prolonged and violent civil war initiated by the Rhodesian and South Africa-backed RENAMO - Mozambique National Resistance Movement emerged during the second half of the 1970s. Central reasons for this were related to various supports and sponsorships between political movements in Mozambique, Zimbabwe (then Rhodesia) and South-Africa, as well as RENAMO's discontent with the socialist policies of FRELIMO; FRELIMO supported ZANU (Zimbabwean African National Union) fighting for majority rule in Rhodesia which provoked the Rhodesian government to support RENAMO in carrying out sabotage and terror in Mozambique. When Zimbabwe became independent the South African apartheid government took up sponsorship of RENAMO, angered by the backing that FRELIMO gave to the African National Congress (Arndt, Jones and Tarp 2006, 10; Handa, Simler and Harrower 2004, 3).

The war, which targeted governmental health and education services and infrastructure, among others resulted in hundreds of the already limited amount of health posts being destroyed, and many health workers were injured, terrorized or killed. These issues obviously worsened living conditions for Mozambicans even further and millions, especially in the

northern and central regions of the country, were forced to leave their land for neighboring countries such as South-Africa, Zimbabwe and Malawi. At one point it was estimated that about 7 million Mozambicans were facing starvation due to insufficient agricultural production and in RENAMO-controlled areas, constituting about 50% of rural areas. In some of the provinces, people were devoid of any health services for years (Pfeiffer 2003, 728; Handa, Simler and Harrower 2004,3; Arndt, Jones and Tarp 2006;). According to Massingarela and Virgulino (2006), more than one million people died due to the war or its related famine, 400 teachers were killed, and more than 1000 health units and 3000 schools were destroyed. In addition to the devastations of civil war, natural disasters of droughts and floods simultaneously affected the country in 1970, 1982 and 1983 during this period (see Massingarela and Virgulino 2006). Hence, a variety of factors related to causes of malnutrition were weakened, be they health personnel, health units, infrastructure, education prerequisites or important agricultural preconditions.

Towards the end of the 1980s, dynamics of the war changed. Apparent socialist mismanagement led towards abandonment of Marxism accompanied by loss of aid and assistance from socialist countries and the Soviets withdrawing their 800 advisors from Mozambique (Pfeiffer 2003; Arndt, Jones and Tarp 2006, 13). In this growing state of emergency in the late 1980s, a temporary ceasefire was announced by RENAMO, to facilitate relief efforts. As both sides of the war grew exhausted and economic conditions deteriorated, FRELIMOs self-critically recognized the lack of expertise in the central planning and the neglect of the private and the smallholder sector. This led to extensive economic reforms. A series of macroeconomic reforms with structural adjustment programs, promoted by the International Monetary Fund, were introduced to stabilize the economy. These moved the country in the direction of increasing market-orientation, price increases, currency devaluation and social services, and spending cut back (Pfeiffer 2003, 728; Arndt, Jones and Tarp 2006, 12). A final peace accord was signed in 1992 after a process of sporadic peace talks over a period of three years. A Mozambique without its own resources to handle the crisis, opened for extensive international involvement and support for humanitarian, reconstruction and peace-building causes. This involvement was established relatively rapidly, with the United Nations Operation in Mozambique holding broad mandates in the process (Arndt, Jones and Tarp 2006, 13).

Following from a new constitution introduced in 1990, which provided for multiparty elections, the first free elections were held in 1994. FRELIMO has come to dominate every presidential and parliamentary election since then, through a majority of votes. After a near defeat to RENAMO at the polls in the 1999 election, FRELIMOs position has strengthened steadily, with President Albert Emilio Guebuza as the current president (Arndt, Jones and Tarp 2006).

The turbulent years of war and severe deconstruction left Mozambique with a very weak base from which to begin recovery, with basic services and infrastructure badly affected. Since peace eventually emerged, the country has managed to sustain the degree of political stability needed to launch certain basic societal processes. From the initial focus on emergency assistance following the ceasefire in 1992, the country has forged ahead into a relatively long period of reconstruction, economic growth and poverty reduction. Great strides have been made (Fox 2008; ADBG 2011). Of significant improvement over the last decade are the increased investments and expansions in sectors of health and education, and increased access to public services (Fox 2008, 8). Massingarela and Virgulino (2006, 7) attribute the opportunities of increased investments in education, health, agriculture and social action to the fact that the end of the civil war allowed for a shift in finances that had formerly been allocated to military activities.

#### 3.2 Development context

Mozambique's population of about 24 million people is predominantly located in rural areas, where about 70 % resides, with subsistence farming as their main way of making a living (Dade and Matusse 2009). The poverty rates are still high, at 54.7% <sup>4</sup>. A significant reduction from 69.4% to 54.1% was seen in poverty rates in the period between 1997 and 2003, but remained nearly the same in the period up to 2009 (GoM 2010). The patterns of birth and death rates over the latest years have resulted in a young population with an average life expectancy of 52.1 years, about 44% of the population is under the age of 15 years old. The density of people is among the lowest in Africa, constituted by a multitude of ethnic groups, with the majority of Bantu origin. Although the official language is Portuguese, only 40% of

-

<sup>&</sup>lt;sup>4</sup> Official numbers from INE, the national statistics bureau, following from a Cost-of-basic-need approach and measured in "adjusted flexible bundles"/context-specific poverty lines. See Fox Appendix 2008 and GoM 2010. For discussion of implications of the use of "adjusted flexible bundles" as compared to "fixed price fixed bundle"/one single national poverty line and malnutrition, see e.g. Bart van den Boom 2011.

the inhabitants consider it their mother tongue (Dade and Matusse 2009; GoM 2010; ADBG 2011).

In terms of levels of development and poverty trajectories, unequal access characterizes the geographic distribution, and the people of the south benefit from better access to public services than those living in the north. The regional or provincial picture sketched out by key human development indicators such as child mortality, life expectancy and malnutrition display the same tendencies, and geographic discrepancies are apparent with indications of central and northern provinces lagging behind (UNICEF 2011).

With about 36 million hectares of land suitable for agriculture activities, of which only about 13% is being used for agriculture purposes, the potential for agriculture development to influence nutritional conditions in the country is significant. Obstacles posed by limitations in infrastructure, as well as conditions in the food market, are also among factors to consider. Such factors exemplify the importance of including other sectors in plans for large-scale nutrition interventions (ADBG 2011; Pinstrup-Andersen and Watson II, 2011). However, although the country holds agricultural potential, it is largely considered food insecure. The occurrence of cyclones, floods and droughts devastate crops, infrastructure and livelihoods and reinforce the vulnerability of the significant percentage of subsistence farmers in the country every few years (Benson 2008, 35). According to the African Development Bank Group (ADBG 2011, 12) the road infrastructure, which significantly influences access to services, is among the worst on the continent. Mozambique is endowed with a variety of natural resources such as gas, coal, forestry reserves and hydro-power potential. These are elements that have facilitated opportunities for economic growth and attracted foreign investments (ADBG 2011). In general, the functioning of institutions and government ministries are struggling to meet their potential, and corruption and governance have gained attention as challenges in urgent need of improvement (Fox 2008; Dade and Matusse 2009; ADBG 2012, 11, GoM 2011,13).

The core elements of the country's development policies are the Government Five-year Plan (see GoM 2010) and the National Poverty Reduction Strategy (see GoM 2011). The former states objectives for the five-year government term, while the latter is regularly updated as an element of involvement in World Bank relief initiatives (Benson 2007, 326; ADBG 2011,1). The Agenda 2025/Visão 2025 provides a more long-term frame of reference for formulation

of these other strategies. While the current five-year plan is to be renewed following the looming 2014 elections, the Action Plan for Poverty reduction (accompanying the strategy) with its main objective of reducing poverty from 54.7% (in 2009) to 42%, applies to the period 2011-2014 (GoM 2011).

### **Chapter 4: MALNUTRITION AND NUTRITION POLICY**

In this section some of the basic concepts will be introduced to provide a basis for understanding the remaining chapters. Following from an elaboration of the notion of malnutrition and related matters, a framework for understanding causes of malnutrition will be presented. In the same vein, nutrition policy will be framed, before the notions of nutrition-specific and nutrition-sensitive policies and interventions are introduced. These have received much attention in the most recent literature. The final section of the chapter outlines the rationale for making nutrition a policy priority.

#### 4.1 Malnutrition

*Malnutrition*, as this section demonstrates, results from complex multiple causes (Swart, Sanders and McLachlan 2008, 9). The word refers to deficiencies or excesses in a person's intake of nutrients needed to sustain the nutritional needs of one's body. It is not necessarily an issue of too little food, but also a matter of the quality and lack of intake of specific nutrients needed for desired development, such as iodine or vitamin A (Lindstrand et. al 2010, 177). From this, three types of undernutrition can be derived, namely overweight, underweight and micronutrient malnutrition, also referred to as 'hidden hunger'.

With the escalating occurrence of obesity also affecting people in developing countries the notion of a *double burden of disease* has become rather recognized. This implies new challenges in to dealing with both the overweight and underweight populations (Lindstrand et al. 2010, 177). Pinstrup-Andersen and Watson II (2011, 58) added to the malnutrition debate by arguing for *triple burden* of malnutrition, adding nutrient deficiency as a third element. This appears to be a relevant distinction.

#### **Measuring Malnutrition**

A common method for assessing nutritional status is through use of anthropometric indicators: – measuring the size of the body of a representative sample of a specific gender

and age group. Monitoring of nutritional status among populations has become almost a platitude, and now provides key information for planning of interventions and target setting in the field (Black et al. 2008; Gibson 1990 in Lindstrand et. al 2010, 116). Different anthropometric indicators exist, all calculated with the basic measurements of weight, height, age and sex. For adults the Body Mass Index (kg/height in m<sup>2</sup>) is often used. According to Black et al. (2008), the most useful indicators for assessing the nutritional status of children are through wasting and stunting. A child is considered to be wasted when having low body weight relative to its age. The condition is mainly linked to nutrition and indicates a recent significant loss of weight, fat stores and muscle mass, and may be caused by insufficient nutrient intake or conditions that result in depletion of minerals and weak absorption (Garcia 2012, 6; Lindstrand et. al 2012, 118). Stunting, as compared to wasting, is only partly linked to nutrition and is considered to be a good indicator for over all socioeconomic conditions. It is often referred to as chronic malnutrition and implies a condition of low growth performance and slow skeletal growth compared to a child's age. Since stunting is only partly linked to nutrition, it cannot be treated by a sufficiently nutritious diet alone, but requires adjustments and efforts from different sectors (Garcia 2012, 6; Lindstrand et. al 2012, 116-119).

#### Scale and scope of malnutrition

In spite of increased recognition of overnutrition as an emerging health problem also for developing countries, when the burden of malnutrition is brought to the fore, the focus mainly seems to fall on undernutrition or micronutrient deficiency (see e.g. Benson 2008; Black et al. 2008, Bhutta et al. 2008, Ecker and Nene, 2012; Pelletier et al. 2011b). This is due to the fact that malnutrition is not regarded as disease per se, but rather a cause of disease or death. It has also been argued that it is difficult to estimate malnutrition's contribution to the burden of disease (Lindstrand et. al 2010, 177-178). However, according to Black et al. (2008), maternal and child undernutrition is the single largest contributor to the global burden of disease. The authors attribute 11% of the total burden, and 35% of the disease burden among children under the age of five to maternal and child undernutrition. Current estimates suggest that there are approximately 925 million hungry people in the world. The estimations reveal undernutrition to be an underlying cause of about 3.5 million deaths (Black et al. 2008).

Lindstrand et al. (2010, 178), add that the number of obese people in the world approaches the number of underweight people, but that the impacts of the two different conditions vary. Ezzati (2002 in Lindstrand et al. 2010, 189) demonstrates the significance that underweight

and overweight have for the global burden of disease. Conditions of underweight cause 9% whereas overweight accounts for only 2% of the global burden. Anemia, the most frequent micronutrient deficiency of many, accounts for 2% alone. In addition to influencing morbidity and mortality, nutritional shortfalls have documented effect on various aspects of human development, which influences productivity level, cognitive and physical functioning, and educational outcomes, among others (Black et al. 2008; Pelletier et al. 2011b).

The burden of malnutrition represents a significant development challenge for Mozambique as well. The latest Demographic and Health Survey (DHS) from 2011 shows that 42.6% of Mozambican children under the age of five suffer from stunting/chronic malnutrition. This indicates a reduction from 47% in the 2003 DHS while the prevalence of acute wasting over the same period has increased from 5.4 to 5.9%. The numbers presented do reveal that progress in the country has been made. However, when put up against an annual economic growth rate in excess of 7% over the latest decades, or compared to reduction in undernutrition rates in neighboring countries where high levels of economic growth have not been the case, the Mozambican progress in reducing malnutrition appear rather insufficient. The links (or lack of links) between economic growth and real improvements in health, nutrition and long-term poverty reduction has been referred to as puzzling (Fox 2008, 157).

#### **4.2 Causes of Malnutrition**

In the process towards improvement, governments have to deal with a broad variety of factors. A widely recognized framework for understanding the relevant factors interacting is a framework of the determinants of nutritional status formulated by UNICEF (UNICEF 1990; Black et al. 2008, 14. See Appendix 1). The framework divides the multifaceted causes into three different levels, namely *immediate causes*, *underlying causes* and *basic causes*. Immediate causes mainly relate to individual level and consist of inadequate dietary intake and consumption of too few nutrients, and to occurrence of infectious diseases such as diarrhea, measles or malaria (Black et al. 2008; Lindstrand et al. 2010). The underlying causes, which operate at household level, include elements such as access to food, health care, sanitation and water. According to Ecker and Nene (2012, 2), these problems occur largely due to poverty, inadequate feeding and caring practices, poor female education and nutrition knowledge, gender issues and lack of family planning. The underlying causes are in turn rooted in structures and influences on the societal level, which constitute the basic causes such as physical infrastructure, institutions, and the social, economic, cultural and political context

this is embedded into (Pinstrup-Andersen and Watson II 2011, 61; Ecker and Nene, 2012,2). Malnutrition can hence be seen as a manifestation of a development problem rather than just a food or health problem (World Bank/UNICEF 2002; Harris and Drimie 2012).

An aspect that may not stand out clearly from the framework, but still add important considerations is the life-cycle features of the occurrence of malnutrition. When describing this sequence Pinstrup-Andersen and Watson II (2011, 59-60) sketch out the process of a vicious cycle consisting of malnourished woman before and during pregnancy giving birth to a baby with low birth weight, leading to a stunted child with low resistance to disease and the irreversible impairments that stunting may entail, growing up to be a stunted adolescent. This adolescent may experience being less responsive to, for instance, educational stimuli, and thus may attain lower educational outcomes and reduced labor capacity. It may eventually grow up to be a malnourished woman who in turn is more likely to give birth to a child born of this kind. However, Pinstrup-Andersen and Watson (2011, 60) in the same line argue that government policy and behavioral change can contribute to breaking the cycle. Policies aiming at changing the broader contexts are presented as just as important as those narrowly directed towards aspects at the individual or household levels, as these may contribute to promoting healthy behaviors through increased availability and access to foods and services (Pinsturp-Andersen and Watson II 2011, 61). Thus, political actions in nutrition policy imply a complex process of factors at differing levels, both in technical terms in fields such as the nutrition field or behavioral sciences, and also in terms of considerations regarding institutional, political, managerial and economic reform (World Bank/UNICEF 2002).

Causes of malnutrition in Mozambique can be found along the whole spectrum of levels. However, in a nutrition country profile formulated by FAO (2011) some appear as more significant than others, with poverty to a great extent at the core. FAO states that some of the central causes of the current levels of malnutrition may be related to a Mozambican diet low on micronutrients, and very low levels of dietary diversification. Micronutrient deficiencies are now regarded as a significant public health issue, assumed to be directly related to the micronutrient-poor diet. For areas in the north, where stunting and chronic malnutrition is more widespread, food insecurity is rather common, and limitations in access to water, sanitation and basic services are significant. Natural shocks such as droughts, floods and cyclones, in certain areas pose significant disturbance for agricultural production and livelihoods of the country's population. In the first place, such disasters may affect the

wasting rates in the areas concerned. Depending on the coping options and so on, the nutritional shortfalls may in the longer run turn into stunting. Lastly, FAO (2011) also points to insufficient feeding practices as a significant cause of malnutrition, with emphasis on the role of exclusive breastfeeding. The causes highlighted by FAO coincide with aspects pointed out in the 2010 situation analysis in the preparation of the Multisectoral Plan for reducing Chronic Malnutrition (GoM 2010a). The multisectoral plan, however, also points to adolescent girls, women in reproductive age and children under 5 years as the main target groups, and emphasizes the importance of adequate care and nutritional knowledge.

#### **4.3 Nutrition Policy**

Policy is here broadly understood in line with Pinstrup-Andersen and Watson II's (2011) presentation of the term, as a plan for collective action towards set goals, and the process towards attaining these goals. Policies serve as guidelines to adhere to for actors in a field and for members of a community when safeguarding their interests (Clark 2002 in Benson 2008, 5; Pinstrup-Anderson and Watson II 2011, 30). Nutrition policy thus establishes goals of improvements in nutritional conditions more specifically and for developing countries often in terms of reduction in malnutrition rates at a population level, and in terms of improved food and nutrition security. Benson (2008, 1) argues that policies and actions of national governments are regarded as a critical component in enabling households to achieve nutrition security and in reducing undernutrition.

Various scholars and development actors have emphasized that to adequately address the complex causes of malnutrition, it is important to understand the multileveled features of the issues involved (Lindstrand et al. 2010; Menon et al. 2011, 105; Pinstrup-Andersen and Watson II 2011, 56; Headey 2012). Research also confirms that factors originate from a variety of sectors, such as mothers education, age and fertility history (see Azzarri et al. 2012), economy, agriculture and food production (see Arndt et al. 2010; Fan and Pandya-Lorch 2012; Headey 2012,) or infrastructure (Pinstrup-Andersen and Watson II). This underlines the pertinence of a statement by the Administrative Committee on Coordination/Subcommittee on Nutrition of the United Nations made in 2004: "individuals that are malnourished have been failed by many different sectors: agriculture, health, education, social welfare, finance and labor. To address malnutrition effectively requires alliances between sectors" (in Benson 2007, 323). The preceding statement is still highly

relevant and underpins the current call for nutrition-sensitive policies to drive sector-specific nutrition policies (Mwadime 2012).

In the specific case of Mozambique, the main goals and strategies of nutrition policy are formulated in the government's Food and Nutrition Security Strategy (GoM 2007<sup>5</sup>) and the Multisectoral Plan for Reduction of Malnutrition. In addition, the health chapter of the Government Five-year Plan also mentions nutrition as one of the focus areas (GoM 2010b, 25). Nutrition policies are in addition incorporated in the "social and human development" objectives of the current Poverty Reduction Strategy (GoM 2011).

The first Food and Nutrition Security Strategy (FNSSI) was formulated in the aftermaths of the WFS in Rome in 1996. Due to changes in political, social and economic context, the first strategy was revised and approved in 2007, and FNSSII now constitutes the strategy to improve food and nutrition security for the population. FNSSII defines food and nutrition security as follows:

"the Right of all people, at all times, to have physical, economic and sustainable access to food that is adequate in terms of quantity, quality and acceptance within the cultural context in order to satisfy their needs and food preferences, for a healthy and active life" (GoM 2007, 3).

The Multisectoral Strategy for Reducing Chronic Malnutrition was formulated and approved in 2010. In addition to presenting a situation analysis, an action plan is incorporated in the strategy stating objectives, responsibilities, actions and expected results (GoM 2010a). This new strategy to a greater extent explicitly attends to the involvement and responsibilities of a broader set of sectors than the preceding policies of the nutrition field. The involvement of international organizations in the nutrition field in Mozambique is also to a great extent focused on joint efforts to support the country's own strategies and priorities (See for instance REACH 2012).

The strategies and policies at national level in Mozambique are, however, mainly concerned with undernutrition and micronutrient deficiency, and not explicitly with overnutrition. From what is displayed by statistics, undernutrition and micronutrient deficiencies are also currently the most pressing problems (GoM 2010a). According to FAO (2011), however, obesity

\_

<sup>&</sup>lt;sup>5</sup> Provided over e-mail by UNICEF Mozambique and has not been found in English in open internet searches. GoM 2007 in the bibliography leads to Portuguese version.

appears to be more common now than before, and to a greater extent in urban areas, as compared to rural areas. Examples of some interventions carried out in the country is the National Health Week carried out twice a year, providing among others vaccines, deworming and vitamin A supplementation and more, with a coverage reaching 80% (now aiming for 95%). Community-based treatment options for acute severe malnutrition are being scaled up, with the establishment of production and distribution of Plumpynut, a ready-to-use therapeutic food, serving as an example (Possolo, Novele Ngovene and Arts 2012). Salt iodization was also launched in 2010, but the implementation is apparently in need of reinforcement (FAO 2011). Promotion of other fortified foods, such as orange-fleshed sweet potatoes, has also been tried (Low et al. 2007). Promotion of exclusive breast-feeding for the first six months of children's lives has been high on the agenda in general nutrition education.

#### **Nutrition-specific and Nutrition-sensitive interventions**

Adding to Ecker and Nene (2012, 2), a distinction between nutrition-specific and nutrition-sensitive policies has been increasingly highlighted. The distinction is in line with the UNICEF framework of determinants, and indicates the consensus that nutrition policy approaches has reached in recent years (e.g. the Scaling Up Nutrition Movement) and advocates a dual approach that combines addressing the immediate causes directly through *nutrition-specific interventions*, with the emerging concept of *nutrition-sensitive interventions* (Nabarro et al. 2012, Bhutta et al. 2008). Although clear definitions of these notions may not exist, some guidance can be found in the literature (Ecker and Nene 2012, 2).

Nutrition-specific interventions can in short be said to be direct interventions aimed at immediate causes of malnutrition, and treatment of symptoms (SCN 2011, 6; Ecker and Nene 2012, 2). Mwadime (2012, 153) asserts that nutrition-specific policies are rather common, and refers to policies for breastfeeding, micronutrient supplementation, food-safety or child-feeding practices as examples. Substantial research has led to knowledge about cost-effective nutrition-specific interventions to guide priorities of such, resulting in recommendation emphasizing among others the inherent opportunities of averting irreversible damage by focusing on the period from pregnancy up to the age of two (often referred to as "the window of opportunity") (Headey 2012; Bryce et al. 2008; Bhutta et al. 2008).

Although evidence has rather clearly indicated cost-effective ways to address malnutrition, the ways forward are still not clear (Bhutta et al. 2008; Headey 2012). However, it has been

argued that for nutrition-specific interventions to be substantially more effective, successful and sustainable, they rely greatly on support from *nutrition-sensitive* policies and interventions. Ecker and Nene (2012, 3) describes nutrition-sensitive intervention as "interventions that explicitly aim at improving nutrition indirectly or achieving nutrition as a 'positive externality' of activities primarily targeted at non-nutrition factors of human well-being". These interventions are to a greater extent linked to the underlying and basic causes of malnutrition and enhance the expressed need for interventions across sectors with potential to contribute to improved nutrition.

According to Mwadime (2012), nutrition-sensitive interventions, to a greater extent than do nutrition-specific interventions, require dedicated budgets, changes in operational processes and new institutional frameworks, which in turn require multisectoral commitment. The importance of addressing underlying causes originating in other sectors is also elucidated by Benson (2007). He argues that health and agriculture sectors, with their mandates and obligations related to provision of preventive and curative health services, are at the core of nutrition efforts; however, in the continuance of this Benson discusses how several other sectors also represent key efforts. Promotion of hygienic environments is closely linked with water, sanitation and housing; the significance of wage income affects access to food and health services; the education sector assists in promotion of broader knowledge of health, nutrition and caring practices, as well as ensuring a functioning environment for funds, planning and coordination. The shift towards putting more emphasis on other sectors can also be seen explicitly in Mozambique with the current Multisectoral plan and the Food and Nutrition Security Strategy (GoM 2007; Benson 2008, 52; GoM 2010a).

#### 4.4 Nutrition on the Agenda

Recognition of the importance of adequate nutrition has risen globally in recent decades (Mwadime 2012). Following such international initiatives as the World Food Summit in Rome in 1996 and the Millennium Summit in 2000, goals related to fighting hunger and malnutrition have been explicitly formulated and stated in many of the world's countries. The WFS led to a goal of halving the number of people suffering from hunger by 2015 (FAO 1996). The Millennium Development Goal 1, which followed the Millennium Summit, also has a formulated target of halving, between 1990 and 2015, the proportion of people who suffer from hunger (United Nations 2000). In addition, progress towards other Millennium Development Goals is regarded as directly connected to nutrition (Ecker and Nene 2012, 3).

For Mozambique, the commitments both to WFS and the Millennium Development Goals led to elaboration of Food and Nutrition Security Strategies as a first step, and the Multisectoral Plan for Reducing Chronic Malnutrition in 2010.

Strong reasons, both in intrinsic and instrumental terms, exist for giving priority to nutrition in national priorities and policies, and for doing so in an adequate and effective way. (Benson 2008). The existing knowledge about the causes and consequences of malnutrition is one of the significant grounds on which arguments for appropriateness and relevance of addressing the related problems are formulated (See Bhutta et al 2008; Black et al. 2008). Evidence has also pointed out a set of cost-effective interventions. These may guide investments in nutrition, and ensure a high degree of cost-efficiency (Bhutta et al 2008). However, for this to happen, it is a precondition that the problems and their scale must be recognized and understood by policy-makers (Benson 2008; Bhutta et al. 2008; Pinstrup-Andersen and Watson II 2011).

Another argument for viewing nutrition as a policy issue rather than only an individual or household problem relates to functions and responsibilities of governments per se. Ecker and Nene (2012, 2) state that "governments have the responsibility to establish functioning institutions and infrastructure enabling the poor to achieve nutrition security and to provide services for treatment and prevention of malnutrition and related diseases". Benson (2008) also argues that responsibility lies with governments. He states that:

"if a government accepts that it has some responsibility for promoting social and economic welfare of its citizens, among its duties will be the provision of institutional, infrastructure, and resources to its citizens – most notably health services, clean water, sanitation, education, and reliable access to food – without which many households, particularly poor ones, will remain undernourished" (Benson 2008, 1).

Pinstrup-Andersen and Watson II (2011, 319) make similar points arguing that countries' commitments to the international summits have been important to get countries to acknowledge and declare people's right to adequate, safe and culturally appropriate food. Implicit in these declarations is the acceptance of duties and obligations of governments to improve the nutritional conditions of their populations. Rights-based approaches to food and food as a basic human right also frame reasons for giving priority to nutrition on the development agenda (Pinstrup-Andersen and Watson II 2011, 319-320). Adding to this,

heightened awareness around issues, losses and costs of nutritional shortfalls has called governments to prioritize nutrition on their agendas, as a public policy concern.

At the same time, according to Pelletier et al. (Forthcoming), an increasing demand has arisen for knowledge and evidence related to large-scale implementation of nutrition interventions, as this still exist only to a very limited degree. The Lancet five-paper series from 2008 on Maternal and Child Malnutrition have contributed to abundant evidence documenting lifelong damages and productivity losses as some of the consequences of nutritional shortfalls. The series stands out as a milestone in the literature on the topic, and it is widely recognized and utilized in planning and designing interventions (see Black et al. 2008; Bryce et al 2008; Bhutta et al. 2008; Morris et al. 2008. See also Headey 2012; Pelletier et al. Forthcoming). According to Pelletier et al. (Forthcoming), the recommendations that emerged from the series have had significant impact on strategies and policies both at national and global levels. In contrast to other literature referring to the series, Pelletier et al. have proposed critical remarks to the status that the series has gained: the recommendations were put forward despite absence of peer-reviews and despite the lack of emphasis on multisectoral aspects of nutrition policy (Pelletier et al. Forthcoming).

The Scaling Up Nutrition movement, to which Mozambique among around 30 other countries have committed, as mentioned in section 1.2, is one of the most recent comprehensive international initiatives in the nutrition field. In their 2011-2012 progress report it is stated that an increasing number of national leaders and governments are now bringing nutrition to the center of national development and economic strategies (SUN 2012). Although their progress report may imply a danger of bias, the argument is made among others on basis of four indicators that the participating countries act towards, in addition to the overall indicators of malnutrition. These indicators are: - participation in multi-stakeholder platforms; - ensuring coherent policy and legal framework relevant for nutrition (e.g., marketing and quality of breast-milk substitutes, law to govern maternity leave which facilitates time and space to breastfeed, food fortifications standards); - alignment of nutrition programs around shared goals (both nutrition-specific and nutrition-sensitive, prevention and treatment, existing challenges and emergencies); and - tracking and mobilizing resources for actions with potential to improve nutrition (costed nutrition plans, resources aligned behind agreed priorities). Tracking systems to assess progress to examine advances over time are being established (See SUN 2012). However, with the overall indicator of malnutrition rates, time will tell if these advances actually materialize for the people on the ground, or if documents are drafted but not finalized, as Mwadime (2012) describes, is a more adequate description of the case.

In addition to attention to nutrition at national levels, 2012 also saw a number of significant global initiatives emerge. These include "New Alliance for Food Security and Nutrition" (by the African Union, the New Partnership for Africa's Development, the G8 and the Comprehensive Africa Agriculture Development Program), the G20 highlighting nutrition, the Zero Hunger Challenge launched at the Rio+20 Conference and the "Hunger Event" at the London Olympic Games. The initiatives are regarded as key for resource mobilization globally (SUN 2012).

### **Chapter 5: NUTRITION POLICY CONSTRAINTS**

In this chapter, the implementation issues that constrain national nutrition policy efforts in developing countries are presented in thematic sections. These are cross-sectoral coordination, nutrition awareness in policy, continued political commitment, capacity constraints, lack of institutional foundation and resource constraints. The various sections present what the topics around which the literature in the nutrition policy in developing countries is centered. No clear common borders distinguishing the topics stand out, and the topics appear to be to a great extent interlinked. Each of the thematic sections presented is followed by a brief subsection where attention is directed towards the case of Mozambique.

It is however important to stress that the available research literature about nutrition policy in Mozambique is limited. Central sources include: an institutional study by Todd Benson from 2008; a Landscape Readiness Analysis (GoM 2010c) carried out as a preparation to the current multisectoral plan for reducing chronic malnutrition; an in-depth nutrition supplement to the PARPA II Impact Assessment Report (NSG 2009); and a nutrition country profile by FAO (FAO 2011). Due to close linkages between health and nutrition, and to nutrition being a subdivision under the ministry of health, literature with the health sector in focus is also regarded as highly relevant.

#### 5.1 Coordination

The need for well-functioning coordination has attracted significant attention as a constraint to effective actions to improve nutrition. Reinforced by an understanding of malnutrition as an outcome of a multileveled causal process is the need for an approach directed at multiple areas of society. Consequently, efforts are needed from a range of sectors to adequately and sustainably deal with this challenge. This factor, coupled with the necessary donor involvement and that of a multitude of organizations taking part in the policy implementation, create a substantial need for coordination. The World Bank identifies this coordination as a significant challenge of management in nutrition policy (World Bank 2006).

Of the scholars on the topic, Todd Benson appears as a central scholar that treats coordination with more depth. Garrett and Natalicchio (2011) with their *Working Multisectorally in Nutrition*, also offer valuable insights. Garrett and Natalicchio (2011, 150) assert that working multisectoral approaches is a complex process requiring the facilitation of coordination and cooperation both horizontally and vertically, across multiple actors and levels, and that this implies significant operational challenges for the process. Benson (2007), in line with Garrett and Natalicchio, also points to cross-sectoral coordination as a constraint. Benson refers to Levinson (2002), who explains that multisectoral approaches to nutrition is not new and describes how multisectoral planning for nutrition first entered the debate in the 1970s. However, due to the lack of systematic and effective coordination of the efforts, combined with lack of continuous priority from political leaders, the multisectoral coordination approach failed to display improvements in malnutrition rates. Zimbabwe is in this respect cited as a counter-case of well-executed coordination function, whose success-story depended on key individuals in the institutional home of nutrition, and on strategic alliances with other ministries (Levinson 2002).

A common but not inherent element in nutrition policy is, according to Benson (2007, 22), the establishment of an institution to coordinate the formulated policy across sectors. It is argued that efforts by the different sectors are unlikely to be efficient if they act independently, and that some degree of integrated approach is thus necessary (Benson 2007; Harris and Drimie 2012). However, this sort of action requires objectives, priorities and resources to be aligned across sectors. In this regard, Pearson and Ljungqvist (2011) call for better multisectoral governance, management and coordination. This underlines the importance of the integrated approach for which Harris and Drimie (2012, 1) argue: aligning priorities and allocating

resources according to agreements across sectors. This approach is also in line with key intents of the SUN initiative (See Nabarro et al. 2012).

Harris and Drimie's (2012) contribution regarding integrated approaches adds an interesting element to the focus on the multisectoral approach to nutrition. They state that although there is consensus in recommendations in favor of multisectoral action, there is still no consensus about how this can best be institutionalized and implemented. Garrett and Natalicchio also highlight this point, arguing regarding the how-to aspect that "despite the importance of this, we know no comparative study in the past 20 years that has looked at this question in depth" (2011, 150). Such statements clearly highlight the need for research to not only identify and reveal the problems. The need for action oriented research and evidence able to also indicate potential solutions to the problems is equally important.

In addition to highlighting occurring problems of coordination, Benson (2007) highlights two major reasons for why the cross-sectoral efforts and the agencies in the lead of coordination failed in the 1970s. The first is the multiple functions that coordination agencies perform when having to combine coordination with advocacy and mobilization of resources. He suggests that failure to have a balanced relationship among these functions caused dissatisfying outcomes and dwindling commitment. Second, Benson points to the authority of the coordination agencies and their scope of action. Here, he argues that agencies were too involved in implementation, rather than having some degree of authority over relevant sectors, which would enable them to carry out interventions (see Benson 2007, 324-325). In similar fashion, Bryce et al. (2008) add an international aspect to the coordination problems. They write that:

"Coordination between people working in nutrition at national level is weak or non-existent, and this situation is exacerbated by an international nutrition system that has little respect for country-generated plans and local timetables for planning or the political process" (Bryce et al. 2008, 523).

In Harris and Drimie's (2012) review of factors that constrain nutrition policy, weak coordination is highlighted as one of eight main implementation problems. They refer to Swart, Sanders and McLachlan (2008), who in turn point to a model by Morris et al. 2008 in the Lancet series. However, Morris et al.(2008) are mainly concerned with involvement of actors from the international development community, such as UN agencies and programs, regional and international development banks (for example the World Bank, the African

Development Bank, and the Asian Development Bank), charity organizations, bilateral aid agencies, universities and research centers. The concern is that despite all these actors being concerned with development at some level, the group is not homogenous, and holds divergent objectives, approaches and products. Thus, reaching consensus and common priorities may not be easy. According to Morris et al. (2008, 609), although the potential for mobilized action may be great, involved organizations often compete for attention and resources, complicating the coordination even further. In addition, Benson (2008, 23) argues that such competition also appears at country levels among the various sectors. This constraint is further elaborated on in section 5.6, regarding Financial resources.

#### **Coordination Constraints in Mozambique**

The need for significant coordination in the Mozambican public sector in exemplified by the fact that there are more than 25 development partners (multilateral and bilateral) involved in the health sector alone (WHO 2009). Inadequate coordination in the nutrition field in particular, also appears as an important finding in the Landscape Readiness Analysis in 2010. This inadequacy, the analysis argues, represents a hindrance to multisectoral responses to the malnutrition, and various weak points are in this regard identified (see GoM 2010c). Among others, SETSAN<sup>6</sup>, the agency with the mandate to coordinate the national activities to improve food and nutrition security, was found to lack sufficient autonomy to carry out tasks effectively (GoM 2010c). These statements are, however, not explicitly linked to the current Mozambique in Benson's 2007 publication.

SETSAN was established in the wake of the WFS in 1996 and the establishment of the unit was closely linked to the first Food and Nutrition Security Strategy in Mozambique. The unit was structured under the Ministry of Agriculture, and according to Benson (2007) this structuring influenced how the food-component gained primacy over nutrition in the understanding of the strategy. Benson also argues that at that time, SETSAN proved to be of limited value in terms of reducing malnutrition and that the agency did not support advances in nutrition in an effective way (Benson 2007, 329; Benson 2008, 54). In the continuance of this, an interesting and relevant point is made that coordination in nutrition only represent a constraint in need of improvement to the extent to which nutrition itself is recognized as

\_

<sup>&</sup>lt;sup>6</sup> Secretariado Técnico de Segurança Alimentar e Nutricional - Technical Secretariat for Food Security and Nutrition

politically important (Benson 2007). This aspect, combined with what is treated in section 5.2 about awareness and political commitment, may represent a good example the close interrelatedness of the various implementation challenges.

Since Benson's (2008) study, the landscape analysis, and the Impact assessment report, the Multisectoral Strategy for Reducing Chronic Malnutrition has been developed and approved and is now being implemented under the responsibility of SETSAN (GoM 2010a, FAO 2011). The development of a multisectoral strategy is in accordance with recommendations made in all of the previous mentioned documents in this section. It is also in line with the approach called for by the nutrition community, including the SUN initiative (see section 4.3). Supporting the building of coordination capacity is, however, now a central objective for international initiatives, both the SUN and the REACH (SUN 2012a; REACH 2012).

Pelletier et al. state that in countries where decentralization takes place, coordination issues are further complicated. In Mozambique, the state remained highly centralized until the 1997 municipal legislation was adopted. However, in recent years decentralization has become a crucial element in the government's strategies both to reduce poverty and to improve service delivery. Reforms have thus taken place, and responsibilities and functions have gradually been transferred to lower tiers of government (Fox 2008, 177-180, 257). This is confirmed among others by the current Poverty Reduction Strategy Paper (GoM 2011), accompanied by a recognition that decentralization entails challenges. Challenges of decentralization are, however, in the Poverty Reduction Strategy Paper linked to challenges of governance and capacity rather than to increased demand for coordination.

#### 5.2. Nutrition awareness in Policy and Political Commitment

Political commitment is also emerges as a key challenge, and Bryce et al. (2008, 514) refer to this as a rather popular explanation for weak nutrition programs. Bryce et al. define political commitment in terms of allocation of resources, similar to Mwadime's (2012) definition, which highlights that resources allocation is a reflection of political commitment. The results from Bryce et al.'s studies in the majority of the countries point in the direction of low commitment to nutrition as a policy area. The study also highlighted that the presence of policy and plans is not a sufficient indicator of commitment (Bryce et al. 2008, 513). The Africa Union, in the current Nutrition Strategy Paper, also locates issues of political commitment high on the agenda, on the grounds of apparent challenges (see AU 2005). The

AU draws this conclusion based on the understanding that nutrition strategies and plans should be seen translated into tangible actions. If this translation does not happen, commitment is not strong enough.

In the literature reviewed, aspects of political commitment appear as not only a significant constraint per se, but also as closely linked with an apparent lack of nutrition awareness and advocacy. A case-study contribution by Shenute Namugumya (2012) from Uganda shows the links between these challenges. She states that nutrition knowledge among actors in the nutrition field may result from advocacy to increase knowledge, which in turn may increase political commitment. Shenute Namugumya argues that there is low awareness about the significance of malnutrition and that this lack of awareness has resulted in low priority to nutrition issues. Shenute Namugumya also highlights low awareness about roles and responsibilities among relevant stakeholders (Shenute Namugumya 2012).

Benson (2007, 329) concludes, in his article about cross-sectoral coordination, that maintaining political commitment poses one of the most significant challenges to the well-functioning of the coordination, and that advocacy has not been undertaken efficiently by the coordination units in the study countries. Mechanisms to safeguard political support are referred to as critical. To achieve and sustain commitment for nutrition, Bryce et al. (2008) highlight the importance of "policy entrepreneurs" and "nutrition champions". The role of these are referred to as crucial, and in the extension of this, the need for these entrepreneurs to have skills and relevant human capacities such as interaction with other leaders, and to have the ability to strategically position themselves in the policy environment are highlighted. Bryce et al. in addition emphasize the need for a stable nutrition agenda to achieve continued commitment, and state that study participants identified the period of transitions originating in political shifts as a major constraint (Bryce et al. 2008).

Mwadime (2012, 154) argues that nutrition is seldom a top priority on the policymakers agendas, due to this is lack of awareness and attention to nutrition on the part of political leaders. Chronic malnutrition is particularly neglected, as opposed to acute conditions of famines and starvation, which to a greater extent appear as emergency situations. Banik (2010, 228-229) in his wiring on poverty and development discusses this distinction briefly. Starvation or famine may see impressive responses and mobilization and is seldom linked to policy failure or inadequate administrative responses. However, Banik points out that if

governments and other actors had adequately recognized, understood and addressed the issues of malnutrition at an earlier stage, the occurrence or impact of the crisis might not have reached the devastating dimensions. Mwadime (2012, 155) accentuates similar arguments: While emergency situations tend to gain attention as urgent, chronic malnutrition tend to be treated as business as usual, as a "norm rather than a problem", and a part of the environment in which governments operate as best they can on the basis of available resources and capacities (Mwadime 2012). From Mwadime's perspective, it is evident that there is a need to focus on factors that make politicians feel responsible for nutrition as a social and societal problem and facilitate conditions that raise awareness about the cost-effective interventions available.

As with coordination challenges, lack of high-level interest in nutrition was identified as one of the core implementation problems in Morris et al. (2008)'s study. This study adds that in addition to failing to understand the serious consequences of malnutrition, the community tends to advance the nutrition on the agenda along the lines of narrow efforts.

Finally, Benson also identifies nutrition awareness as an important constraint in his 2008 publication. Benson (2008, 22) asserts that, since undernutrition requires a certain knowledge level to be able to identify, it often remains hidden. This appears both on the individual level among parents, as well as among policymakers. When its presence and scale is not visible, and costs and damage are hard to see, the importance of addressing it is often devalued. This poses a challenge in building demand for action and for exploiting the inherent potential. The lack of recognition of malnutrition as a determinant for health and development is also identified as an obstacle in Bryce et al.'s (2008, 54) study, which mentions "ignorance or lack of recognition of the causes and implications" of malnutrition. Field and Levinson also touch on issues of awareness, but their approach emphasizes the aspects of political commitment tied to the capacity of government bodies. A similar case can be found in the African Unions Objectives in the current Nutrition Strategy: Increasing awareness is their first stated objective, but lack of awareness cannot be found explicitly stated among the challenges. Political commitment stands out as the most likely and closely linked challenge expressed (AU 2005).

#### **Nutrition Awareness and Political Commitment in Policy in Mozambique**

At the time of Benson (2008)'s institutional study, attention to nutrition policy processes appeared to be a state of decline in Mozambique. Benson argues that there appeared to be lack of vision about what role nutrition should have in the activities coordinated by SETSAN. Reasons for this included lack of knowledge about nutrition as a public policy concern and limitations in available resources (Benson 2008, 52). Regarding the government, Benson (2007) argues that there is a lack of urgency on the issue, and that the public understanding of the burden that malnutrition poses is weak. There seemed to be a tendency towards a primacy of food over nutrition in the understanding of food and nutrition security. Benson raised similar point, presented in the section about coordination regarding SETSAN. This was also pointed out in the landscape analysis two years later (GoM 2010c).

According to Benson (2008), responsibilities related to improved nutrition were given to other sectors than health with the launce of Food and Nutrition Strategy first launched already in 1998. The landscape analysis about ten years later, found that there still, except from in the health sector, appeared to be lack a clear understanding of how other relevant sectors could contribute to better nutrition (GoM 2010c). This may be indicative of values that the multisectoral plan could add. By presenting a chain of objectives, interventions and expected outcomes, combined with giving responsibility for such to specified sector(s), the plan entails potential for more clarity around who to hold accountable for potential shortfalls.

In Benson's (2008, 52; 2007, 328) analysis it is pointed out that the Ministry of Planning and Finance, the chief Nutritionist and an expatriate nutrition advisor in the nutrition division in the Ministry of Health played a key role in the formulation of nutrition policy. He also states that the presence of these appeared as less obvious and surely had declined, and as the former key actors moved on in their careers they lost influence over policy processes. These findings seem to have close linkages to the aspect referred to above, mentioned by Bryce et al. (2008); the importance of policy entrepreneurs and nutrition champions. However, even though new candidates may rise to the challenge, periods of transition require time, as do building up a foundation of experience, confidence and network for new candidates.

As a consequence of periods of low visibility of nutrition champions, Benson suggests that attention to nutrition in policy and in resource allocation would suffer (Benson 2008, 53). Hence the need for advocacy to promote knowledge and political commitment can be

assumed as highly relevant to ensure predictability and stability for nutrition. Seen in combination with the shortfalls in human capacity and human resources in nutrition policy presented in the proceeding section, the need may be reinforced.

Despite potential lack of political commitment and low awareness about nutrition, some positive trends are highlighted by SUN. SUN claims that through 2011 and 2012 high-level support for nutrition has increased considerably (SUN 2012). Awareness and commitment however require time to materialize, and on the grounds of the SUN movement's progress paper and its annexes, we are mainly given information regarding policies, legislation and costed plans in place. Taking Bryce et al.'s (2008) argument presented above into consideration, that the presence of policies and plans is an insufficient measure of political commitment, the information provided in the report gives little actual indication regarding political commitment.

#### 5.3 Lack of Capacity and a need for definition

According to Potter and Brough (2004, 336), the need for capacity is so widely mentioned in the literature that it has become a cliché, and there is now a need for definition. Without being clearly defined, the term was found rather often in a variety of combinations used in the literature reviewed. Most common concerns were focused around systemic capacity building or capacity development (Potter and Brough 2004; Pearson and Ljungqvist 2011, 121), strategic capacity (Pelletier et al. 2011b; Müller and Coitinho 2011), country-level capacity and functional capacities (Pearson and Ljungqvist 2011), institutional capacity and systemic capacity constraints (Pelletier et al. 2011a, AU 2009) to mention some.

The African Union Nutrition Strategy identifies the capacity to respond multisectorally as a central and occurring challenge among member states. They also highlight the issue of technical capacity, which is associated with shortage of availability of nutritionists (AU 2009, 11). The World Bank (2006), in their *Repositioning Nutrition as Central to Development: A Strategy for Large-Scale Action*, also states that weak capacity is one of the main constraints in apparent failures to scale up. The World Bank document do, however, direct attention towards capacity being dependent on political commitment, since developing capacity requires on commitment to do so (World Bank 2006, 107). When discussing capacity, attention is directed towards the usefulness of distinguishing between different forms of capacity, and the need to include governance and corruption in the subject of capacity

building. This is further emphasized as an important component in the need for capacity building, especially in Sub-Saharan countries (World Bank 2006, 111).

Potter and Brough's (2004) entry on capacity approaches difficulties related to the lack of clarity around a definition, and sketches out a framework to guide the understanding of capacity and the many dimensions of its potentially related challenges. The article provides a useful overview of the various components from which capacity challenges may originate, and how these are tied together in a hierarchical way. Potter and Brough's contribution is however concerned with health sector reforms in general, and not with nutrition specifically (See Potter and Brough 2004).

In Bryce et al. (2008, 522) building operational capacity is highlighted as one of the main challenges for addressing nutrition at national level. This study reported the need for stronger operational capacity apparent in the majority of 18 of the countries examined, and the capacity for training came out as particularly weak. In the same Bryce et al.'s study the needs related to management of broader and more integrated approaches in nutrition programming were emphasized. Regarding what is included in operational capacities, which apparently needs strengthening, the following is stated:

"The operational capacities include the rest of the policy continuum: programme and policy design, monitoring, and assessment and adapting implementation and management to country context, policy and programme oriented research and analytical capacities; pre-service and in-service training and orientation for cadres and professionals from community to national level and in multiple sectors; and the ability to access, manage, adapt, and use international knowledge, norms, guidance, and expertise" (Bryce et al. 2008, 522).

In Bryce et al.'s (2008) study, attention is also directed towards strategic capacities. They state that almost all of the 20 highest-burden countries, from self-reporting of capacity issues, reported inadequate availability of strategic capacity. Capacity to deepen and sustain the commitment to the fight against malnutrition is also included in their understanding of strategic capacity, which they argue is "urgently needed" (Bryce et al. 2008, 522). In similarity with operational capacity, the concept of strategic capacity appears as a very broad and inclusive concept. It contains leadership, knowledge and skills, as well as human resources to guide and shape the nutrition agendas at the different societal levels.

Efforts to strengthen operational and strategic capacity in view of the assertions by Bryce et al. (2008) would however require a very comprehensive approach. Improvements would demand efforts aimed at both at institutions, structures and behavioral aspects as well as interactions between these. The multiple elements encountered in the quote may be indicative of why implementation issues may be difficult to study; The notions are either very broad, or when attempting to distinguish the different constituents they appear as so closely interlinked that they cannot be studied separately.

Müller and Coitinho (2011) also discuss the need for developing capacity. On the basis of a meeting with country representatives from governments from low- and middle- income countries, it is argued that there is an urgent need for initiatives to sufficiently deal with development of strategic capacity. Pelletier et al. (2011a) direct attention to human and organizational capacity constraints related to the creation of concrete operational plans, which constrains the process of implementation. They argue that of the spectrum of the policy activities that need improvement, priority should be given to strengthening strategic capacity (Pelletier et al. 2011a). Along the same lines, Pelletier et al. (2011b, 67-68) frame strategic capacity almost as a tool to overcome the challenges of coordination, commitment, coherence and consensus. Pelletier et al. (2011a) in their documentation and analysis of country experiences with the Main-streaming Nutrition Initiative refer, to the weak strategic, technical and managerial capacities on the ground in explaining why multi-stakeholder platforms were unable to transform political opportunities into national strategies and plans.

However, just as Bryce et al. (2008) identified issues of capacity in a very broad sense, Pelletier et al. (2011a, 2011b) include challenges both of coordination, consensus, commitment and coherence in the notion of strategic capacity. The notion, therefore, also from Pelletier et al. appears as a useful a concept for theoretical purposes rather than that of practical applicability aiming to improve a situation of weak strategic capacity.

Capacity is also discussed in terms of human capacity, and is here merged with human resources. Human resource constraints direct attention to issues of availability of qualified educated and trained staff in the respective areas. This is mentioned in various contributions, with direction towards number of different staff categories available, internal workforce migration to private sector, challenges and shortfalls in the educations, to mention some (See e.g. Morris et al. 2008; Benson 2008; Harris and Drimie 2012). Morris et al.'s (2008) study

highlights the scarcity of adequately skilled personnel as one of the core constraints to nutrition programming.

## Capacity constraints in Mozambique

Capacity constraints, not surprisingly, are undoubtedly present in Mozambique, be they institutional or human. The country's history creates conditions for institutional development that so far have been regarded as limited. Only 20 years have passed since the peace agreement. This issue has been treated by Newitt (1995 in Staal Jenset 2005, 21). By quoting Newitt, Staal Jenset argues that the lack of administrative and political experience among Mozambicans, and the fact that colonial administrative elite were significantly in the lead until rather recently, has resulted in serious consequences for Mozambique as an independent nation. Staal Jenset (2005, 21) argues that such "lack of democratic experience" presents obstacles to democratization. Weaknesses in institutional capacity in general, and not specifically in the nutrition field, are highlighted also by among others Macamo (2006) and Fox (2008). The Poverty Reduction Strategy furthermore points to corruption and governance as important issues in need for improvement (GoM 2011, 13).

Institutional capacity is also underpinned by human capacity and by the human resources operating within the respective institution. Shortfalls in human resources and human capacity can be regarded as highly relevant for Mozambique. The nutrition related PARPAII Impact assessment exemplifies this by asserting that the human resources in nutrition is low, and only counts one-third of the total capacity planned for (NSG 2009). Benson (2008, 53) refers to the level of human capacity for nutrition programming as "dangerously low", and significantly lower than in the three other countries in the study (Ghana, Nigeria and Uganda). The current WHO Country Cooperation Strategy (WHO 2009) gives insights into the relevance of these issues in the health sector and highlights human resource capacity as by far the most significant obstacle to delivery. Fox (2008, 151) is also in agreement with this assertion. In 2006, the distribution of nurses was counted at 0.03 per 1000 inhabitants, and doctors counting as little as 0.21 per 1000. This makes Mozambique one of the countries in Africa with the lowest density of educated health personnel. The skewed distribution of health personnel, significantly favoring urban areas, is also highlighted along with difficulties of training institutions to sufficiently respond to growing demands for a larger workforce (WHO 2009, 4).

Lack of human resources in nutrition policy is an aspect commented on in Benson's study. Benson (2008) highlights shortfalls in human resources as a serious obstacle to effective operation. Like the Staal Jenset study mentioned above, Benson explicitly highlights the relevance of the country's colonial history as a key factor contributing to these issues. The Landscape Readiness Analysis explicitly identifies human resource as a significant constraint for nutrition policy (GoM 2010c, 14; NSG 2009, 26-27). Human resources specialized in nutrition are lacking along the whole spectrum of service delivery: in areas of coordination, planning, implementation, supervision, monitoring and evaluation. It is also pointed out that the responsibilities in the nutrition areas are often given to individuals who have other responsibilities as their main function, and thus often make nutrition a secondary priority (GoM 2010c). In the nutrition focused supplement to the PARPA II Impact evaluation, the lack of technicians in nutrition is confirmed. The document, in addition, reveals that between 2003 and 2009 development in education and training of technical staff shows significant discrepancies from stated objectives and from what was estimated as necessary. The regional distribution of technical nutrition staff does not display a pattern similar to the malnutrition rates, but shows the same tendencies as the broader health workforce (NSG 2009, 28-29; Sherr et al. 2012).

Last, a relevant issue for both health staff and nutrition staff are the difficulties of retaining motivated staff in the public sector due to competition with a growing private sector, NGO's and opportunities in South-Africa (Benson 2008, 36; WHO 2009). A study by Sherr et al. (2012) provides evidence related to challenges of internal migration of the health workforce. All though the participants were exclusively physicians, the study still offers insights to push and pull factors as well as indications of potential consequences for the public sector service delivery (Sherr et al. 2012).

### **5.4 Lack of Institutional Foundation**

Lack of an institutional foundation (Levinson 2002), an institutional home (World Bank 2006) or "poor sector fit" (Benson 2008) also emerges as a feature constraining nutrition policy efforts. The challenge that this poses may be related to, and reinforced by, the multisectoral approach that the international nutrition community argues for, and to matters of clarity in roles and responsibilities. Questions of institutional foundations do not seem to have gained as much explicit attention as, for instance, coordination or capacity constraints. Nevertheless, the relevance still appears as significant due to the broad consensus about the need for a

multisectoral approach and the seemingly little knowledge about the how-to aspects of implementing such (SCN 2011, 6; Garrett and Natalicchio 2011).

Benson (2008) relates aspects of cross-sectoral coordination to the multisectoral nature of nutrition, and points to how this creates two challenges. First, multisectoral approaches may result in a situation in which no one formal sector is expected to take primary responsibility. This is referred to as poor sectoral fit, and is assumed to result in pragmatic efforts where nutrition is given secondary priority, devaluated below the sectors' primary mandate. Second, Benson argues that for such cross-cutting issues as nutrition to be prioritized, individual leadership is crucial. In policy, poor sectoral fit is a danger in that no leader of institutions or departments formally sees him- or herself as responsible or in charge of the process. In this regard, Benson (2008, 23) also highlights the need for leadership of coordination for operations to meet their potential. Also, as long as the sectors involved are not clearly led or if they are not in agreement over common priorities, the environment for collaboration and coordination is more easily challenged by competition for the same scarce resources (Benson 2008; Ecker and Nene 2012).

The World Bank (2006) demonstrates awareness about challenges tied to lack of institutional foundation mainly by referring contribution by Levinson (2002). The debate about where the institutional home of nutrition should be is referred to as long-standing by the World Bank, and Levinson draws the lines back to the 1970s, when the concept of multisectorality was first introduced in nutrition programming.

Lack of institutional foundations can also be derived from Bryce et al.'s (2008) contribution. They exemplify the problem by explaining that low visibility of nutrition on, for instance, the health agenda can be justified by arguing that nutrition should be, or is addressed, through broader poverty reduction strategies, due to the multidimensional features of it. As the responsibility does not fall clearly on one certain sector, limitations in to what extent one sector can be held accountable for shortfalls arise. This lack of clarity seems related to the comments made in 5.2 regarding values that a multisectoral plan may promote.

#### **Lack of Institutional Foundation in Mozambique**

This issue has not been found explicitly commented on in the case of Mozambique. Mozambique however, constituted one of the four countries in Benson's (2008) study.

Related issues may also be found reflected in terms of constraints to financial resources. In that regard, the NSG (2009) highlights that due to the fact that few of the central actors in nutrition work with nutrition specifically, and that since nutrition is regarded as integrated into the other programs of the respective sectors, it is difficult to decide what priority nutrition is actually given. As noted in the coordination section, the nutrition division is now a subdivision in the Ministry of health, while the responsibility of coordination of the implementation of the multisectoral plan is on SETSAN located under the Ministry of Agriculture (Benson 2007).

#### 5.5 Financial resources

Resource constraints, along with the scale of development problems, appear almost as an inherent feature in the definition of developing countries. In this regard, the World Bank argues that "many countries with serious undernutrition problems need external assistance to help them scale up nutrition services" (World Bank 2006, 101). A related statement to this is found in Ecker and Nene (2012), who argue that funding to subsectors of nutrition seems to be insufficient relative to the scale of the current problems. It is argued that this is the case both in government budgets and in the development assistance and donor community.

Contributions in the literature related to less obvious aspects of financial constraints in nutrition, direct attention towards possible solutions rather than revealing that the constraint exists. These contributions, point for instance to mobilization of financial resources for nutrition specifically, or to finding cost-efficient solutions and implementing these at scale (Morris et al. 2008; Bhutta et al. 2008). Following the Lancet series on Maternal and Child undernutrition Horton et al. in 2010 carried out a rather extensive estimation exercise to estimate how much additional funding would be required to scale up nutrition according to the current needs. The calculations built on the evidence found by Bhutta et al. (2008), and make suggestive conclusions on how much funding would be needed to achieve 100% coverage of the 13 cost-effective interventions in the 36 highest-burden countries, which carry 90% of the total burden of malnutrition. However, challenges arise. This would require successful implementation combined with additional funding needs, at a time when funding is already constrained. Horton et al. (2010) state that the current economic crisis is a highly relevant concern to resource availability and that there is a possibility that the crisis might deepen the issues. In their contribution, Horton et al. state that "Even a 1 percent decline in developing country growth rates could trap an additional 20 million people in poverty (World Bank 2008a in Horton et al. 2010)". If, in addition to such developments, donor countries need to cut back on donations, the issues may become even more pressing. Along the same lines, Banik (2010, 35) claims that there is an increasing concern that poor countries will suffer devastating consequences of the crisis. A worsening of the food crisis as well as reductions in aid flows are some of the potential impacts presented.

Questions of how much governments allocate to nutrition compared to other development challenges, appears to be an issue with little explicit focus. However, Mwadime (2012, 156) and Bryce et al. (2008), on their sides propose that resource allocation represent a reflection of political commitment, as mentioned in 5.2. In the continuance of his suggestion Mwadime (2012) argues that governments particularly in eastern Africa tend to leave nutrition financing almost entirely to donors. This observation was also found in Benson's study (Benson 2008, 24). A statement related to allocation funding to nutrition is also encountered in Horton et al., who argue that "Governments already invest substantial amounts in nutrition activities", referring to India as an example, but also noting that "Other countries are making allocations as well, albeit not always for cost-effective and well-targeted programs" (Horton et al. 2010, 42). This reveals existing potential and usefulness for the findings of Bhutta et al. (2008) and their suggested cost-effective interventions.

The Standing Committee on Nutrition (SCN 2011) also offers insights into aspects of funding. According to SCN, funding remains a key constraint related to the urgent need for scaling up cost-effective nutrition programs to a national coverage level. In addition, the need to base planning on accurate costing is highlighted and the challenges of managing this are emphasized further (SNC 2011, 8, 30-32). SNC also argues that there is a tendency to allocate funding to nutrition primarily in situations of emergency, and hence funding is, to a high degree, unpredictable. The need for predictability in funding is stressed.

Along with the fact that a substantial part of such funding originate from external funding, the mobilization around emergencies may indicate a worrying dilemma worth mentioning. On the one hand, if a government places nutrition high on its agenda, allocate funding to the cause, but do not succeed to reach the set goals, it is regarded as a policy failure, and the actual allocation of funding could be questioned and reduced. The reasons for the failure may not be given significant attention, but could, for instance, originate in complex implementation issues requiring a longer-term perspective to see the pay-offs of the resource allocation. If on

the other hand local governments do not give priority to situations of hidden hunger and chronic malnutrition, and avoid allocating the needed resources to deal with the problems, they will still know that if or when the situation escalates, the international community will step up, help out, and mobilize significant amounts of funding relatively rapidly. This issue ties the questions of funding with the debate about impacts of aid.

## Financial resources in Mozambique

Since the civil war and through the processes of reconstruction, Mozambique has been largely dependent on resource inflows from a number of development actors and development agencies (Renzio and Hanlon 2007). Resources are scarce in absolute terms. Mozambique has, however, managed to rather consistently fulfill many of the conditions tied to the monetary support, and retained sustained support from a multitude of actors involved. As a result of these commitments, however, development cooperation has come to play a critical role in politics, policy and implementation in Mozambique (Macamo 2006). Dependency on external inflows is also known to threaten sustainability, and constraints arise due to financial management issues of capacity. According to Fox (2008, 136) data on sector specific expenditures are unavailable for years prior to 1999. Since then, severe deficiencies have been apparent.

As pointed out earlier, – key actors and policy entrepreneurs are regarded as crucial for political commitment. Benson makes the same point regarding resource allocation decisions earmarked for the nutrition subsector in Mozambique (Benson 2008, 52). Nutrition champions are needed to ensure funding allocated to the sector in the country. This is in line with Mwadime (2012) and Bryce et al.'s (2008) understanding that political commitment can be found in terms of resource allocation to the field.

Due to the powerful connections between health and nutrition, the significance of the health sector in the nutrition field, and nutrition's place as a subdivision under the Ministry of Health, the situation of the health expenditures may provide relevant information to nutrition as well. According to WHO (2009, 5) the expenditure per capita in 2007/2008 was far below recommendations made by WHO for low-income countries. WHO also points out that Mozambique's health expenditure level has failed to reach the Abuja target committed to in the Abuja Declaration of 2001, aiming for guaranteeing a minimum 15% of the annual budget, allocated to the health sector (WHO 2011). Possolo. Novele Ngovene and Arts (2012)

provide information regarding the Nutrition Division budget, which in 2011 was approximately USD 260 000, excluded vertical funds by the UN agencies, among others. Nothing, is said by these authors about to what extent this amount meets the needs and expectations of the sector. NSG (2009), however, point out encountered difficulties in estimating how much is allocated to nutrition, both from the government and from partners. They also recognize that this complicates planning of activities. NSG, in addition, indicates that nutrition is often treated as a secondary priority due to the fact that actors given responsibility for nutrition have other areas of responsibilities as their main concern, and that mobilization of resources for nutrition seem to be affected by this (2009, 16).

## **Chapter 6: CONCLUDING REMARKS**

This study set out with the aim of developing an understanding of nutrition as a policy issue, and sought insights into the major themes of what constraints developing countries face at population level and in nation-wide policy efforts to deal with problems of malnutrition. Investigating the relevance of the identified constraints in the specific case of Mozambique also constituted a central part of the objectives of the study. The focus was on issues of implementation and the translation of policy into practice to make progress towards seeing actual improvements in people's lives.

Through a review of available literature, commonalities emerged regarding implementation challenges encountered in the literature on nutrition policy. The findings were concentrated around a variety of dynamics at work in policy implementation, presented in five thematic sections. Coordination arose as one of the most significant challenges. The constraints that coordination posed to service delivery were seemingly reinforced by the great multitude of actors engaged in a multisectoral approach, as well as by extensive donor engagement in the field. Challenges also appeared to center around issues related to lack of nutrition awareness in policy, and recognition of malnutrition as a critical factor of development, as shown by evidence. Awareness and knowledge about shortfalls in nutrition stood out as particularly crucial for attaining the political commitment needed for policies to be translated in to effective actions. Political commitment in turn, was highlighted as a key to ensuring resource allocation to nutrition. In a section considering challenges related to capacity constraints, diffuseness and the multiple use of the notion of capacity were apparent. Capacity problems were referred to as a cliché, and to deal with and approach the related issues, complex aspects

of defining the concepts must be handled. Lack of institutional foundation also added to the constraints recognized as a hampering factor in the implementation of interventions. In similarity with coordination, this lack seemed to be underpinned by the current emphasis on multisectoral approaches. Last, and maybe least surprising, financial constraint added to the challenges for developing countries to take action and to scaling up the fight against malnutrition. Donor contributions and aid inflows were found to be commonly needed. Three worrying aspects were found in that regard; -the current economic crisis may affect the opportunities that various donors have to contribute; -funding tends to be mobilized first in emergency situations; -and nutrition financing especially in eastern Africa seemed to be left almost entirely to donors.

With one exception, lack of institutional foundation, the reviewed country-specific information about Mozambique indicated that the constraints found for developing countries in general had relevance for Mozambique as well. However, although little information was found confirming the lack of institutional foundation or "poor sectoral fit" as a significant constraint in Mozambique, this does not in itself mean that this certain aspect is not a problematic one. It could just as well demonstrate the existence of a literature and knowledge gap, and indicate needs for further investigation.

The study also found that the constraints identified were strikingly and closely intertwined. The borders appeared were vague. This interrelatedness complicated a clearly defined discussion regarding the significance and relevance of the various dynamics in the implementation process. Although these challenges, in this study, were encountered on theoretical grounds only, through the literature, it would not be unreasonable to assume that they may originate in obstacles also encountered when implementation research is carried out in the field. In turn, these research obstacles may also constitute reasons for the, to some extent, limited body of literature on nutrition policy implementation area. When taking the numerous factors and dynamics at play in implementation processes into account, the relevance of multidisciplinary approaches to the issues stand out.

Last, but equally important, the review also encountered entries that highlighted the limited knowledge about the "how-to" aspect of the implementation constraints identified. Continuous and dedicated efforts must be made to overcome the barriers of such research. This would not only entail opportunities to produce knowledge and evidence in a seemingly

underdeveloped field, but in turn, from a human development perspective, also imply a potential for making significant impact in people's lives.

## **Bibliography**

- African Development Bank Group (ADBG). "Republic of Mozambique: Country Strategy Paper 2011-2015." African Development Bank, 2011. http://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/Mozambique%20-%202011-15%20CSP.pdf.
- African Union (AU). *African Regional Nutritional Stragtegy 2005-2015*. Strategy Paper. Addis Ababa: African Union, 2005. http://www.who.int/nutrition/topics/African\_Nutritional\_strategy.pdf.
- Arndt, Channing, Andres Garcia, Finn Tarp, James Thurlow, and United Nations University. World Institute for Development Economics Research. *Poverty reduction and economic structure : comparative path analysis for Mozambique and Vietnam.* Helsinki: UNU/WIDER, 2010.
- Arndt, Channing, Sam Jones, and Finn Tarp. *Aid and Development: The Mozambican Case* Discussion Paper. Department of Economics, University of Copenhagen, 2006. http://www.econ.ku.dk/Research/Publications/pink/2006/0613.pdf.
- Azzarri, Carlo, Gero Carletto, Benjamin Davis, and Antonio Nucifora. *Child Undernutrition in Mozambique* Research Report. United Nations Children's Fund and World Bank, December 16, 2012. 16-12-2012.
- Banik, Dan. Poverty and elusive development. Oslo: Univesitetsforlaget, 2010.
- Benson, Todd. "Cross-sectoral Coordination Failure: How Significant a Constraint in National Efforts to Tackle Malnutrition in Africa?" *Food and Nutrition Bulletin* 28, no. 2 Suppl (June 2007): S323–330.
- ——. *Improving Nutrition as a Development Priority : Addressing Undernutrition Within National Policy Processes in Sub-Saharan Africa*. International Food Policy Research Institute, 2008. http://www.ifpri.org/publication/improving-nutrition-development-priority.
- Bhutta, Zulfiqar A, Tahmeed Ahmed, Robert E Black, Simon Cousens, Kathryn Dewey, Elsa Giugliani, Batool A Haider, et al. "What Works? Interventions for Maternal and Child Undernutrition and Survival." *The Lancet* 371, no. 9610. Maternal and Child Undernutrition (February 2008): 417–440. doi:10.1016/S0140-6736(07)61693-6.
- Black, Robert E, Lindsay H Allen, Zulfiqar A Bhutta, Laura E Caulfield, Mercedes de Onis, Majid Ezzati, Colin Mathers, and Juan Rivera. "Maternal and Child Undernutrition: Global and Regional Exposures and Health Consequences." *The Lancet* 371, no. 9608. Maternal and Child Undernutrition (January 2008): 243–260. doi:10.1016/S0140-6736(07)61690-0.
- Bryce, Jennifer, Denise Coitinho, Ian Darnton-Hill, David Pelletier, and Per Pinstrup-Andersen. "Maternal and Child Undernutrition: Effective Action at National Level." *The Lancet* 371, no. 9611. Maternal and Child Undernutrition (February 2008): 510–526. doi:10.1016/S0140-6736(07)61694-8.
- Dade, Saide, and Christina Matusse. *Economic Governance and Development in Vietnam and Mozambique*, 2009. http://www.dneapmpd.gov.mz/index.php?option=com\_docman&task=doc\_details&gid=204& Itemid=54.
- Ecker, Olivier, and Marc Nene. "Nutrition Policies in Developing Countries: Challenges and Highlights." International Food Policy Research Institute, 2012. http://reliefweb.int/sites/reliefweb.int/files/resources/nutritionpolicies\_pn.pdf.
- Exworthy, Mark. "Policy to Tackle the Social Determinants of Health: Using Conceptual Models to Understand the Policy Process." *Health Policy and Planning* 23, no. 5 (September 1, 2008): 318–327. doi:10.1093/heapol/czn022.
- Fan, Shenggen, and Rajul Pandya-Lorch, eds. Reshaping Agriculture for Nutrition and Health.

- Washington, D.C.: International Food Policy Research Institute, 2012.
- Field, John Osgood, and F.James Levinson. "Nutrition and Development: Dynamics of Political Commitment." *Food Policy* 1, no. 1 (November 1975): 53–61. doi:10.1016/0306-9192(75)90008-1.
- Fitzpatrick, Mary. Mozambique. 3rd Revised edition. Lonely Planet Publications, 2010.
- Food and Agriculture Organization (FAO). *Nutrition Country Profile, Republic of Mozambique 2011*. Food and Agriculture Organization of the United Nations, 2011. ftp://ftp.fao.org/ag/agn/nutrition/ncp/moz.pdf.
- ———. "Rome Declaration on World Food Security and World Food Summit Plan of Action," 1996. http://www.fao.org/docrep/003/w3613e/w3613e00.htm.
- Fox, M. Louise. *Beating the Odds: Sustaining Inclusion in Mozambique's Growing Economy (Directions in Development)*. Washington, D.C.: World Bank Publications, 2008.
- Garcia, Viridana. *Children Malnutrition and Horizontal Inequalities in Sub-Saharan Africa: A Focus on Contrasting Domestic Trajectories* Working Paper. UNDP Regional Bureau Africa, March 2012. http://web.undp.org/africa/knowledge/WP-2012-019-garcia-working-afhdrmalnutrition-inequalities.pdf.
- Garrett, James, and Marcela Natalicchio, eds. *Working Multisectorally in Nutrition Principles, Practices, and Case Studies*. Washington: International Food Policy Research Institute, 2011. http://www.ifpri.org/sites/default/files/publications/oc68.pdf.
- Gilson, Lucy, and Nika Raphaely. "The Terrain of Health Policy Analysis in Low and Middle Income Countries: a Review of Published Literature 1994-2007." *Health Policy and Planning* 23 (June 2008): 294–307.
- Government of Mozambique (GoM). Cometimento e Capacidade para a Expansão de Acções para a Redução da Desnutrição Crónica em MoçambiiqueRelatório da Análise Situacional Landscape Readiness Analysis. Maputo: Government of Mozambique, 2010c. http://apps.who.int/nutrition/landscape\_analysis/MozambiqueLandscapeAnalysisCountryAsse ssmentReport\_Portuguese.pdf.
- "Estratégia e Plano de Acção de Segurança Alimentar e Nutricional 2008-2015." Republic of Mozambique, 2007. http://www.cncs.org.mz/index.php/por/Material-IEC/Todo-Material-IEC/Estrategia-e-Plano-de-Accao-de-Seguranca-Alimentar-e-Nutricional-2008-2015.
- ———. "Multisectorial Plan For Chronic Malnutrition Reduction in Mozambique 2011 2014 (2020)." Republic of Mozambique, 2010a. http://apps.who.int/nutrition/landscape\_analysis/MozambiqueNationalstrategyreductionstunting.pdf.
- ———. Poverty and Well-Being in Mozambique: Third National Poverty Assessment. Ministry of Planning and Development, 2010.
- ———. "Programa Quinquental do Governo para 2010-2014." The Republic of Mozambique, 2010b. http://www.portaldogoverno.gov.mz/docs\_gov/programa/PQG\_2010-14.pdf.
- ------. "Republic of Mozambique: Poverty Reduction Strategy Paper." International Monetary Fund, 2011. http://www.imf.org/external/pubs/ft/scr/2011/cr11132.pdf.
- Halvorsen, Knut. Å forske på samfunnet en innføring i samfunnsvitenskapelig metode. 5th ed. Cappelen Damm, 2008.
- Handa, Sudhanshu, Kenneth R. Simler, and Sarah Harrower. *Human Capital, Household Welfare and Children's Schooling in Mozambique* Research Report. Washington, D.C.: International Food Policy Research Institute, 2004. http://www.ifpri.org/sites/default/files/pubs/pubs/abstract/134/rr134.pdf.

- Harris, Jody, and Scott Drimie. "Toward an Integrated Approach for Addressing Malnutrition in Zambia. A Literature Review and Institutional Analysis." International Foor Policy Research, Poverty, Health and Nutrition Division, 2012. http://dspace.cigilibrary.org/jspui/bitstream/123456789/33177/1/ifpridp01200.pdf?1.
- Hart, Christopher. Doing Your Masters Dissertation. 1st ed. Sage Publications Ltd, 2005.
- Headey, Derek D. "Developmental Drivers of Nutritional Change: A Cross-Country Analysis." *World Development* 42 (July 2012): 76–88. doi:10.1016/j.worlddev.2012.07.002.
- Horton, Sue, Meera Shekar, Christine McDonald, Ajay Mahal, and Jana Krystene Brooks. *Scaling Up Nutrition: What Will It Cost?* Washington, D.C.: World Bank Publications, 2010.
- INE, Instituto Nacional de Estastística. *MOÇAMBIQUE Inquérito Demográfico e de Saúde 2011. Relatório Preliminar.* Preliminary Report. Maputo: Ministério da Saúde Ministry of Health, 2011. http://www.ine.gov.mz/ResourceCenter/Default.aspx.
- Levinson, James. Searching for a Home: The Institutionalization Issue in International Nutrition Background Paper, World Bank-UNICEF Nutrition Assessment. Washington, D.C. and New York: World Bank, 2002.
- Lindstrand, Ann, Staffan Bergstrom, Hans Rosling, Birgitta Rubenson, Bo Stenson, and Thorkild Tylleksär. *Global Health: An Introductory Textbook*. Lund, Sweden: Studentlitteratur AB, 2010.
- Low, Jan W., Mary Arimond, Nadia Osman, Benedito Cunguara, Filipe Zano, and David Tschirley. "A Food-Based Approach Introducing Orange-Fleshed Sweet Potatoes Increased Vitamin A Intake and Serum Retinol Concentrations in Young Children in Rural Mozambique." *The Journal of Nutrition* 137, no. 5 (May 1, 2007): 1320–1327.
- Macamo, Elísio. *Political Governance in Mozambique*. Department of International Development, the United Kingdom, 2006. http://www.open.ac.uk/technology/mozambique/pics/d70313.pdf.
- Massingarela, Cláudio, and Nhate Virgulino. "The Politics of What Works: A Case Study of Food Subsidies and the Bolsa- Escola in Mozambique." Chronic Poverty Research Centre, February 2006. http://www.chronicpoverty.org/uploads/assets/files/Massingarela%20Nhate%20-%20Mozambique%20study.pdf.
- Menon, P, EA Frongillo, David L Pelletier, RJ Stoltzfus, Ahmed AM Shamsir, and T Ahmed. "Assessment of Epidemiologic, Operational, and Sociopolitical Domains for Mainstreaming Nutrition." *Food and Nutrition Bulletin* no. 35 (2011): 105–114.
- Morris, Saul S, Bruce Cogill, and Ricardo Uauy. "Effective International Action Against Undernutrition: Why Has It Proven so Difficult and What Can Be Done to Accelerate Progress?" *The Lancet* 371, no. 9612. Maternal and Child Undernutrition (February 2008): 608–621. doi:10.1016/S0140-6736(07)61695-X.
- Mwadime, Robert K. N. "Accelerating National Policymaking Across Sectors to Enhance Nutrition." In *Reshaping Agriculture for Nutrition and Health*, edited by Shenggen Fan and Rajul Pandya-Lorch, 153–162. Washington D.C.: International Food Policy Research Institute, 2012.
- Müller, Alexander, and Denise C Coitinho. "Global Nutrition: What Should Change?" *Food and Nutrition Bulletin* 32, no. 2 Suppl (June 2011): S56–58.
- Nabarro, David, Menon Purnima, Ruel Marie, and Yosef Sivan. "SUN: A Global Movement to Accelerate Reduction of Maternal and Child Undernutrition." In *Scaling Up in Agriculture, Rural Development, and Nutrition*, edited by Johannes F. Linn. Focus 19. International Food Policy Research Institute, 2012.
- Nutrition Study Group for PARPA II Impact Assessment (NSG). *Aprofundamento para o Relatório de Avaliação do Impacto PARPA II (2006-2009) Área de Nutrição*. Government of Mozambique,

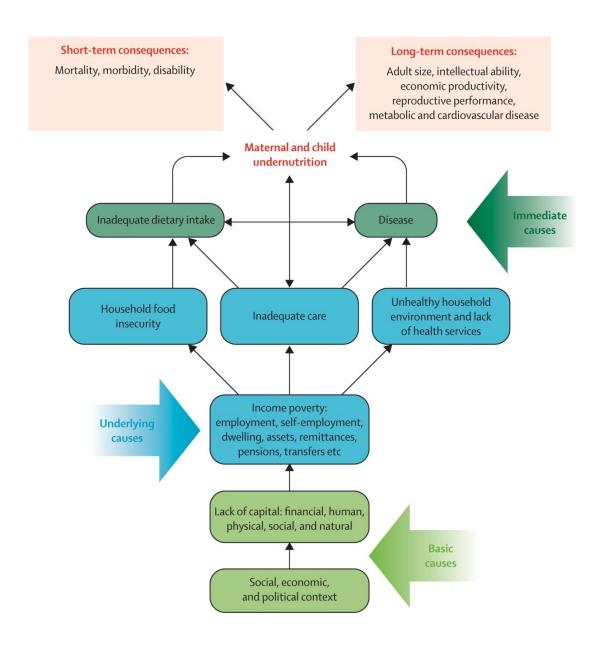
- October 2009. http://www.open.ac.uk/technology/mozambique/pics/d119370.pdf.
- Pearson, Brenda L., and Björn Ljungqvist. "REACH: An Effective Catalyst for Scaling up Priority Nutrition Interventions at the Country Level." *Food and Nutrition Bulletin* 32, no. 2 Suppl (June 2011): S115–127.
- Pelletier, David L, Edward A Frongillo, Suzanne Gervais, Lesli Hoey, Purnima Menon, Tien Ngo, Rebecca J Stoltzfus, A M Shamsir Ahmed, and Tahmeed Ahmed. "Nutrition Agenda Setting, Policy Formulation and Implementation: Lessons from the Mainstreaming Nutrition Initiative." *Health Policy and Planning* 27, no. 1 (2011a): 1–13. doi:10.1093/heapol/czr011.
- Pelletier, David L, Purnima Menon, Tien Ngo, Edward A Frongillo, and Dominic Frongillo. "The Nutrition Policy Process: The Role of Strategic Capacity in Advancing National Nutrition Agendas." *Food and Nutrition Bulletin* 32, no. 2 Suppl (2011b): S59–69.
- Pelletier, David L, Christine M. Porter, Gregory A. Aarons, Sara E. Wuehler, and Lynette M. Neufeld. "Expanding the Frontiers of Population Nutrition Research: New Questions, New Methods Ans New Approaches." *Advances in Nutrition* (Forthcoming 2013).
- Pfeiffer, James. "International NGOs and Primary Health Care in Mozambique: The Need for a New Model of Collaboration." *Social Science & Medicine* (1982) 56, no. 4 (February 2003): 725–738.
- Pinstrup-Andersen, Per, and Derrill D. Watson II. Food Policy for Developing Countries: The Role of Government in Global, National, and Local Food Systems. Cornell University Press, 2011.
- Possolo, Edna G., Yara Lívia Novele Ngovene, and Maaike Arts. "Community Management of Acute Malnutrition in Mozambique." *Field Exchange* no. 43 (July 2012): 45–50.
- Potter, Christopher, and Richard Brough. "Systemic Capacity Building: a Hierarchy of Needs." *Health Policy and Planning* 19, no. 5 (September 1, 2004): 336–345. doi:10.1093/heapol/czh038.
- Renzio, and Hanlon. "Contested Sovereignty in Mozambique: The Dilemmas of Aid Dependence.," 2007.
- Scaling Up Nutrition Secretariat (SUN). *Scaling Up Nutrition. SUN Movement Progress Report 2011-2012* Progress Report, 2012.
- Shenute Namugumya, Brenda. "Advocacy to Reduce Malnutrition in Uganda: Som Lessons for Sub-Saharan Africa." In *Reshaping Agriculture for Nutrition and Health*, edited by Shenggen Fan and Rajul Pandya-Lorch. Washington, D.C.: International Food Policy Research Institute, 2012.
- Sherr, Kenneth, Antonio Mussa, Baltazar Chilundo, Sarah Gimbel, James Pfeiffer, Amy Hagopian, and Stephen Gloyd. "Brain Drain and Health Workforce Distortions in Mozambique." *PLoS ONE* 7, no. 4 (April 27, 2012): e35840. doi:10.1371/journal.pone.0035840.
- Staal Jenset, Inga. "Democratization as Development Aid in Mozambique -which Role Does Education for Citizenship Play?" Master Thesis, Education, University of Oslo, 2005. https://www.duo.uio.no/bitstream/handle/123456789/30716/27420.pdf?sequence=1.
- Standing Committee on Nutrition (SCN). "Planning and Financing Nutrition Programmes in ECOWAS Supplement on the 12th ECOWAS Nutrition Forum." *SCN News* no. 39 (2011): (supplement) 20–21.
- Stevens, Gretchen A., Mariel M. Finucane, Christopher J. Paciorek, Seth R. Flaxman, Richard A. White, Abigail J. Donner, and Majid Ezzati. "Trends in mild, moderate, and severe stunting and underweight, and progress towards MDG 1 in 141 developing countries: a systematic analysis of population representative data." *Lancet* no. 380 (n.d.): 824–834. Accessed December 9, 2012.
- Swart, Rita, David Sanders, and Milla McLachlan. "Nutrition: A Primary Health Care Perspective." In *South African Health Review*, 129–147. Durban: Health Systems Trust, 2008.

- http://www.hst.org.za/uploads/files/chap9\_08.pdf.
- Tarp, Finn, Channing Arndt, Henning Tarp Jensen, Sherman Robinson, and Rasmus Heltberg. *Facing the Development Challenge in Mozambique an economywide perspective* Research Report. Washington, D.C.: International Food Policy Research Institute, 2002.
- United Nations. *United Nations Millennium Declaration*, 2000. http://www.un.org/millennium/declaration/ares552e.htm.
- United Nations Children's Fund (UNICEF). Strategy for improved nutrition of children and women in developing countries. A UNICEF Policy Review. New York, 1990.
- United Nations Children's Fund (UNICEF). *Child Poverty and Disparities in Mozambique 2010*. Maputo: UNICEF, 2011. http://www.open.ac.uk/technology/mozambique/pics/d130873.pdf.
- United Nations Development Program (UNDP). *Human Development Report 2011 Sustainability and Equity: A Better Future for All.* New York: United Nations Development Program, November 2, 2011. ISBN 9780230363311.
- World Bank. *Repositioning Nutrition as Central to Development: A Strategy for Large-Scale Action*. World Bank, 2006. http://siteresources.worldbank.org/NUTRITION/Resources/281846-1131636806329/NutritionStrategy.pdf.
- World Bank/United Nations Children's Fund. "Background Papers World Bank/UNICEF Nutrition Assessment." Washington, D.C.: Health, Nutrition and Population Unit The World Bank, 2002.
- World Health Organization (WHO). "Country Cooperation Strategy: Mozambique 2009-2013." World Health Organization, 2009. http://www.who.int/countryfocus/cooperation strategy/ccs moz en.pdf.
- -----. "The Abuja Declaration: Ten Years On," 2011. http://www.who.int/healthsystems/publications/abuja report aug 2011.pdf.

### Webpages:

- Direcção Nacional de Estudos e Análise de Políticas (DNEAP) http://www.dneapmpd.gov.mz/, Accessed on November 30, 2012.
- Instituto de Estudos Sociais e Económicos (IESE) http://www.iese.ac.mz, Accessed on November 29, 2012.
- Scaling Up Nutrition Movement (SUN) www.scalingupnutrition.org, Accessed on November 11, 2012a.
- The REACH Partnership www.reachpartnership.org, Accessed on December 18, 2012.

# Appendix I:



**Figure 1:**The UNICEF Framework of Malnutrition, as presented in Black et al. 2008.