EFFECTIVE PARTICIPATION FOR HEALTH DEVELOPMENT: WHY, WHO and HOW?

PANTICIPATE EFFECTIVELY: WHO, HOW,
AND WHY? A STUDY OF PEOPLED
PANTICIPATION FOR HEALTH DEVELOPMENT.

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ABSTRACT

Peoples' participation and empowerment are widely considered as key elements if not pre-requisites for successful and sustainable health development outcomes. To date there is no conclusive and widely accepted definition of participation and no standard tools for its assessment.

What does people's participation in health development mean to the stakeholders from the community to the national and international level? Can it be assessed? What is the effectiveness in terms of health development? and what are the factors that can influence the outcomes of a participatory process?

An answer to these questions is sought in the case study from the Community Based Nutrition Programme in Kenya. Using a mixed methods design and innovative tools developed and tested in a pilot community, this field study tries to answer these questions.

There is no conclusive and congruent definition of participation to be drawn either from the literature or from the field research.

The health impact and process can be measured in qualitative and quantitative terms. However, firm inferences on the effect of health outcomes could not be drawn due to a "non-fit" in the two tested communities.

Social cohesion leading to community *homogeneity*, and the role of *gatekeepers* in both, horizontal and vertical structures, are the factors that appear to mostly influencing health development outcomes.

Health managers when planning interventions in any given community need to acquire in depth knowledge of all participating stakeholders, including diversities within and between them, and adopt democratic processes at all stages. The analytical framework used in this study could stimulate further development of effective tools and methods for assessing participation, thereby contributing to the current policy dialogue on health development and poverty reduction.

The results will therefore be disseminated to relevant stakeholders at national and international levels, as well as to the academic and donor community.

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DECLARATION:

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LIST OF ACRONYMS

AIDS Acquired Immunodeficiency Syndrome

AKF Aga Khan Foundation BMI Body Mass Index

CBNP Community Based Nutrition Programme

CHW Community Health Worker

CIH Community Involvement in Health ECHC European Centre for Health Policy

FGD Focus Group Discussion GoK Government of Kenya HAZ Height for Age Z-score

HH Household

HIV Human Immunodeficiency Virus

HQ Headquarters

I Intervention sublocation (Mazumalume)

MoH Ministry of Health

MOEST Ministry of Education, Science and Technology

NGO Non Governmental Organisation

NI Non-intervention sublocation (Simkumbe)
PANS Participatory Approach to Nutrition Security

PAR Participatory Action Research
PET Participatory Educational Theatre
PLA Participatory Learning and Action
PPA Participatory Poverty Assessment
PRA Participatory Rural Appraisal

RA Rapid Appraisal

RPA Rapid Participatory Appraisal

RRA Rapid Rural Appraisal

SCF-UK Save the Children Fund, UK

SD Standard Deviation

SLDC Sublocational Development Committee SPSS Statistical Programme for Social Science

TBA Traditional Birth Attendant
VDC Village Development Committee

WAZ Weight for Age Z-score WHZ Weight for Height Z-score

UNDP United Nation Development Programme

UNICEF United Nation International Children Emergency Fund

WB World Bank

WHO World Health Organisation

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DEDICATION:
Personal power is
standing with my fears and not hiding behind themⁱ



 ${\it By Tanja} \\$ This thesis is dedicated to my daughter, Tanja, who is entering into the development arena and hopefully will learn from the past to improve the present and the future

ⁱ Brown, K. B. (2003), Guidelines to Success. (2nd ed.). London: Lifetimes Pressin.

PART I: INTRODUCTION

The study presented in this thesis contributes to the knowledge base of participation within the health development sector by exploring people's participation and empowerment, with special reference to issues of assessment and impact. It includes a field study from the health sector in Kenya conducted in two stages with the aim of developing tools for assessing participation and the influence of participatory approaches on the health and nutritional status of children below five years of age. The study also identifies factors that are important for health and nutritional changes. It is expected that the study will contribute to simplifying and demystifying the term "participation" and develop an analytical framework for assessing participation.

Part I contains one chapter which introduces the study. It gives the problem statement and rational for the thesis and briefly considers the context in which participation takes place in the health sector. It then provides some background and context in the form of a personal reflection from the researcher on her own journey through this work. It presents the research questions, approach used and limitations of the study and finally outlines the scope and sequence of the thesis.

I wish to acknowledge an interest in the participatory health development process used as a case study in this thesis. I was the Senior Adviser to the Ministry of Culture and Social Services in Kenya for eight years from 1990 to 1998, during which time a participatory process called Participatory Approaches to Nutrition Security (PANS) was developed and tested. This process is still being used. I intend to draw on this experience and present a critical review of the practice of the PANS process as well as a review of the ideas and theories that have formed the basis for the practice. Although I declare an interest in this process it is my intention to follow Mwaura's argument and "make a contribution from an insider while reflecting as an outsider" (Mwaura, 2001 p.47).

CHAPTER 1: RATIONALE AND FRAMEWORK

1.1 Problem statement and rationale

1.1.1 The need to define participation and be able to measure it

Community participation was one of the three pillars of Primary Health Care forming part of the World Health Organisation's (WHO) Alma Ata Declaration from 1978 (WHO, 1978). This Declaration considers community participation to be an important precondition for better health development¹. Over the years, a considerable number and variety of claims have been made by proponents of participatory approaches in health development regarding the direct and indirect benefits of participation. Participation has become "the answer" to complex development problems (Bastian and Bastian, 1996) and has been justified in terms of ownership (Driscoll and Christiansen, 2004; Oxfam, 2004) sustainability, relevance and empowerment, including those in the health sector (Cooke and Kothari, 2001). Moreover, participation has been grounded in claims of increased project effectiveness and efficiency (Lele, 1975) and taken up in the search for alternative approaches to development. However, there is little documented experience of the use, outcome and impact of participatory approaches, including empowerment and especially so within the health sector (Parry and Wright, 2003). One may ask why this is so. To answer this question two factors stand out. The first is the lack of a clear and uniform definition of participation and health and the second is the scarcity of measurement methods and tools.

There is no single agreed definition of participation within the health sector because studies on the use of participatory approaches tend to approach participation in many different ways and use many different terms. Some authors analyse participation from a theoretical standpoint, whilst others are interested in its practical applicability. A third group traces its historical origin and political power base (Cornwall and Gaventa, 2000b). However, currently there are two major interpretations of participation. These are participation as a *means* and participation as an *end*. These distinctions are neither clear-cut nor mutually exclusive but they *do* represent two

¹ Health development is here defined as a person's progressive achievement towards better health based on the WHO's definition of health (WHO 1978).

very different purposes and approaches to promoting participation. These ways of approaching participation have been used to examine participation in different sectors such as agriculture, environment and, most recently, in the health sector. Cornwall (2001b) states that few, if any, studies have specifically examined whether, given a particular definition of participation, its use has had any benefits.

For the purpose of this thesis the following working definition will be used: "Participation is a process through which all stakeholders have equal rights to influence and share control over development cycles and the decisions and resources which affect these cycles". This definition builds on and adds rights issues to the definition used by the World Bank (WB) (WB, 1996).

As much as it has been difficult to assert a uniform and concise definition of participation, it has also been difficult to ensure consensus of what "health" and "better health" is, especially in planning for projects and programmes that have a health improvement focus. The WHO (1978) defines health as "a state of complete physical, mental and social well-being and not merely the absence of diseases" and this definition will be used in this thesis. The WHO 1978 definition of health was, however, late to take root in the real world and only when the WB published "Better Health in Africa" in 1993 and the United Nations later stated the Millennium Development Goals did health development really become a priority in its own right as well as a central input for economic development and poverty reduction (WB, 1995; WB, 2002a).

Di Villerosa (1998) points out, that even given clear definitions of participation and health, these terms are understood according to the political, cultural, socio-economic and educational background of the interpreter. This is important for understanding the decisions made about who measures what, when and where. To reach a congruent definition of health the dialogue therefore needs to include subjective definitions as well as processes of uncertainty in turbulent social systems. These social systems are not subjected to linear causal relations but are made up of creative, rather than merely reactive, actors (Chalwa, 2001). Bastion and Bastion (1996) have argued that this makes participation in health development more complex than most participatory development projects are designed to cope with. It is therefore necessary to

recognise context (including timing) at all stages of the project cycle and go beyond the limitations of the participatory discourse when researching participation.

Although participation has long been used in rural development projects, participation in the health sector is still in its early stages because experienced practitioners have been mostly engaged in training and appraisal as evidenced by the vast amount of grey literature in this area (Srinivasan, 1993; Lelo and al, 1999; Selener, Endara and Carvajal, 1999), rather than monitoring and evaluation. Consequently, little attention has yet been given to measurement methods and tools. Further reasons for the lack of attention given to assessment are (i) due to conflict between bottom-up and top-down approaches to planning and implementation where power relationships have not always been conducive to assessment of participation, (ii) participation is time consuming especially where communities are not homogeneous, and (iii) academic researchers have been slow to recognise what has happened in the field and have rarely studied participation and its effectiveness. Consequently, there is a clear consensus that well designed studies are needed to provide evidence of the effectiveness of participatory approaches in the health sector and how to institutionalise them into day-to-day practice (Thompson, 1995; ECHP, 1999).

In the health sector there is a long tradition of quantitative evaluative research which assesses participation in terms of the number of people attending health facilities/meetings and/or the number of activities undertaken (Rifkin, 1988). These measures have shortcomings as they do not explain who, why and how people participate in activities or what they gain; neither does it explain who is excluded and why. Quantitative enquiry is about how much, while qualitative enquiry is about what exists and why. Therefore, combining a qualitative with a quantitative framework (flexibility with specificity), as suggested by Rifkin (1988) and Di Villerosa (1998), would not only assess impact but also explain how any change has come about and why (Bamberger, 2000).

1.1.2 The need to understand the context

While definitions offer some insights into the ways in which participation is framed by international development agencies and grassroots organisations, it is important not to confuse statements of intent with the realities of development practice. Bastian and Bastian (1996) point out that there is a huge gap between the rhetoric of participation and what actually works and happens in the field. Starkloff (1996) argues that a minimum set of practical conditionalities or criteria must be present for an approach to be called participatory.

If this is taken as the point of departure, understanding the context and sectors in which participatory methodologies are used becomes even more important because participation can be used and misused according to the needs and wants of the knowledge holders and power relationships can easily be ignored. Firstly, because in writing about participation as a "bottom-up" approach starting with and in rural communities, terms such as "village", "rural", "the poor" and "local people" are commonly used and the world easily depicted in terms of "them" and "us". This depiction links into colonial and post-colonial discourses of power and domination (Guijt and Kaul Shah, 1998) where villages are depicted as never-changing communities where people live harmoniously and co-operate happily with each other. Secondly, because participatory and populist approaches overlook the socially determined nature of local knowledge they fail to take account of ideologically rooted polarities (e.g. state/people, insiders/outsiders, us/them, micro/macro, local/global), which divert the attention of planners away from the politics of development. This can mask the substantial political role of outsiders in local development events which so often happen during participatory planning when methods are used dogmatically (Scherler et al., 1998). The very nature of participatory approaches makes it possible for dominant interests to have a strong influence on the information gathered, analysed and presented.

In conclusion, although participatory development has the potential to develop new alliances and strike new bargains between insiders (often referred to as the community or end beneficiaries) and outsiders (often the representatives of the state or a non-governmental organisation (NGO), this often depends as much on the methods and tools used in operationalising the participatory discourse as well as the participants themselves. Part of the new bargains struck is the collaborative production of new types of knowledge and some re-direction of the flow of local resources, including power and control. If not carefully monitored new power

structures can create increased room for manoeuvre and create advocacy roles for the powerful instead of increasing new space for negotiation.

1.2 Participation and the health sector

The notion of participation was first introduced in the health sector by Oakley (1989). He argued that there were three broad interpretations of participation, as a contribution, as a type of organisation or as a means of empowering, which reflected an increasing scale of power transfer to the beneficiaries. Oakley recognised the relationship between participation and empowerment as well as the importance of institutional culture and anchorage. As mentioned above participation arrived late in the health sector and has been hampered by the lack of a clear and uniform understanding of health. The development over time has transformed a needs-based health approach to a demand driven health development approach (WB, 1995; Sen, 2001), popularised in the 1990s, to a process of negotiation and development of new relationships between citizens and service providers (WB, 2004c). However, questions exist as to whether this relationship of negotiation is more effective in improving the health status of people. Studies to answer these questions are difficult and costly to design and implement due to a lack of tools for assessing participation and empowerment and the fact that working in "the real world" does not provide ideal settings for statistical inference needed for impact assessment. Health professionals are primarily interested in knowing the results of their interventions but recently there has been a demand for understanding why some interventions have brought only little, if any, change in the health (including nutrition) of a given population (SCF-UK, 2003).

1.3 Where do I come from as a researcher?

Before defining the research questions and reviewing the literature I need to state my own stance towards research and knowledge creation. The intrinsic problem I have experienced of first being a researcher trained in a scientific medical institution and then having been a practitioner in different health development programmes for many years has changed me. This change has been supported by my decision to move into an educational research mode, which has a bias towards qualitative and

participatory "real life research". It has only been my own curiosity, exposure to "real life" through my work as a medical doctor in a social setting in Kenya combined with critical reflective action on "how to improve" that has kept me moving forward in times of retrogression and emotional crisis grounded in a domain of "not belonging" anymore, anywhere. This life journey has changed my values, my view and my world. I will call this my life journey. But there is another journey in my life, which I will refer to as my "PhD journey". I started this journey with a research framework totally embedded in positivistic thinking but was constantly reminded of the "non-fit" between the methods recommended in the literature and what I considered to be important and feasible in answering the research questions for this thesis. I started to wonder what reality, knowledge creation and "real life" was for me. I have chosen the stand of Howe (1988) who has posited a paradigm called "pragmatism". A major tenet of Howe's concept of pragmatism is that quantitative and qualitative methods are compatible and that it is acceptable to study what is of interest to you in the way deemed necessary and appropriate and to utilise the results in ways that can bring about positive consequences within your own value system (Teddlie and Tashakkori, 2003). It is important to stress that my research has not only been about pursuing a career and adding knowledge to the world. It has also been about finding out about me and my personal feelings and values. As pointed out by Hale (1991) and Gibbon (1999), it is becoming the norm to incorporate personal feelings about research in the research writing.

1.3.1 Field study site

Kenya, and Kwale District in particular, has been chosen as the field study site partly because of my own 15 years of work experience in the health and social sector in this country and partly because Kenya was one of the first countries in the world where participatory approaches were introduced and expanded to other countries. Participatory approaches emerged in Kenya as a response to the lack of effects of the District Focus for Rural Development initiatives (GoK, 1984). This policy stressed participation in planning by the rural population and local administration. However, formal institutions contributed to the alienation of rural communities (Gulleth, 1991) and only in the 1990s, through concerted efforts and networking among proponents of participatory approaches, did such approaches start to be an integrated part of

programme planning both inside and outside the Kenyan government administrative system (Nyamu-Musembi and Musyoki, 2004b).

In summary, the rationale for this study has argued that there is insufficient documentation regarding the effectiveness of participatory approaches and their use in the health sector, and that this is compounded both by the lack of any clear and universally agreed definition of participation and health or availability of methods and tools for its assessment. Moreover, there is a gap between the rhetoric and the practical application of participatory methods which is getting bigger as participatory approaches are being scaled-up (Corneille and Shiffman, 2003). Beneficiaries, politicians and academics now want to know what contributes to the success and/or failure of this scaling-up. This thesis will therefore contribute to the research literature at a time when innovative approaches are not only in demand but also when their effectiveness is being questioned, and there is a scarcity of good assessment methods and tools.

1.4 Research questions, approach used and limitations

The overall purpose of this research is to develop a comprehensive framework for assessing participation and examine its effectiveness in the health development sector. The research questions are as follows:

- 1. What does people's participation in health development mean to different stakeholders from the community to the national and international levels?
- 2. How can people's participation in a health development programme be assessed?
- 3. What is the effectiveness of a participatory process in terms of health development²?
- 4. What factors influence the outcomes of a participatory process to health development?

² For assessing effectiveness an assessment of the outcome of the participatory process is given.

These research questions are addressed through a critical analysis of the literature, reflection on personal experiences and a field study conducted in Kenya. The methodology for the field study in Kenya uses a mixed methods approach to data collection and analysis, combining quantitative and qualitative data. The methodology is presented in detail in Part III.

A limitation of this study is that it is difficult to determine a causal link between the use of a participatory process and any change in nutrition status. This limitation arises from the lack of comparability between baseline data in the intervention and control communities, the economic and time constraints of this study, the long time-lapse between the baseline (1995) and intervention data (2003) and the fact that other donors might have intervened and biased causal linkages. Another limitation is that although this study will assess aspects of a participatory process, a wider generalisation of findings must be undertaken with caution as this assessment takes place at a certain point in time, in a limited geographical area and with data collected from a relative small population size. Lastly, the specific socio-economic and cultural characteristics of the target population will constrain transferability.

Official permission (permit number MOEST 13/001/30C 70) to conduct both the pilot and the follow-up study was obtained from the Permanent Secretary, Ministry of Education, Science and Technology on the 30th of March 2001. Furthermore, the process of entering and exiting the field was carefully planned to ensure that all relevant stakeholders were informed of events and results and had opportunities to comment. Lastly, before any questionnaire was applied confidentiality was promised to, and oral consent was obtained from, each household³ (HH) chosen for the survey (see consent form in English in appendix 1 and in Kiswahili in appendix 2).

1.5 Scope and sequence

.The thesis is organised into five parts. Part I introduces the study, it presents the problem statement, rationale and the research questions. Part II provides the theoretical framework for the thesis. Part III reports on the methods used in the

³ A household is defined as individuals belonging to the same household and who have shared meals together for the last 3 months (Ainsworth, M. and Semali, I. 2001).

Kenyan field study and includes both the pilot and the follow-up study. Part IV provides the findings and Part V synthesises the findings of the thesis and draws out wider implications of this work.

Part I – Introduction

This chapter argues that even though participation was introduced late in the health development sector, the lack of any widely agreed definition of participation or health has contributed to the practical application of participatory approaches been ruled by disparities of power and domination and also complicated the assessment process. Part I ends by arguing that when the impact of a programme is being documented the assessment of participation must be included. Lastly, it presents the four research questions and the outline of this thesis (figure 1.1).

Part II – Theoretical Context

This part has three chapters (Chapters 2, 3 and 4) which provide the theoretical framework for the thesis. It directly addresses the first research question (What does people's participation in health development mean to different stakeholders from the community to the national and international levels?) but also identifies the gaps in the literature that inform the other three research questions. Chapter 2 describes the historical development of participation and empowerment and argues that power and power relationships are important factors in the definition of these two concepts. A model for examining participation has been put forward using six "helpers" - what, where, when, how, who and why? These helpers are important for understanding the context and timing of participation, which defines preconditions. Different frameworks for assessing participation are discussed and the chapter finally proposes one that will be used for assessing participation and empowerment in this field study. Chapter 3 defines health, nutrition and malnutrition and uses UNICEF's conceptual framework to explain the causal factors of malnutrition. It describes the use of anthropometry in assessing nutritional status and gives the standard used. Lastly, the chapter outlines how effectiveness of participation in the health sector can be defined. Chapter 4 presents the context of the field study. It describes the health and social sectors in Kenya and the Community Based Nutrition Programme (CBNP) that is involved in the field study. Finally, it examines the participatory educational process used by this programme known as the Participatory Approach to Nutrition Security (PANS) and documents its successful use in the CBNP pilot area.

Part III - Methodology

Part III is divided into three chapters. After a brief outline of the field study context, chapter five addresses the second research question (<u>How can people's participation in a health development programme be assessed</u>?) and refers to the tools and methods used and their paradigmatic foundation. It provides the rationale for choosing a mixed methods approach and presents an organisation for data collection, and thereafter link the research questions to tools and methods. Chapter six uses the framework developed in chapter two for assessing participation and empowerment in the pilot study. This framework is further developed into tools and methods for piloting in one sublocation of Kwale, Kenya, different from the follow-up study area. The findings are compared and contrasted with the literature review. It concludes that, with some revision, the developed tools and framework can be a useful and cost effective way of assessing participation and empowerment. Following on is chapter seven which describes the main study, the sampling and assessment of quantitative and qualitative data as well as its limitations and concerns.

Part IV – Study findings

Chapters 8 reports on the results of the quantitative cross-sectional nutritional survey and the perceived impact of participation using the tools described in chapter 6. The chapter also explore and explain the results of the quantitative survey. Using the developed tools and methods developed in part III, an assessment of participation and empowerment is done. The final result draws on the findings from the pilot study, which illuminated the depth and scope of participation and empowerment over time, between different social groups and between different administrative tiers. The study finally tries to compare participation, empowerment and nutritional status in order to answer the third research question (What is the effectiveness of a participatory process in terms of health development?). Chapter 9 explores the meaning of participation as perceived by stakeholders form community to central level. The chapter also describes facilitating and hindering factors for and outcomes of participation. These qualitative data are collected from focus group discussions with different stakeholders at different levels of the Kenyan administrative system

and answer the last research question (<u>What factors influence the outcomes of the participatory process to health development?</u>).

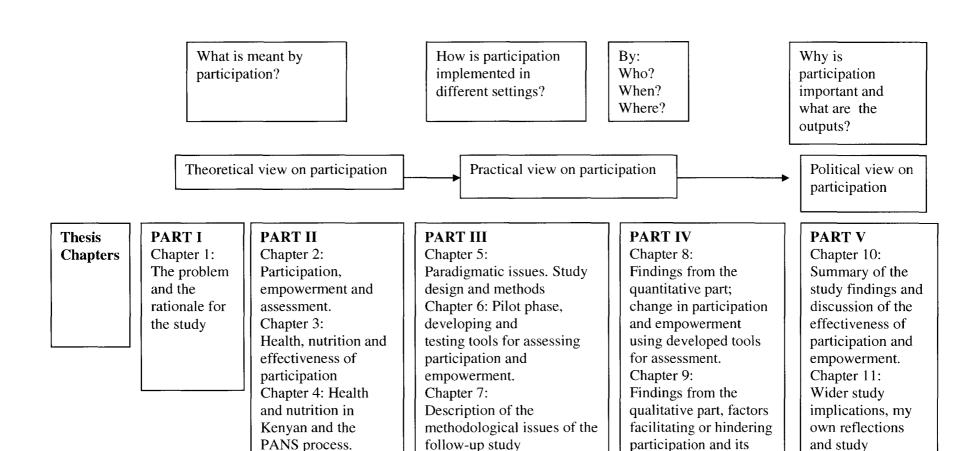
Part V – Study implications

Chapter 10 summarises the main findings according the four research questions and draws out the wider implications and conclusions of the work. Research question one is answered using the literature review and the developed conceptual framework in part II. The chapter suggests a re-defined framework for participation and empowerment embedded in the political, economic, social, cultural and legal context. The chapter answers research question two by stating that the tools and methods developed in the pilot study for assessing participation and empowerment were used - with some modification - in the follow-up study, and are now ready for wider application. Research question three relating to the effectiveness of participation is discussed. Due to lack of comparability between the two study areas no inference could be drawn. The only change measured was a deterioration of severe stunting over time in the intervention area which was inconclusive. The chapter answers the last research question by discussing facilitating or hindering factors that could explain any perceived change in nutritional outcomes. Chapter 11 makes recommendations on how the findings can be used at operation, system and political level and suggest a model for assessing factors important for effective participation in health development interventions. Lastly, the chapter provides my own reflections before, during and after this study with regard to the research process, findings, methodology and dissemination of the results.

1.6 Thesis outline

Figure 1.1 outlines the thesis outline.

Figure 1.1: Thesis outline



effectiveness.

dissemination.

PART II: THEORETICAL CONTEXT

Introduction

The purpose of this section is to critically review the literature relevant for this thesis with the aim of delineating the terms participation, empowerment, health and nutrition as well as to explore their interrelationships and assessment. This literature review presents the results of other studies that are closely related to the ongoing relevant dialogue on participation and empowerment and their assessment in the health development sector. The section also shows how the present field study fills the identified gaps between rhetoric and practice and extends the findings from previous studies. This literature review is important for understanding the methodology chosen for the field study (both the pilot and the main study), which are further discussed in Part III. It links the academic writing with my own real world experience and contributes to answering all four research questions.

Part II is divided into three separate chapter. Both chapter 2, 3 and 4 relate to research question one, "What does people's participation in health development mean to different stakeholders from the community to the national and international levels"? Chapter two describes the relevant historical development of participation as well as participation in relation to the "six helpers" – what, how, why, when, where and who. The chapter then stresses the dichotomy of participation with its strength and weaknesses and also describes empowerment and relates this to participation. The chapter ends by proposing an analytical framework for assessing participation and empowerment. Chapter 3 gives the definitions of health, nutrition and malnutrition and uses UNICEF's conceptual framework to explain the factors important for understanding and assessing nutrition. The chapter further explains how the understanding of nutrition and its causes have changed over time from a needs to a rights based approach. Lastly, the chapter defines effectiveness and efficiency and relates these terms with the assessment of participation. Lastly, chapter four prepared the context for the methodology and field study by reviewing the literature on health and participation in Kenya. The Community Based Nutrition programme (CBNP), and its participatory approach called the Participatory Approach to Nutrition Security (PANS) are introduced and will be used to examine how participation and empowerment have been operationalised in the health sector.

CHAPTER 2: PARTICIPATION, EMPOWERMENT AND THEIR ASSESSMENT

This chapter firstly, describes the historical development of participation, its 'six helpers', its strengths and weaknesses and considers how participation relates to a change process in health development. This leads on to an exploration of participation and its relationship to empowerment within an ongoing process of social change and development. Next, the assessment of participation and empowerment is discussed and analysed using the available literature and a framework for assessment is proposed.

2.1 The meaning of participation and empowerment

2.1.1 Participation – its past, present and future

It is important to review the literature on participation to understand the context in which it has emerged over time. While writing on participation begins in the 1970s the real operationalisation of participation does not emerge until the 1980s with the first critical thoughts and divergent views on participation. Also emerged at this time were the writing of Chambers (1974) and Cohen and Uphoff (1980) who were the first authors to raise concerns about participation and its use as a "blueprint". They argued that participation could reinforce inequity depending on who participates, how they participate and why. Later, in the 1990s the literature reflects the influence of economic liberation on participation leading to a rights-based approach being associated with participation by the new millennium. From the time of its introduction participation has moved through mainstreaming into a policy dialogue (Cornwall and Pratt, 2003).

Participation before and during the 1970s: With the "basic needs" approach to development emerging in the 1960s, Cornwall and Gaventa (2001a) point out that the shift from financial capital formation to human resource development allowed "popular participation" to gain support. During the 1960s and 1970s there were practical applications of community participation. At that time ownership in the development discourse begin to attract attention (Newell, 1975) and the main donor agencies shifted from a top-down technocratic approach towards greater popular

involvement. This shift explains the way in which participation emerged from three distinct changes in approach. The first, a change towards increased *efficiency and effectiveness*, was supported by Lele (1975) and subsequently the World Bank who stated that project successes increase if and when people are involved. The second, a change towards *self-determination*, was supported during the 1960s and 1970s by the popular movements for recognition of rights, and more equitable distribution of resources. Authors such as Freire (1993), Pearse and Stiefel (1979), Rahnema (1992) and Rahman and Anisur (1995) also support this view arguing that social change is needed for achieving self-determination and self-governance. The third, a change towards *mutual learning*, stressed negotiation, communication, respect, listening and learning between and among people. Former social leaders from Tanzania, Ethiopia and the Philippines supported this view (Oakley and al, 1991 p.21; Oakley, 2001). In summary, these three approaches can, in chronological order, be labelled, "participation for people," "participation by people" and "participation with people".

Participation during the 1980s: This decade was an era of dichotomy for participation. As "community participation" began to be mainstreamed into development programmes (participation as means), an alternative approach named "people's self-development" (participation as an end in itself) emerged (Rahman and Anisur, 1995). Stimulated by the earlier writing of Paulo Freire, this view was supported by authors of "Participatory Action Research" (PAR), "Development Leadership Teams in Action" (Hope, 1984) and "Theatre for Development", such as the Participatory Educational Theatre (PET) (Ogolla, 1997). Cornwall (2000a p.25) summarises this well when she states "do it by yourself" became "do it for yourself". While the "participation" wave amongst development agencies and their southern counterparts grew, so did the critique. Equity became a distinct thorn in the side of big development agencies such as the World Bank.

Cornwall describes the "business as usual approach" taken by many donors in giving statements of intent to do effective and efficient development without making any major changes in high-level management structures (Cornwall, 2000a p.38 and 40). With the concern for equity came the concern for power and control. However, it was not until the late 1980s with the emerging feminist movements that the empowerment domain really began to take root. This made Guijt and Kaul Shah

(1998) question the description of the community as a homogeneous social group. However, as the emphasis on community participation grew, so did the relationship between donors and NGOs, in the midst of the failing impact of donor supported government development projects. It was argued that smaller scale organisations and interventions with relative autonomy from the state were better placed to operationalise community participation (Hulme, 1997) and thereby ensure that vulnerable groups, usually outside the reach of the government systems, were reached.

Participation in the 1990s: During the 1990s there was a significant shift in the development discourse. With the emergence of civil society, economic liberalisation and democratic governance as important elements in the development discourse, participation became a vehicle for democratisation and decentralisation as part of wider sector reform processes. The debates around participation during the 1990s were more concerned with how it should be done, how to do it well and with scalingup participation. According to Thompson (1995) and Blackburn and Holland (1998), governance issues became connected with scaling-up, mainstreaming and institutionalising participation, and "political participation" emerged from the donor driven good governance agenda. Growing pressure for institutional reform to make government service delivery more responsive to the needs coming out of local communities was met with attempts to enable these communities to have a political voice thorough which to exercise control in governance (Gaventa and Valderrama, 1999). This type of participation has been viewed as a way to ensure greater effectiveness and efficiency and also as a means to enhance accountability. Many international donors and development agencies now had practical experience with the use of participatory approaches from their development work. Equity, power and control issues were raised again as well as concerns relating to how a very heterogeneous community could be managed or manage themselves.

Participation in the new millennium: Bringing the governance and human rights issues into the domain of participation and development opened up new aspects for promoting participation as a basic human right, and participation became a prerequisite and a starting point for other claims (Hauserman, 1998). However, this

shift of focus opened a Pandora's Box of questions, such as whether power sustains inequity, whether exclusion becomes a denial of rights in itself and whether the basis for active citizenship is to make demands backed by legal instruments. Furthermore, with this shift towards rights issues comes a questioning of the limitations of consensus-based approaches to participation. Questions also arise around the definition of rights, negotiations over competing rights and access to mechanisms for enforcing these rights when they are violated. All in all, the challenge for participation is now to move beyond "projects" and "programmes" and focus on something wider than consensus building, rights issues and exclusion. Participation must be a process that can create new relationships between citizens, the state, the market and the service providers. This view of participation has now resulted in the birth of the social accountability⁴ agenda where citizens have the right to hold power holders such as the state responsible for their actions (Malena, Forster and Sing, 2004). Interestingly, but maybe not surprisingly, a number of the concerns already raised about participation in the 1970s by Cohen and Uphoff (1980) are resurfacing (Cornwall and Gaventa, 2001a). Maybe there is a need to ask how and why this shift towards seeing participation as a rights-based approach has happened, or whether history is just repeating itself in another context?

2.1.2 Analysing participation using the "six helpers"

This section starts to address research question 1 by reviewing literature to explore the different perceptions of what participation means. To do this I will use the "six helpers" (*what*, *where*, *when*, *how*, *who* and *why*) "(see figure 2.1).

What is participation? Participation has been defined in many and varied ways by different authors and implementers of development programmes. A number of useful typologies have been developed to help recognise the way in which participation is a process rather than a product. Sherry Arnstein (1969) presented an early example. Her ladder of participation was considered to be a deliberately provocative typology of citizen involvement (see appendix 3). This ladder has since been taken up and adapted widely by others as the dialogue on participation has moved to include rights

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⁴ Social Accountability can be defined as an approach towards building accountability that relies on civic engagement, i.e. in which it is ordinary citizens and/or civil society organizations who participate directly or indirectly in exacting accountability Malena, C., Forster, R. and Sing, J. (2004).

and empowerment (Narayan, 2002; Narayan, 2005) Cornwall (1996); Hart (1992); Hart and Bond (1995). In adapting Arnstein's ladder of participation subsequent writers refer to different levels of participation that can be achieved by varying interventions in different contexts. While the ladders developed by Arnstein and Hart address different depths of participation, few authors have addressed the scope of participation or the willingness to participate. It is important to include the scope of participation (from one person to the whole community) and whether the participation is voluntary and representative.



Figure 2.1: A framework of citizen participation. (Source: Adapted from Cohen and Uphoff (1980), Bracht and Tsourus (1990) and Rifkin et al (2000)).

Where does participation take place? As shown in figure 2.1 this question can be explored by considering the definition of the community, by comparing the local versus the national level, by looking at historical tradition and by considering how ready the community is to participate. In defining the community the question of homogeneity and how this results in social cohesion⁵ and defines what a community

⁵ Social Cohesion is defined as the recreation of networks, norms, thrust that existed previously and had contributed to mutual benefits Putnam, R.D. (1995).

is has been raised by several authors (Guijt and Kaul Shah, 1998). Two groups stand out as being excluded, women and children. Guijt and Kaul Shah (1998) argue that it is vital that women's exclusion is addressed and yet the category "women" is so loosely defined and used that any woman who participates comes to represent women-in-general. The power effects of difference within the category "women" have long been a concern within feminist circles (Moore, 1994). In relation to the exclusion of children, the 1989 United Nations Convention of the Rights of the Child (http://www.unicef.org/crc/index_30172.html accessed the 20th of January, 2005) states that these rights refer to the 3 P's, participation, protection and provision. Yet, the enforcement of children's rights is still far from being fulfilled. For effective participation to happen it is important to acknowledge and work with the whole family, including parents. But for this to happen, ultimately the biggest challenge is ethical issues arising from disparities in power and status between adults and children.

In considering the local versus the regional locus of participation, we can also compare participation of the state versus the civil society and participation of those who are privileged versus those who are weak and excluded. Differences in participation do not take place in a vacuum, they depend on an enabling environment (including a conducive political framework and appropriate timing (Woelk, 1992)), which is linked to changes in development thinking, especially that of the bigger development agencies such as the World Bank whose view of participation at specific points in time has influenced both donors and NGOs. This was clearly demonstrated by Morgan (1990) in his description of how the primary health care programme with its community participation collapsed in Costa Rica when development aid from the United States disappeared and the credibility of the state was beginning to be questioned by its citizens. The last parameter, community readiness, has also proven to be related to community cohesiveness. It has long been known that well-integrated communities are characterized by strong family ties and high levels of participation in the group's social, political and religious life. Granovetter argued already in 1977 that both strong and weak ties are necessary for group existence, strong ties linking closed groups such as families and weak ties linking more informal relationships such as those between neighbours and colleagues (Granovetter, 1977). But neither well-integrated nor disintegrated communities are stable because the strength of intrapersonal and interactional connections depends on environmental factors, such as adequate economic resources, to meet basic needs and stability of the population (Speer, Jackson and Peterson, 2001). The North-South dialogue has lately opened up other, hardly recognised, factors influencing participation in relation to 'where'. Such factors are the demographic components influenced by the HIV/AIDS pandemic and the national and international security.

When does participation take place? Here we need to consider both time and space. This has been clearly shown by Gibbon (1999) who undertook action research with women's groups in Nepal and developed a framework called: the Health Analysis and Action Cycle. This research showed that the timing of the participatory process and the time required by the women to be involved in the process itself were of the utmost important followed by the amount of time participatory approaches require to be effective in changing behaviour and bringing about change.

⁶ A detailed list of acronyms is given at the beginning of this thesis.

The second factor that we need to consider in relation to how participation is implemented is methods, and how these are selected during the participatory process. Robert Chambers (1983; 1993; 1994a; 1994c) has played a prominent role in defining and developing PRA over the past two decades. He has been influenced by Paulo Freire's work on dialogue and conscientisation and he describes PRA as "a growing family of approaches and methods to enable local people to share, enhance and analyse their knowledge of life and conditions and to plan" (Chambers, 1994b, p. 953). This description has been criticised for lacking any reference to action and today the term Participatory Learning and Action (PLA) (Pretty et al., 1995) is slowly replacing PRA. PLA practitioners start from the recognition that poor communities have a wealth of local, technical and social knowledge. These practitioners have developed a wide range of techniques based on the idea that visualisation can help people participate. The starting point is therefore the collective construction of maps, matrices, calendars and diagrams on the ground using whatever materials are locally available.

Proponents of PLA claim that methods and tools are not just a set of techniques but an approach, even to life (Cornwall, Musyoki and Garett, 2001b), that requires the use of certain methods together with a change of attitude/behaviour and a sharing of experiences. As shown in figure 2.2 this approach can lead to institutional change, professional change and personal change. The inner triangle of this figure demonstrates the micro-process of participation. Participation can start at any of the three circles (methods, sharing and behaviour/attitudes) but all are important for a reasonable quality process to take place. To scale-up the participatory process and make it sustainable the outer triangle and its three components (personal change, institutional change and professional change) are important, as are the interrelations between the three components of the inner and outer triangles (Chambers, 1997a). One of the components that receives much attention is methods. Many projects calling themselves participatory have unfortunately only focussed on methods and tools, and therefore failed. As Cleaver (2001) points out, reviewing and improving participatory techniques cannot substitute for a more fundamental examination of the very concepts that inform such approaches.



Figure 2.2: Preconditions for a participatory process and its scaling-up, "Dimension and linkages of change" (Source: Chambers (1997a)).

There is a wealth of experiences using participatory approaches in developing countries and, nowadays, also in developed countries. Lessons learned from participatory interventions have not only helped us to understand appropriate solutions to better development outcomes but the processes have also shown that inclusion of people in analysis and action can lead to their better sense of well-being (Chambers, 1997a) and projects (Mubyazi and Hutton, 2003).

In contrast, lack of participation can also be recognised as a form of social exclusion. Thus, participation or inclusion can be thought of as a goal in itself and a response to exclusion. Participation can also help the excluded to act effectively to address the problems they face (Gaventa and Valderrama, 1999). Despite the claim of Wellbourn (1992), who argues that participatory processes have not always been sensitive to all issues of difference (e.g. ethnicity, wealth/poverty, gender, age and disability), other authors contend that there is growing evidence of successes in understanding many issues, including the importance of socio-economic, gender and ethnic status, from the use of participatory methods (Kane, 1996; WB, 1996).

The third factor in relation to how participation is implemented refers to the *quality* of the participatory process. By quality I refer to issues of the core (inner circle) shown in figure 2.2. These core components are the three "pillars" supporting the PRA process, which are methods, attitude and behaviour and sharing. As Kane

contends, methods *are* behavioural and attitudinal and therefore advices to critically examine the underlying assumption of participation (Kane, 2000).

The last factor refers to sectorial (topical) versus multi-sectorial (general) use of PRA. PRA has sometimes been seen as the panacea to all problems and there has been little reflection of the importance of intersectorial collaboration in the use of PRA. PRA has become a "buzz" word for development agencies, especially after material well-being theories failed to show significant results. If we consider development holistically we cannot avoid working in a multi-sectorial way but lack of collaboration has sometimes resulted in a village participating in a number of different PRAs on specific topics as well as a more general or combined PRAs.

Participation by whom? To complete the picture of what participation means, and to identify the strategic and methodological parameters, it is important to know who the stakeholders⁷ are, including the facilitators of the participatory process. As stakeholder participation is a broad term I have divided stakeholders into different areas of relevance (category and power) and examined stakeholder participation using these areas (table 2.1). Participation tends to be premised on the idea that everybody would want to participate if they could.

Category	Stakeholder			
	Less power		more power	
By level	Community to	national and	international level	
By status	Citizen, family head, Community based organisation, Public sector, NGO, private sector, donors			
By location	Remote	and	non-remote	
	Non-commercial	and	commercial	
By function (power/social status)	Clients	providers (sometimes facilitators)	systems	

Table 2.1: Stakeholders power structure.

The active choice *not* to participate is barely recognised. Much depends on who participates, who facilitates the participatory process, the depth and scope of

⁷ A stakeholder has been defined as the identification, and inclusion in the project process, of those individuals or groups who could affect, or be affected by, the outcome of the project activities (Salmen, L. (1990).

participation, and the participants' views on development, including their (power) relationships in society and existing socio-cultural norms and practices. Cornwall (2000a p.52) points to the importance of relationships and states that kinship, patronage or clientele may be both exploitative and enabling. Participatory approaches can overlook alliances, which may play a role in addressing poverty and inequity in a community.

Chambers (1983 Chapter 2) notes that participation often requires a reversal in the normal role of a facilitator. This role, usually attributed to the person with authority, is to transfer and create an environment for ownership in which each person wants to be responsible for his or her own performance (assuming that the knowledge and skills are there) (Bolman and Deal, 1996 p.175). But the odds are against such a position. We have all grown up learning to follow authority figures, such as parents, teachers and bosses. The first and probably most frequently reinforced lesson we learn is "do as you are told" by the person in charge. This attitude is reinforced through the educational systems in many developing countries. To come to terms with these issues of power and control has not been an easy task for many facilitators. This is expressed by White (1999 p.16) in the following quote,

"for a development professional to talk about participation is pretty simple. But, to walk the talk with a commitment to make it happen, and to possess the savvy and patience to see it happen, is not easy"

Why is participation needed? Several authors explore why participation is needed. One of the first authors was Bamberger (1988) who described five specific objectives of participation: sharing cost, increasing efficiency, increasing effectiveness, building a beneficiary's capacity and increasing empowerment. Shrimpton (1995) later pointed out that the emphasis on any of these five objectives depends on the promoter, and while government programmes promote participation for efficiency, NGOs often promote participation for empowerment and capacity building.

Another way of looking at why participation is needed is to consider it as a means or an end. Oakley (1989) and Mikkelsen (1995) suggest that participation centres on being a *means* to development but other authors see participation as *an end* in itself.

While Bamberger's classification of participation as contributing to sharing cost, effectiveness and efficiency can be argued to be *means-based*, participation as capacity building and empowerment can be *end-based*. These two distinctions are important for understanding the framework of measuring participation. Participation as a means implies the use of participation to achieve some predetermined goal or objective. In other words, participation is a way of harnessing the existing physical, economic and social resources of people in order to achieve the objectives of development programmes and projects.

Many authors (Oakley (1989; 1991), Nelson and Wright (1995) and Mikkelsen (1995)) argue that participation as a means (the efficiency argument) is a "transformational" or passive sort of participation. In contrast participation as an end (the equity and empowerment argument) is an entirely different concept. This form of participation is "instrumental," which means that participation is seen as a process that unfolds over time and whose purpose is to develop and strengthen the capabilities of people to intervene more directly in development initiatives. When we compare these arguments with experiences from the field it is hard to find evidence to support either of the two extremes, such as participation as a means *only*, or participation as an end in itself *only*. Instead, case studies support the argument for participation *as a means and as an* end (Estrella et al., 2000; Rifkin, Lewando-Hunt and Draper, 2000).

2.1.3 Strengths and weaknesses of participatory approaches

The major strengths of participatory approaches have been shown from the implementation of several micro-level efforts in providing basic social services, including health care and education which are in existence in several countries, especially deprived ones (Wassenich and Whiteside, 2004). The strength of these efforts lies in their participatory approaches, their appropriateness to the specific context, their capacity to be responsive to the basic needs of households in a holistic manner, their sensitivity to issues of gender, class, ethnic groups and their sustainability over time in limited contexts. Their limitation lies in their restricted scale, considering the huge need for social services (including health and education), and in that they remain largely unrelated to national efforts for change to happen. Other limitations include definitional differences and debate over the objectives of

participation (Nelson and Wright, 1995), lack of proven cost effectiveness, discrepancies between local planning and central sector planning, inabilities to coordinate integrated efforts at all levels and, therefore, a lack of possibilities for scaling-up (Leyland, 1991; Jones, 1997).

Cooke and Kothari (2001) in their book called "Participation, The new Tyranny?" give three questions that need to be asked as part of a deeper analysis for participation to move beyond micro level, "Do participatory facilitators override existing legitimate decision-making processes?, "Do group dynamics lead to participatory decisions that reinforce the interest of the already powerful?" and "Have participatory methods driven out other methods, which have advantages which participation cannot provide". As we see from the above questions participation is not the sole answer to solving development problems. I have argued that participation is important, but not always sufficient, for sustainable development processes and outcomes. Could participation for example lead to empowerment but not necessarily better outcomes? For answering this question it is important to examine empowerment, its relationship to participation and to development outcomes.

2.1.4 Empowerment

Stromquist (1996) asserts that empowerment as a concept has its origins amongst popular movements. It emerged during the U.S. civil rights movements in the 1960s. Later, in the mid-1970s, it began to be applied within women's movements prior to the 1985 World Conference of Women in Nairobi. Rappaport (1984; 1985; 1987) is another theorist writer on empowerment. He contends that empowerment cannot be given but must be taken by those who seek it. In a westernised context empowerment is often seen in individualistic terms as a process that starts with the individual and reaches the community. In the non-western world empowerment can take a completely different form. This is noted by Moser (1998) who claims that the origins of empowerment are mainly derived from the emergent feminist writings and grassroots organisational experience of the Third World. Empowerment acknowledges inequalities between men and women, as well as ethnic and social groups. Empowerment questions assumptions between power and development, acknowledging the need for the oppressed to increase their power.

Stromquist (1996 p.10), another author of feminist writing, states that "empowerment is a process to change the distribution of power, both in interpersonal relation and in institutions throughout society..." and points out that the prime target of empowerment must be low-income adult women, and a prerequisite should then be stepping outside the home and participating in some form of collective undertaking that can be successful. Stromquist (1996 p. 14-16) further argues that a full definition of empowerment must address the following points:

- a) Cognitive: Refers to women's understanding of their conditions of subordination and its causes at micro and macro levels of society. It involves understanding of the self and the need to make choices that may go against cultural and social expectations, gender relations and the destruction of old beliefs that form powerful gender ideologies, knowledge about sexualities beyond family planning, legal rights and elements that shape conjugal dynamics (e.g. fertility, child bearing, affection and rejection, unpaid domestic work).
- b) Psychological: The development of feelings that women can act at personal and societal level to improve their condition and the belief that they can succeed in their change efforts, over-coming the "learned helplessness" role. In order to do this, conditions to develop self-confidence and self-esteem must be provided to participants. Women have to be involved in planning and implementing projects.
- c) Economic: This strengthens the psychological element. Access to work increases a woman's economic independence and, with this, her level of general independence. This component requires that women are able to engage in a productive activity that will allow them some degree of financial autonomy, for instance in income generating projects.
- d) Political: Entails the ability to analyse, organise and mobilise for social change. Consequently, an empowerment process must involve individual awareness and collective action, which is fundamental to the aim of social transformation.

The empowerment construct has emerged partly from feminist theories as stated above, partly from community psychology (Rappaport, 1981; Zimmerman, 2000), health education (Wallerstein and Bernstein, 1994), community organisation (Minkler, 1997), and social work (Gutierrez and Lewis, 1997). WHO (1997) has defined empowerment as, "a social action process by which individuals, communities, and organisations gain mastery over their lives in the context of changing their social and political environment to improve equity and quality of life". This clearly embraces political change and aim at social justice. Wallerstein (1992; 2002) describe how empowerment is an interaction of change at both vertical and horizontal levels. She states that empowerment refers both to a value-base aiming at social justice and to theory which includes both process and outcomes elements. These processes and outcomes can by themselves lead to improved health status.

Nelson and Wright (1995) and Rowlands (1997) contend that the meaning of the term empowerment needs to move beyond the focus on formal equality. They point out that some confusion about empowerment arises because the root concept – power – is in itself disrupted and explain that most frameworks for understanding power are apparently neutral because they make no comment about how power is distributed within a society. There is no consideration of the power dynamics of gender, ethnicity, social class or any other form of oppression. They highlight the meaning of empowerment according to the three different definitions of power - "power over", "power to" and "power with" - and, lastly, the feminist perspective of empowerment. Table 2.2 shows and explain these differences.

Empowerment processes are dynamic. For example, a positive change in one dimension can encourage a change in the same or another dimension (Rowland, 1997). The dimensions that Rowland addresses are other ways to understand what Stromquist and Moser consider the components of empowerment and have enormous potential because the reflections come from the grassroots. Other writers on empowerment such as Rissel (1994) and Israel (1985; 1994; 1995) identify empowerment as psychological, organisational (structural) and political action and their analyses draw from democratic management theories.

Definitions of power in the empowerment construct	Meaning of empowerment	
Power over	Bringing people who are outside the decision	
	making process into it	
Power to and power with	It is concerned with the process by which	
	people become aware of their own interest and	
	how those relate to the interest of others, in	
	order both to participate from a position of	
	greater strength in decision making and	
	actually to influence such decision	
Feminist perspective of "power over"	- Entails understanding the dynamics of	
	oppression and internalise oppression	
	- It is thus more than participation in	
	decision making; it must also include the	
	processes that lead people to perceive	
	themselves as able and entitled to make	
	decisions	
	- Includes "power to" and "power from	
	within"	
	- It must involve undoing negative social	
	constructions, so that people come to see	
	themselves as having the capacity and the	
	right to act and influence decision making	

Table 2.2: Definitions and explanations of empowerment.

An empowered organisation is one that is democratically managed and in which its members share information and have control over decisions that affect them.

Taking this further, the health promotion literature states that community empowerment is a five-point continuum comprising: 1) personal action; 2) the development of small mutual groups; 3) community organisation; 4) partnership; and 5) social and political action and must be understood both as a process and an outcome in context (Laverack and Wallerstein, 2001; Laverack, 2004, p.47). This is in line with the framework developed by Alsop and Heinsohn (2005) shown in figure 2.3.

Alsop and Heinsohn define empowerment as, "enhancing an individual's or group's capacity to make choices and transfer those choices into desired actions and outcomes". The capacity to make effective choices is primarily influenced by two sets of factors: agency and opportunity structures. Agency is defined as an actor's ability to make meaningful choices, such as visioning options and make a choice, and opportunity structures are defined as the formal and informal contexts within which actors operate.

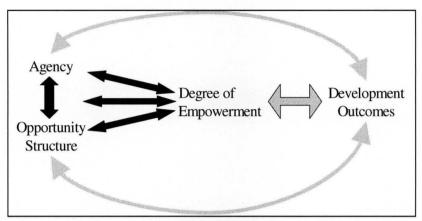


Figure 2.3: The relationships between development outcomes and empowerment consisting of agency and opportunity structures.

Agency or the capacity to make meaningful choices is related to asset building. Alsop and Heinsohn describe six important asset building blocks, which are psychological, informational, organisational, material, financial and human.

Degrees of empowerment are classified according to:

- 1) whether an opportunity to make a choice exist, such as a place for a girl in school
- 2) whether a person actually uses the opportunity to choose, such as the mother chooses to send her daughter to school, and
- 3) whether the choice result in the desired outcome, such as whether the daughter attend school.

The relationship between participation and empowerment is blurred. However, there seems to be a consensus around the fact that empowerment goes further than participation in aiming for social justice and change, usually through affecting public policies, decision-making authorities and resource allocation. The overlap therefore lies in the "six helpers" described earlier. However, whilst empowerment is often another buzz word used and misused in the development vocabulary, arguments put forward by different authors confirm that participation has to go through an "empowerment" process for any significant change in social structures to take place.

2.1.5 Participation and empowerment as agents of change

The relevance of participation and empowerment in relation to the change process are important for answering the second research question: "How can people's participation in a health development programme be assessed'? Central to the change process is the process and impact of participation, the nature of data collection and the assessment focus as part of an ever-changing environment. However, I am very well aware of the fact that the implications of participatory approaches, actually go beyond conventional measurable changes and are concerned with building people's capacities to improve learning and self-reliance.

The Oxford dictionary defines change as, "The act or fact of changing; substituting one thing with another; succession of one thing in place of another" (Society, 1970). The change process associated with participation has been described in management literature, in literature on monitoring and evaluation coming out of management, in health promotion literature and, lastly, in social science literature. There is now a widespread recognition, in name at least, that participation and empowerment are critical for achieving results in development as part of a change process (Wallerstein, 2002; Laverack, In press). However, using participatory approaches acknowledges that there is a need for a more flexible, evolving and iterative process to planning for change, and this poses new challenges for practitioners, politicians and academics alike. In particular, this requires major personal, professional and institutional change to ensure responsiveness both to local needs and to demands from policy level, which eventually will enable communities to act. Furthermore, people at the local level require understanding of the need for responsibility, building consensus and accountability at policy level.

For development programmes this means that detailed action plans drawn up at the outset are no longer enough. These plans often focus on external identified goals and do not realise that change includes problem solving, such as conflict resolution, coordination, communication and sharing of information and data. Evidence suggests that for development programmes to succeed, a participatory approach to their management is necessary (Foster, 2001) and this requires a paradigm shift in the current development thinking (Estrella et al., 2000). A participatory approach to development has, so far, mainly paid attention to process (UNDP, 1996), recognising

that a programme is as good and/or as bad as the people involved in it and their way of doing things. The question is still whether there can be a balance between maintaining flexibility and process and, simultaneously, providing "objective" information that compares measurable changes on a continuous basis over time and that is applicable for making generalisations at policy level and ensuring that local level needs and demands are met.

Comparing this dichotomy with emerging trends in development, the 1997 Human Development Report (http://hdr.undp.org/reports/global/1997/en/ accessed the 20th of January, 2006) concludes that the alleviation of poverty requires both human development and economic growth progressing simultaneously. Jonsson (1992; 1997b) has taken this a step further and presented a visual rights-based framework for development. This framework is based on best practices of 21 nutrition programmes in South Asia. I will use this framework to illustrate my assumption of what is needed for an effective change process to take place. An example of the sequence of a development project is outlined in figure 2.4. The line and arrow show how a project can, over time, move in and out of the different sections (A, B, C and D) that emphasise output and process. For sustainable change to happen in health development (outcome), both an adequate process and a certain output are required. While the ideal final stage of a development process is in section D (combining process and output), most health development starts in section A, then either moves into sections B (emphasis of output only) or C (emphasis on process only), depending on the priorities and timeframe of the donor.

Figure 2.4 illustrates well how the ideal development process might progress. However, this framework is a simplified mirror of a complex process that is seldom linear but, more often than not, cyclical and iterative in character.

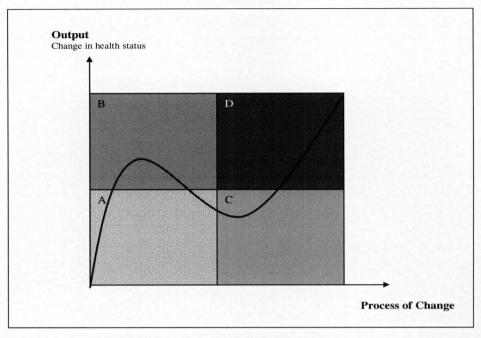


Figure 2.4: Framework depicting process versus output as part of a change process. Adapted from Jonsson (1997b).

The quantitative assessment of output, such as the assessment of nutritional status of children under five years old, is relatively simple. Much less simple is the assessment of the change process (participation and empowerment). This is largely because the overall problem of accountability and consensus building, and their relationship to participation and empowerment, has seldom been defined. To combine process and output to obtain a sustained development process (outcome) is important but yet the assessment of this combination has so far not been documented, perhaps due to a lack of assessment tools.

2.2 Assessing participation and empowerment

I have argued in section 2.1.6 that for a project to succeed both process and impact are needed. Politicians, practitioners and academics have an interest in knowing the effectiveness and efficiency of participatory approaches; the politicians and the practitioners from the point of justifying spent resources, and the academics from the point of justifying an approach for a research strategy (Jonsson, 1997a; Estrella et al., 2000; Rifkin, Lewando-Hunt and Draper, 2000). Success in the health sector is measured as decreases in infant mortality and increases in life expectancy, which are relatively simple quantitative measurements with clearly defined measurement

methods. In contrast, the measurement of process, including participation and empowerment, is more complicated and has limitations. Firstly, there is no universally accepted definition of participation and empowerment. Secondly, Marsden and Oakley (1990) and Oakley (2001) stress that processes should be seen in the context of their environment and should explore relationships and continuously redefine knowledge and project outcomes. Furthermore, processes often refer back to the qualitative paradigm, which assumes quantitative measurements. For example a women group's ability and willing to act upon their health problem is often measured in number of meetings, but the number of meetings does not explain nor assess the empowerment process that often happen. Process indicators are hard to assess but are critical for ensuring equitable decision making and resource allocation, not least in the health sector (Mayhew et al., 2004).

Based on a literature review of more than 100 case studies, Rifkin *et al* (1988) suggest six factors of importance for assessing participation. These are: 1) needs assessment; 2) leadership; 3) organisation; 4) resource mobilisation; 5) management; and 6) focus on the poor. Furthermore, she suggests an analytical framework consisting of five of the six factors mentioned above and has used this to develop a model where each of these factors represents one spoke in a spider diagram (see figure 2.5). Stakeholders are then able to subjectively score their views on a predetermined divided spoke using local available materials (e.g. stones, leaves and sticks). One spoke can, for example, be divided into units of ten for easy scoring, as shown in figure 2.5. The participant is asked to give a value (a score) and these values are plotted onto the spoke. The score points are then connected to make an area equal to five triangles as shown by the red dots and a visual picture of participation, equal to the area inside the connected lines, can be measured and represents the stakeholder's view on participation.

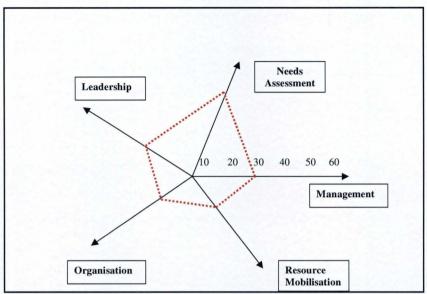


Figure 2.5: Spider diagram, showing the five factors important for assessing participation. Source: Rifkin et al (1988).

Howes (1993) describes how Finsterbusch and Van Wicklin were among the first to try measuring participation in quantitative terms. Their code sheet (shown in appendix 4) includes indicators such as: "degree of participation in project planning"; "degree of participation in implementation"; and "degree of organisation of beneficiaries". Another framework for studying participation in organisational decision-making processes consists of a causal model including four topics (Enderud, 1974). These are: 1) ways of participation; 2) intensity of participation; 3) effect of participation; and 4) causes of and conditions for participation.

A further development of this model was done by Westenholtz (1995), who included: 1) conditions at micro-, meso- and macro-level, which are/should be present in order to make work-place democracy function; 2) processes characterising democracy in terms of who participates in decision making, degree of participation, how participation takes place and levels within which decision domains exist; and 3) consequences of the processes which focus on whether the participants are able to cater for their interests. Rebien (1996, p.110) used the literature of these two authors to develops a matrix for assessing participation, which is shown in appendix 4. Although this framework proved useful for the three case studies quoted in his research, care should be taken when using an eclectic approach and introducing concepts and theoretical frameworks from one empirical field to another. Organisational decision making processes cannot be compared directly to

participatory processes. Despite this, Rebien argues that a participatory assessment is nevertheless a decision making process in itself. Although Rebien's framework tries to be inclusive there are a number of concerns. First of all there is little recognition of power and social relations. Secondly, as stated by Pretty (1994), "trustworthiness⁸," is an issue for concern.

In the health sector Shrimpton (1995) and Gibbon (1999) have taken Rebien and Rifkin's framework for assessing participation further. Table 2.3 show the factors they consider important. While Shrimpton used a 1-5 ranking scale, Gibbon used a spider-diagram for self-evaluation of women's groups' performance in her action research from Nepal. Her conclusion was that this visual tool was extremely useful in gaining insights into the strengths and weaknesses of the groups and that the groups would use this information in planning and evaluating future development activities. Building on the experiences of these authors, my aim is to further develop the already existing tools for assessing participation.

Factors considered important for assessing participation in	Shrimpton	Gibbon
the health sector		
Common factors for	Efficiency, empowerment:	
	1) need assessment 2) leadership	
	3) fund mobilisation 4) management	
Individual factors	organisation	group dynamic
	training	implementation
	orientation of action	linkages
	information exchange	
	monitoring, evaluation	

Table 2.3: Factors of importance for assessing participation.

I will take note of the strengths and weaknesses described from practitioners and from studies undertaken in the field of organisational/management and political sciences literature.

⁸ It refers to the length and depth of engagement by actors; persistent and parallel observation; cross-checking of sources, methods, investigations; participant checking, analysis and expression of

difference; negative case analysis; evidence of searching out different views and explanations; and impact on stakeholders' capacities to know and to act.

2.2.1 A Framework for assessing participation and empowerment

Drawing on the frameworks shown in figure 2.5, a model for assessing the effectiveness of participation and empowerment has been developed. It has been argued that participation is not just a set of techniques or tools but an approach that, in addition to using certain tools, requires sharing and change of attitude/behaviour. If the preconditions for participation are: sharing, application of certain methods/approaches and the change of behaviour/attitudes; the scaling-up of participatory approaches will involve institutional, professional and personal change. From my own experience a fourth component, access to and control over resources (rewards/incentives), is equally important and will be included in my conceptual framework shown in figure 2.6 below.

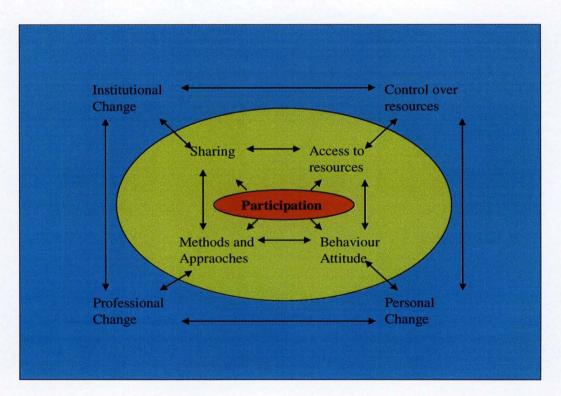


Figure 2.6: Expanded framework for assessing participation and empowerment. The inner rectangle in the green area shows conditions for participation and the outer rectangle in the blue area shows condition for empowerment.

I will refer to these preconditions as arenas and call them domain (the attitudes/behaviours needed for personal change) (ii) locus (the sharing needed for institutional change) (iii) procedures (tools and methods needed for professional change) and (iv) resources (access to control of the resource envelope).

Participation can start at either point of the inner circle of the framework shown in figure 2.6, but for a quality participatory process to take place all four conditions, methods and approaches, behaviour/attitude, sharing and access to resources are important (light green). For empowerment to happen all four condition in the outer circle are important (bright green). This framework relates also to the empowerment framework of Alsop and Heinsohn shown in figure 2.3. While methods and approaches as well as behaviour and attitude (the lower part of figure 2.6) and their upscaling can be said to refer to agency, sharing and access to resources and their upscaling can be said to refer to opportunity structures The framework shown in figure 2.6 will be used for assessing participation and empowerment in the field study in Kenya.

2.3 Summary and conclusion

Participatory methodologies and methods have been created to address the needs and wants of small communities. Their strengths and weaknesses have been discussed. In the 1960s and 1970s participation was seen as a means to promote development goals already fixed from above, whilst later, participation came to be an end in itself promoting governance and human rights. This questions some of the core values and limitations of participation, including consensus building, equity, power and control.

A framework for examining participation has been put forward using six "helpers" – what, where, when, how, who and why? These helpers are important for understanding the context and timing of participation, which defines preconditions. The diversity and purpose of participation and its facilitation are discussed and the power relations between and within groups are highlighted. Experiences reported in the literature and from the field have shown that taking a fixed stand at either end of the participation continuum has so far failed. This means that creating a fit between the building of knowledge about local needs and demands and the decision making about targets from above is important.

The chapter moves on to discuss participation in relation to the empowerment domain. Empowerment is related to power and it is only when we realise this fact that we can begin to appreciate the place of participation in its context of a personal, professional and organisational point of view. For change to be effective, efficient

and sustainable, both process and output are needed. However, very few, if any, monitoring tools and systems are able to assess both. More often than not impact is measured in quantitative terms. Different frameworks for assessing participation are discussed and the chapter finally proposes one that will be used for assessing participation and empowerment in this field study. Additional critical questions for further exploration of tools and methods are put forward for the following methodology section.

CHAPTER 3: HEALTH, NUTRITION, PARTICIPATION AND ITS EFFECTIVENESS

This chapter outlines the definitions of health, nutrition and malnutrition and uses UNICEFs conceptual framework to explain the factors important for understanding and assessing nutrition. The chapter further explains how the understanding of nutrition and its causes have changed over time from a needs to a rights based approach. Lastly, the chapter defines effectiveness and efficiency and relates these terms with the assessment of participation.

3.1 Definitions of health

What is health? Health can be understood as a dynamic state of physical, mental, emotional, social and spiritual dimensions. Health is the foundation upon which people fulfil their potential. Working for better health therefore leads to improving the quality of life. Health is a resource of everyday life, not the objective of living (WHO, 1986b); it is a precondition for participation and embraces power structures and political agendas and includes social and personal resources as well as physical capacities.

For a long time health professionals have regarded health as the absence of medically defined disease or disability. However, the World Health Organisation expanded the definition of health to a state of well-being in 1978 and defined it as "the state of complete physical, mental and social well-being, and not merely the absence of disease and infirmity"(WHO, 1978). This definition highlights the importance captured by a holistic approach such as in the implementation of health promotion programmes, which often include many other social and economic sectors. Although widely accepted, the WHO definition of health has also been criticised. For example, it is argued that a "state of complete... well-being" is unrealistic and idealistic (Ong, 1996 p.13). Moreover, health is not static but a fluid condition influenced by the socio-economic and political environment. With the focus on poverty in development circles, health has lately moved into a human rights approach (Mann, 1999) to the

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⁹ Health Promotion is defined as "the process of enabling people to increase control over the determinants of health and thereby improve their health. Participation is essential to sustain health promotion action" WHO (1986b).

extent that the WHO has recently set up a Health and Human Rights team (http://www.who.int/hhr/en/ accessed the 8th of May, 2005) and finally brought nutrition and human rights together (http://www.who.int/nut/nutrition1.htm accessed 8th May, 2005).

It is important to understand this development for three reasons. The first is that health policies have a profound impact (positive and/or negative) on human rights. Secondly, human rights violations have health impacts and, thirdly, the promotion and protection of human rights and the promotion and protection of health are fundamentally linked. Furthermore, individuals regard health subjectively, as a relative rather than a static state which is affected by a person's cultural backgrounds, social status and a variety of other factors. This is reflected in the modern concept of health, which is derived from two related disciplines, namely medicine and public health.

The medical concept is described by Mann (1999) as being concerned with the health of the individual in contrast to the health of the community. Osmari (1997) argues that while "medicine" provides some of the essential elements of health care, it does not constitute "being healthy" and is clearly not sufficient for health. He contends that there are three major strands explaining improvements in health. The first is the material well-being theory, which relates to the medicine discipline, where material prosperity has made it possible to improve health. This view is challenged by the second strand called the public health or technology based theory, which argues that it is medical technologies and advances in public health that have made the significant decline in mortality within the second half of the twentieth century possible. The third strand emerged because improved health could not only be explained by material well-being, technology and/or public health improvements but also had to include the cultural behavioural pattern of the people concerned. Thus, public health ensures the conditions in which people can be healthy, has an empowering goal and stresses prevention of diseases.

3.2 Nutrition and malnutrition

According to Pacey and Payne (1985) malnutrition can be defined as:

A state in which the physical function of an individual is impaired to the point where a person can no longer maintain adequate performance in such processes as growth, pregnancy, lactation, physical work, and resisting and recovering from diseases.

UNICEF has recently expanded the definition of malnutrition and state that:

Malnutrition – the state of being poorly nourished – is not merely a result of too little food, but of a combination of factors: insufficient protein, energy and micronutrients, frequent infections or disease, poor care and feeding practices, inadequate health services and unsafe water and sanitation. (http://www.unicef.org/nutrition/index_bigpicture.htlm accessed 31st of August, 2004, p.1).

Good nutrition has long been included in the definition of health and been viewed primarily as a responsibility of the Ministry of Health (MoH). However, as a subject, it generally has a footing in more than one Ministry. The Ministry of Health is concerned with the medical part of nutrition and malnutrition, the Ministry of Agriculture with food security and early warning systems, the Ministry of Social Welfare with social security schemes, destitution, vulnerable groups and coping strategies, and the Ministry of Planning and Finance (in relation to policy/strategy formulation and financing). Nutrition has, therefore, a truly inter-sectorial place in community, national and international settings, which have made it difficult to plan for and to implement in an effective and efficient way.

On the other hand, the fact that nutrition is so inter-sectorial has given it a unique entry point for participatory work, primarily at community level but lately also scaling up to national levels. This opportunity has not been sufficiently explored and exploited by technical ministries, such as health, agriculture and finance as they have simply not had the expertise to do so. Only recently, when it was realised that HIV/AIDS interventions needed stakeholder participation and inter-sectorial work, did the interest in participation by these technical ministries rise (Havemann, 2001).

Nutrition and malnutrition have often been related to poverty and hunger and, therefore part of a country's inter-sectorial, early warning systems. Early warning systems typically aim to predict and prevent the outcome of famine but these warning systems have used the limited view of malnutrition as an *outcome* of famine, rather than a predictor even though it is know that people in crisis usually choose to go hungry in order to preserve their meagre resources (Young and Jaspars, 1995). The same authors also argue that nutrition has been sidelined in poverty agendas due to its perception as outcome indicator. Poor nutrition is the single biggest risk factor contributing to the global burden of disease, and malnutrition is a direct or indirect cause of 60% of child deaths and contributes to 7.4% of DALY¹⁰ losses (Pellitier, Frongillo and Habicht, 1994; Caulfield et al., 2004; WB, 2006). Poor nutritional status can therefore be used as a proxy indicator for poverty, and an early warning of famine. As nutrition interventions are multisectorial in approaches poor nutritional status can also be used as a social indicator for inter-sectorial collaboration leading to better health and nutrition which is how it is used in the field study presented in this thesis.

3.2.1 Conceptual framework for malnutrition

In the past malnutrition was thought to be a medical problem caused by protein deficiency. The "protein gap", as it was called, was thought to be the most widespread nutritional problem and was believed to be cured by high protein foods (Young and Jaspars, 1995). The interaction between protein and energy was recognised by the mid-seventies and energy intake became a key issue. However new focus rose social and economic concerns regarding access to food by the poor and poverty was now seen to be the basic cause of malnutrition. Lately, malnutrition has also been associated with AIDS because certain nutrients seem to delay the development of AIDS as well as diarrhoeal diseases and malaria (Haddad and Gillespie, 2001; Thilsted, 2003).

Malnutrition has many causes. According to UNICEF (1990) the two immediate causes of malnutrition are an inadequate diet and infectious diseases. These, in turn, are determined by the underlying causes shown in figure 3.1, which can be adapted

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¹⁰ The disability-adjusted-life-year (DALY) is a summary measure that combines the impact of illness, disability and mortality on population health.

to include locally specific models of malnutrition. The reason for UNICEF to develop this framework was to address specific problems of malnutrition relating to different levels of governments and international organisations structures and systems.

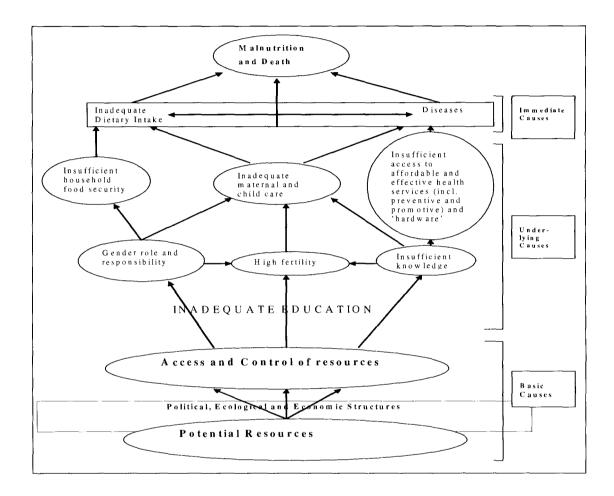


Figure 3.1: UNICEF's conceptual framework showing the causes of malnutrition (UNICEF (1990)).

Food security can be defined as "Secure access at all times to sufficient food for a healthy life" (Maxwell and Frankenberger, 1992), but food security (food availability) is different from nutrition security as food security does not include intra-household distribution of food (food accessibility). For example, there might be sufficient food in the market but poor households cannot afford to purchase it and are

therefore food insecure. Other important aspects of household food security are utilisation¹¹ and sustainability of accessible food.

The second important factor contributing to malnutrition is disease. The cyclical relationship between malnutrition and infection (disease) is well known. Infection precipitates malnutrition and malnutrition aggravates the outcomes of many infections. Severe malnutrition increases the incidence, duration and severity of infection (Tomkins, 1986; Tomkins and Watson, 1989; Tomkins, 2000). However, as the same author points out the relationship between malnutrition and infection is complicated. In some communities the association between anthropometric indices and the risk of infection and death is linear, while in others there is a threshold under which malnutrition sharply increases when the risk of infection increases. Furthermore, in some communities there is only a weak link between malnutrition and infection. Under-nutrition may also play a role in increasing the virulence of infections, putting even well nourished populations more at risk in the future. Evidence is now emerging that the linkages between poor quality diet and chronic diseases are equally strong in both developed and developing countries. It is also known that malnutrition suffered in utero may predispose to hypertension, coronary heart disease, and diabetes later in life (Walker et al., 2005).

3.2.2 The change in thinking about food security, nutrition and assessment

To understand the context in which nutrition security is embedded and measured it is important to understand how thinking about food security has changed over the last 35 years. The first shift in thinking was from global and national levels to the household and individual level. Recognition of the importance of intra-household power and resource allocation was instrumental in this shift. The second shift was from a "food first" perspective to a livelihood perspective. This shift was based on operational research of coping mechanisms and priority setting during famines, which clearly showed that objectives other than nutritional adequacy were important. Time preference (going hungry now to avoid being hungry later), respect, choice, feelings of deprivation, risk and vulnerability were central themes as people tried to secure sustainable livelihoods. The third and last shift was from "objective indicators"

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¹¹ Utilisation refers to proper storage, processing and use, including aspects of food safety, while sustainability refers to the fact that food should be available and accessible at all times.

to subjective perception". The only difference between these two perceptions was that in addition to the "objective condition of deprivation" the "feelings of deprivation" was also considered important. The inclusion of people as subjects was taken up by De Waal (1989) and Yong (2001) who developed this thinking further into a health crisis model (see figure 3.2).

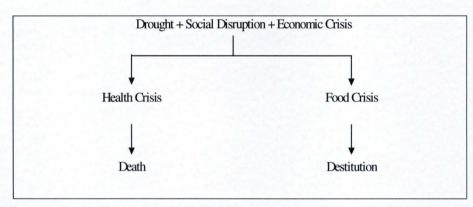


Figure 3.2: Health crisis model of famine (De Waal, 1989; Young, 2001).

They argued that the ability to cope or to deal with the consequences of drought, civil conflict and shocks and to preserve productive assets that were needed to sustain a living in the future, was much more important than nutritional status itself. Together with drought, Young and Jaspers (1995) stresses the social and economic crisis factors shown in figure 3.2.

However, it is one thing to talk about household food security and nutrition, another thing to assess it. Interest in assessment of nutritional status increased during the 1990s when the relationship between nutritional status and household food security became clear and it was included as a proxy indicator for poverty in the Human Development Index giving a central role to nutrition in poverty reduction (Schroeder, 2001; Horton, 2002; Pelletier and Frongillo, 2003). Statements of nutritional goals Millennium were included in the Development Goals (http://www.un.org/millenniumgoals/ accessed the 20th of January, 2006) and were thematic in the United Nations Special Session on Children in 2002 (http://www.unicef.org/specialsession/ accessed the 20th of January, 2006). The inclusion of nutrition in these International Declarations places efforts to reduce malnutrition within a rights based framework which is further cited in the work of Sen (2001).

Figure 3.3 presents a conceptual framework from an entitlement or rights perspective. This figure shows that it is nevertheless hard to find out whether anthropometric data in isolation will explain how children become malnourished, and in which contexts.

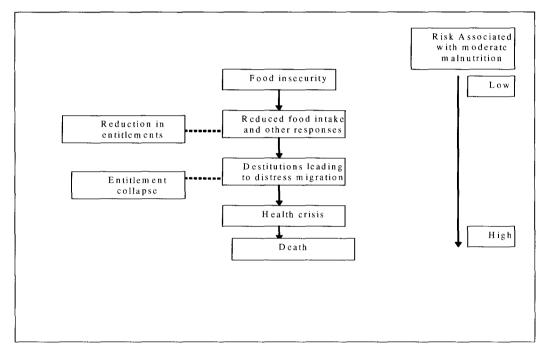


Figure 3.3 Nutrition status, malnutrition and death in famine: a conceptual framework from a rights perspective (Young and Jaspars, 1995).

The framework outlines the different stages a person and/or family goes through during a period of food shortage. The early stages of food shortage are equal to a reduction in entitlements and force people to adopt coping strategies, such as eating less or changing to inferior foods, which can lead to rising rates of acute malnutrition. If food shortages (equal to entitlements) are prolonged and simultaneously increased in scope and depth, people are forced to employ strategies that are increasingly threatening to their livelihood. Some people may become destitute and eventually starve when their entitlements (and rights) collapse. Destitution may then prompt distress migration and lead to a health crisis. High rates of wasting may occur but the associated risk of dying depends on the prevailing diseases and the intensity of exposure to famine. To address nutritional status we

therefore need to look beyond the confines of health, which challenges the norms of many health professionals.

The anthropmetric (or body) measurements that are used for assessing nutritional status are length (or height¹²) and weight recorded with age and sex. Measurements are used to derive an index such as length-for-age (HAZ=stunting), weight-for-age¹³ (WAZ=underweight) and weight-for-length (WHZ=wasting) for children and Body Mass Index (BMI) for adults. These indices are continuous variables. They usually involve imposition of a cut-off point to estimate population prevalence, e.g. the proportion of children (of defined age and sex) with weight less than 2 standard deviations (SD's) below the median or mean of a reference distribution for that age and sex. Stunting, underweight and wasting are measured in Z-scores, which is the deviation of the value of the individual child from the mean value of the reference population divided by the standard deviation for the reference population (http://cdc.gov.nchs/about/major/growthchart, accessed the 17th of May, 2004). While the 3 indicators for assessing malnutrition (stunting, underweight and wasting) are defined as less than two SD below the normal height-for age, weight-for-age and weight-for height, severe forms of these indicators are defined as three SD below the normal. The term 'indicator' is used only for population assessments and has no meaning for the individual.

Of the three nutritional indicators weight-for-age is the most widely used and has since the middle of the 1980s been used and promoted for growth monitoring and promotion (Gerein, 1988). Growth monitoring and promotion has been widely adopted as a means to improve the effectiveness of the health system in preventing and treating malnutrition in young children. But its usefulness is now being questioned because its ability to detect children at serious risk of malnutrition has not been proved and growth monitoring has not helped develop appropriate programme for prevention and treatment of malnutrition (Gerein, 1992). For this dissertation it is

weight-for-age is basically a proxy for length-for-age although it incorporates also deviations in the weight-for-length index and, when changing rapidly, may be a proxy for that index.



¹² Under the age of 36 months it is customary to measure length, using a measuring board. In older children between age 36-60 months standing height is the usual measure.

important to note that differences in the growth of children far more relate to social class than to ethnic factors (Cole, 2000; Cole, 2003).

3.3 Effectiveness and efficiency

There has for long been confusion over the terms effectiveness, efficiency, impact, outcome and output in the development literature. Roche (1999) defines impacts as "lasting or significant changes – positive or negative, intended or not – in people's lives brought about by a given action or series of actions". As we can see from figure 3.4, the term *efficiency* is used to assess the relationship between the input and the output of resources. Thus, an assessment of efficiency helps to decide whether the same result could have been achieved with fewer resources or whether significantly better results could have been achieved with only a small amount of additional resources.

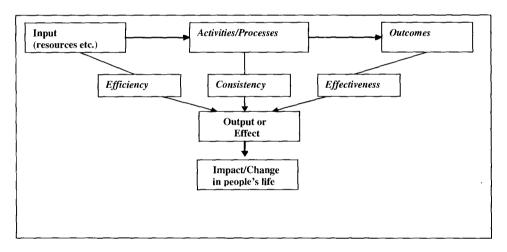


Figure 3.4: Effectiveness and efficiency diagram and their relation to output, outcome and impact. Adapted from Paul Willot (1989).

Kiggundu (1989) includes "quality" within efficiency, referring to the way (operations were conducted, in simple terms of "doing things well". An *effectiveness* assessment looks at the degree to which a project has achieved what it sets out to do. Effectiveness is a much more difficult term to define than efficiency and cannot be expressed in quantitative terms without reflecting on values and judgements of right and wrong. As Drucker (1967) remarks, "Effectiveness is doing the right thing". It is important to note that effectiveness, efficiency, outcome and output can relate to

positive and negative impacts as a result of intended and/or un-intended interventions. Lastly, one can assess whether the process adopted was *consistent* with the output achieved compared to planned output.

3.4 Participation and the health sector

The WHO's Constitution of 1948 states that, "Informed opinion and active cooperation on the part of the public are of the utmost importance in the improvement of the health of the people" (http://w3.whosea.org/aboutsearo/const.htm accessed the 8th of May, 2005). However, it was not until the 1970s that community participation in the health sector became important as a part of the three pillars of Primary Health Care in the Alma-Ata Declaration of the WHO (1978). It then took nearly another ten years before Oakley (1989) made the first contribution to the writing on the experiences of participation in the health sector. He linked participation to empowerment and recognises the relationship between participation and power, as well as the importance of the institutional culture and anchorage in which participation takes place. In the 1980s the WHO convened the first conference on the subject of "Community Involvement in Health 14" (CIH) and at that meeting the term CIH was first used explicitly to describe the basic principle of health care and health promotion (WHO, 1985). It was also during this decade that the First International Conference on Health Promotion identified strengthening community action as one of five for proactive health the key priorities creation (http://www.euro.who.int/aboutwho/policy/20010827_2, accessed 5th of May, 2005). CIH derived conceptual strength from the emerging trend towards an empowerment approach of participation from the 1980s. Yet, CIH lacked concrete focus and was implemented with a bias in favour of government and/or the public sector. Therefore the 47th World Health Assembly renamed CIH as Community Action for Health (CAH). The text stated that:

It is the obligation of the formal sector to share power rather than merely foster cooperation. In the context of community action for health the community is an agent for health and development, rather than a passive beneficiary of health and development programmes" (WHO, 1994).

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¹⁴ Community Involvement in Health is described as "a process by which partnership is established between government and local communities in the planning, implementation and utilisation of health activities in order to increase benefit from self-reliance and social control over health infrastructure, technology and process"

However, it was not clear how this was to be implemented and by whom. Ferguson (1999) states that people cannot realise their right to health unless they can also exercise their democratic right to participate in decision making processes about health service provision. Muthengi, Speight and Kilalo (2001, p.2) endorse this view drawing on a case study from Kenya to show that the rights to good leadership, transparency and accountability of funds and services from government officials are crucial for participation and empowerment.

3.5 Effective participation and the health sector

Not many authors have defined effective participation, and especially not so in the health sector. Dietvorst (2001) is an exception and states that "effective participation is the involvement of all relevant stakeholders in a sector during all stages of the programme cycle to ensure greater ownership of a demand driven and sustainable development process". She admits that the application of participation within a sectorial reform process has been mostly rhetorical and limited to the design and formulation stage. She notes that effective participation is more than merely getting people's views incorporated into sector plans, it is about reaching tangible results rather than good intentions. Shrimpton (1995) has shown that participatory approaches can be effectively used in the health sector and give a positive outcome. He analysed community participation in four food and nutrition programmes based on modes of community participation that existed in projects with harmonious cooperation. He found that community participation within government programmes was possible and beneficial and that severe malnutrition could decrease by 30-50% within two to three years of implementation. However, to be effective and achieve the degree of community organisation that permitted empowerment, it was important to create a dialogue between the "experts" and the community as well as foster the political will to enable participation to take place. This conclusion was endorsed by Blane et al. (1996) who contend that while there is a need for assessment there is also a need to pay attention to the interplay between statistical and qualitative methods in defining health needs and health outcomes.

3.6 Summary

This chapter has used the WHO 1978 definition of health and concludes that both health and nutrition have as concepts moved from a need based to a right based approach. The assessment parameters for nutrition and the limitations of these parameters as growth monitoring tools are explained. Considering participation in the health sector requires a holistic view where all sectors are involved and committed to the same goal and work together on equal terms. Effective intersectorial collaboration and equity are important preconditions for any change in health and nutritional status. Lastly, nutrition assessment is related to participation, effectiveness and efficiency and the chapter ends with stating that effective participation must focus on the interface between the provider and the end users of services.

CHAPTER 4: HEALTH, NUTRITION AND PARTICIPATION IN KENYA

Chapter four reviews the available literature on health and participation in Kenya. It then describes how this literature is linked to nutrition and the social sector. The Community Based Nutrition programme (CBNP), and its participatory approach called the Participatory Approach to Nutrition Security (PANS) are introduced will be used to examine how participation and empowerment have been operationalised in the health sector.

4.1 The Kenyan context

Kenya is relatively small compared to other African countries. With a surface of 580,000 km² and a population size of 31 million people it has a population density of 53 persons per km² and a population growth rate of 1.3% (falling from 3.8% in 1979) (GoK, 1998) (www.unicef.org/inforbycountry/kenya_stastitics.htlm, accessed 16.05.2005). The topography and access to arable land have, however, resulted in an uneven population distribution with a concentration of people in a line from the Coast province in the east, via Nairobi, to Nyanza province next to Lake Victoria in the west. Kenya borders Ethiopia to the north, Sudan to the northwest, Uganda to the west, Tanzania to the south and Somalia to the east. It also has 400 km of Indian Ocean shorelines to the east (GoK, 1998). Figure 4.1 shows a map of Kenya, its eight provinces and the location of Kwale district in Coast province, the selected area for the field study.

The Kenyan population consists of 43 ethno-linguistic groups. The major groups are Kikuyu, Luo, Luhya, Kamba, Kalenjin, Mijikenda, Meru, Embu and Kisii (GoK, 1998). These ethnic groups follow the borders of the different ecological and linguistic zones. While the official languages are English and Kiswahili, the latter is prevalent on the Kenyan coast where the study area was located. Officially, Kenya is a multi-religious society. However, a large majority of the population are Christians (about 80%) with Muslims constituting 10%, and people with both indigenous beliefs and other religions constituting another 10% (http://www.cia.gov/cia/publications/factbook/geos/ke.htlm accessed 19th of January, 2004). The population structure indicates that 44% are aged below 15 years old, 52%

are between 15 and 64 years old and 4% are aged 65 years and above. However, the increased prevalence of HIV/AIDS, together with the worsening situation of both the Kenyan economy and the real public expenditure in health, including nutrition, has made the life expectancy to decrease 15 years since the epidemic started in 1984 and the GDP to be reduced by 14.5% within the next 5-10 years (Baltazar et al., 2001; UN, 2001b).

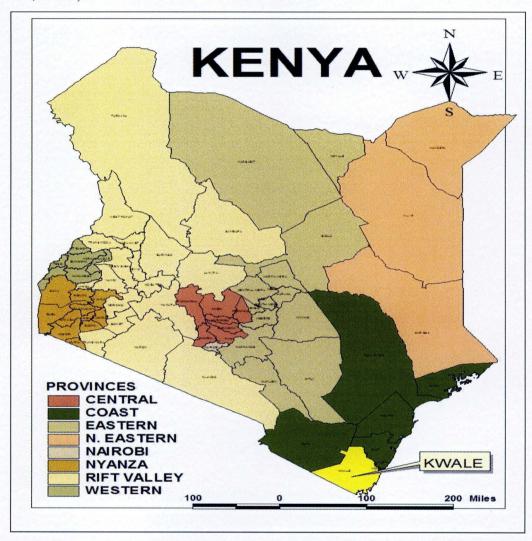


Figure 4.1: Map of Kenya showing the seven provinces and Kwale district in Coast province.

The 2000 "Poverty in Kenya, Vol. I and II", for example, gives incidence of food poverty as 47% in rural areas and 29% in urban areas, a fact confirmed by several other reports and previous surveys (GoK, 2000b; GoK, 2000c). This means that about 12.6 million people in Kenya currently live with an income which is insufficient to meet the minimum daily needs for food, shelter, clothing, transport

and other essential non-food items. Poverty also means shortened lives, illiteracy, social exclusion and the lack of material means to improve family circumstances. All these factors will eventually affect health and nutritional status and lead to decreased capacity (mental and physical) for participating in the development process (Grantham-McGregor, 1995; Grantham-McGregor, 1997a; Grantham-McGregor, 1997b; Walker et al., 2005). Malnutrition contributes to over 50% of the mortality rate for children under 5 years old in Kenya (GoK, 1994a; GoK, 1994b). This trend seems to have remained unchanged despite promises for change by the 2002 elected opposition party and the reintroduction of a multiparty system in 1991.

Kenya is administratively divided into eight provinces, which are sub-divided into 72 districts. Districts are again sub-divided into divisions, locations and sublocations. The sublocations are the lowest units of the Government of Kenya's (GoK) administrative system. Each administrative unit, from provincial to sublocation level, is headed by a GoK officer answerable to the Office of the President under the Provincial Administration (figure 4.2). The highest authorities at each level of the civil service are provincial commissioners at provincial level, district commissioners at district level, district officers at divisional level, chiefs at location level, sub-chiefs at sub-location level and village chairmen at village level (see figure 4.2).

In order to understand the result of this field study presented later in this dissertation it is important to explain how these GoK officers relate to the organisational structure of the GoK system and to the community through which the implementation of the PANS process took place. The lowest administrative unit, called a sub-location, follows the GoK administrative structure and is headed by a sub-chief (appointed after advertisement by the district commissioner). The sub-chief selects a chairman and a vice chairman from each village in his sub-location. From the group of village chairmen and vice-chairmen, the sub-chief forms the sub-locational development committee. This committee reports to the location, division and district development committee in all matters relating to local development.

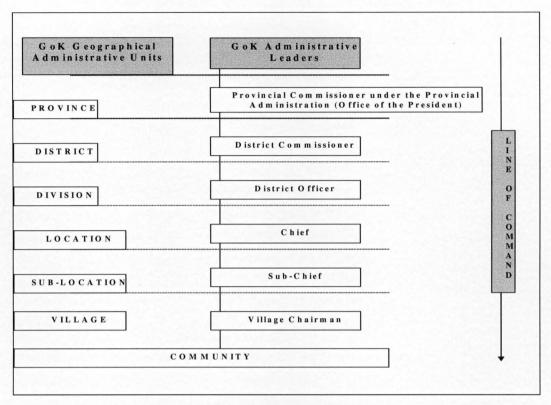


Figure 4.2: The administrative structure of the GoK system.

4.2 The health sector

So far, the key actors in the health and social sectors have been the central government (through the Ministry of Health and the Ministry of Culture and Social Services), private for profit and private non-for-profit systems and the local government authorities. These systems are organised and implemented at national, provincial, district and sub-district levels. Below sub-district level the health system is divided into division, location, sublocation and community (see figure 4.2). At each stratum of the health system, curative, preventive and promotive services are offered. This mode of organisation forms the pyramid-like pattern, which also defines the socio-medical referral system in Kenya, and delineates the line of command in the social service sector. At the very bottom of the pyramid are the health posts, the dispensaries and the mobile clinics. The health posts are manned by community health workers and, for social services, the community development officers.

Technical and socio-economic problems have crippled the health sector, especially during the last two decades, but this fact has often been hidden by the aggregation of national data resulting in insufficient political attention to vulnerable groups and areas. Both the 1998 and the 2003 Kenya Demographic and Health Survey (GoK, 1998; GoK, 2003) indicate that the under-five mortality rate has increased from 89 deaths per 1000 live births in 1989 to 114 deaths per 1000 live births in 2003. In addition, a total of 31% of children below 5 years of age in Kenya are still stunted, a condition reflecting chronic malnutrition. Of these, about one-third are severely stunted with the Coast, Eastern and Rift Valley provinces most severely affected with 14%, 13.5% and 12.3% respectively. The Demographic and Health Survey 2002 also records a significant decline in immunisation status of children aged 12-23 months, from 79% in 1968 to 52% in 2003 (see appendix 5).

4.3 The social sector and nutrition

The Kenyan Government's commitment to addressing poverty related issues such as ill health and malnutrition is reflected in a number of national policies and plans and in the formation of standing commissions and task forces. The most relevant to health and nutrition and for this study are: the National Plan of Action for Nutrition (GoK, 1994a); the Fifth Nutrition Survey (GoK, 1994b); the Health Sector Policy Framework (GoK, 1994c); the Welfare Monitoring Survey (GoK, 1996); and the Interim Poverty Reduction Strategy Paper (GoK, 2000a) and the Economic Recovery Wealth 2004 Strategy for and **Employment** (http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/KENYA EXTN/0,,menuPK:356524~pagePK:141132~piPK:141123~theSitePK:356509,00.ht ml accessed the 2nd of July, 2005).

One of the objectives of the National Plan of Action for Nutrition was to enhance the capacity of the Government of Kenya and its personnel through the Ministry of Culture and Social Services by designing and implementing poverty focused programmes. These programmes should be committed to community participation and decentralisation. The Ministry of Culture and Social Services' main agent in the implementation of community-oriented strategies was the Community Based Nutrition Programme (CBNP) and the Division of Community Development. While

the CBNP focused on nutrition and used this as an entry point for participation and improved service delivery, the Division of Community Development used an unfocused approach to work both with and in communities. These two divisions were merged in 2002.

4.3.1 The Community Based Nutrition Programme

Since 1979 the Danish International Development Agency (Danida) has supported the CBNP in the Ministry of Culture and Social Services both technically and financially. However, while the technical support was facilitation and advising, the financial donor support was controlled by Danida and disbursement happened in consultation with the GoK. The aim of the CBNP was to reduce malnutrition among children under five years of age in the service areas associated with the 14 Community Based Nutrition Centres in six of the eight provinces of Kenya, which corresponds to 14 of the 72 districts. The programme strategy was first pursued through an institutional approach but this was later changed to include preventive and promotive services using participatory and action-oriented methods, which are described below.

The Community Based Nutrition Programme emerged from what was called the Family Life Training Programme during the Kenyan struggle for independence. The programme has undergone several strategic phases. During Phase I (1980-1990) the main focus was on residential treatment of severely malnourished children. During Phase II (1990-1998) several innovative methods and tools were tested to target the root causes of malnutrition and establish a more effective and sustainable intervention programme. It was during this period that the programme was renamed the Community Based Nutrition Programme and the Participatory Approach to Nutrition Security (PANS) model was developed and tested successfully in Mbooni Community Based Nutrition Centre in Makueni district. At the end of Phase II the PANS approach had started in three districts and a massive scaling-up to cover all the 14 districts and later country-wide was planned for Phase III (1999-2005).

The main contributors to the success of the PANS approach were first and foremost the staff in the Ministry of Culture and Social Services at sub-district, district, provincial and central levels. In addition, there was technical support from the Unit of Applied Human Nutrition, University of Nairobi for a period of 2½ years to one district where the PANS approach was piloted. This support was phased out simultaneously with the institutionalisation of the approach into the Ministry's own structure and systems.

With the re-structuring of the CBNP management, and in preparation for the latest programme phase (2000-2005), the implementation and power focus shifted away from the end-users by establishing committee structures, sometime parallel to other local structures and consisting exclusively of GoK officers. Concurrently, the financial management and monitoring systems were centralised. Although this could have been a donor requirement, it increasingly estranged the programme activities from the end-users, neglected the needs and demands of the very people on the ground that were the reason for the programme to exist.

Due to claimed misappropriation of donor funds and corruption in the central government, Kenya became an outcast for some time, leaving donors to support NGOs and district level initiatives. In 2002, with the so-called democratically elected government, Kenya was back into the fold of countries targeted for support through sector wide approaches and the likelihood that a programme like CBNP will survive is little. One reason is its relatively low spending and its approach, a "non-fit" in the current donor-driven Sector-Wide Approach. In an attempt to survive, CBNP has now changed its name to the Community Capacity Support Programme, stressing capacity building as the main focus for intervention and detaching itself from the health (and nutrition) development change process and outcomes.

4.4 Practical application of participatory methods

Community development and participation have a long history in Kenya. Participatory initiatives started in the 1960s and 1970s through the spirit of what is called *harambee* (Kiswahili for "pulling together"). *Harambee* is a form of collective self-help used to harness resources to support community identified needs, both within and outside the community. Originally, the *harambee* spirit emerged from Kenya's first President Kenyatta when he took power after the struggle for independence in 1963. *Harambee* was primarily used for collectively financing a

worthy cause but since the last decade has been used politically to solicit support from different ethnic groups.

Participatory Rural Appraisal (PRA) was first tried out in Kenya in 1986 as a further development of Rapid Rural Appraisal (RRA) (Lelo and al, 1999). It was used to generate critical awareness, explore particular issues or problems and initiate community involvement in the planning, monitoring and evaluation of projects and programmes. Participation was first introduced into the health sector in Kenya in 1979 as part of the Alma Ata Declaration to which Kenya was a participant and signatory (WHO, 1978), although there was a big gap between signing and implementing (Cornwall and Pratt, 2003). In the health sector community participation was introduced in line with the WHO concept of Community Involvement in Health (CIH) (WHO, 1985).

In the mid-1990s another approach focussing on health and nutrition was developed in Kenya and named PANS. This process tried to strengthen the identified weaknesses of PRA by building on local knowledge and experience and by combining methods to achieve participation by all the different stakeholders in analysis, planning, implementation and evaluation of health and nutrition interventions. Some of the methods used in PANS have been adopted from the following approaches: survey methods; Participatory Rural Appraisal; Rapid Appraisal Procedures; and Participatory Evaluation and Action Research. One new step advocated by PANS was "social marketing", a process of dialogue and consensus building between the community and technical officers prior to data collection and intervention. In my experience this step is crucial for the individual and community's participation, their common understanding of issues of importance for development and their subsequent gaining of empowerment. This approach has proved successful on a micro level (GOK/Danida, 2000) but there is still a need to see if the quality of the process can be maintained on a larger scale.

4.4.1 The Participatory Approach to Nutrition Security (PANS)

The PANS process used for this field study is similar to the Participatory Learning and Action (PLA) approach described by Pretty *et al* (1995) and consists of the eight steps shown in figure 4.3. This process was developed due to some degree of

frustration at the failure of centre-based treatment of severely malnourished children in Phase I and the first part of Phase II of the CBNP. However, malnutrition, and especially the mild and chronic forms, is not easily recognised as a problem by local communities, especially when the prevalence of this condition is high. Malnutrition then becomes normality (Shrimpton, 1995). Consequently, it was important to develop a dialogue with the community to ensure a common understanding of health and nutritional issues and ensure consensus building for supporting effective intervention which was the novelty of the PANS approach.

The first step of the PANS process was a baseline survey using cluster sampling and a sample size that aimed to detect a certain amount of change in Z-score or percentage of children below a z score for height for age, weight-for-height or weight-for-age. Structured questionnaires were developed and later revised for application by local facilitators who were trained for this purpose. The second step was social marketing. The result of the baseline survey was, through dialogue between relevant GoK staff, politicians and the community, explained and acted upon if and when found necessary. The emerging dialogue between and within groups of stakeholders usually resulted in an agreement, which involved commitment for action from formal and non-formal leaders and the communities themselves. Step three ensured consensus building through a developed common knowledge and problem understanding between insiders and outsiders. The fourth step was data gathering by the community assisted by trained local facilitators and, sometimes, GoK technical staff. Visualisation techniques and tools were used to collect different types of data. For example, spatial data such as maps (e.g. social map, resource map and farm sketch); time related data (e.g. time line, trend line, seasonal calendar and transect walk); institutional analysis (e.g Venn diagram); and, lastly, gender analysis assessing access to and control over resources by women and me. Through step five the problems contributing to malnutrition and poor health were identified and prioritised by the community. Step six involved the development of the community action plan through a planning dialogue between the community, the GoK technical staff and other relevant stakeholders.

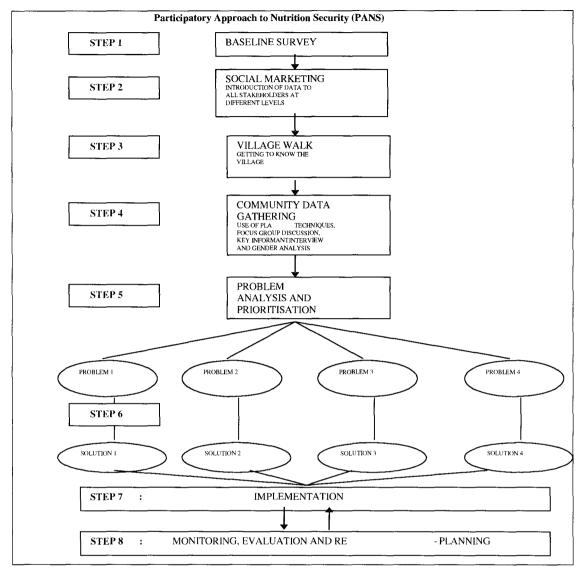


Figure 4.3: The 8-steps in the Participatory Approach to Nutrition Security (PANS) process.

Technically sound, realistic and affordable solutions for implementation, including a budget and a timeline, were drawn up and a facilitation/supervisory inter-sectorial team, called the PANS team, were formed. *Step seven* was implementation, including setting up committees and electing resource people. After lengthy discussions the communities reached a consensus on the use of behaviour change communication strategies such as Participatory Educational Theatre which draws on the development theories of Augusto Boal (1992) and was adapted for use in Kenya by Lenin Ogolla (1997). The community also decided that children should be included in the activities to reduce malnutrition. This led to children and youth both in and out of school participating in an approach to health development and

empowerment known as Child-to-Child (http://www.child-to-child.org/ accessed the 20th of January, 2006).

What the communities were unable to do for/by themselves was referred to service providers from the GoK systems, such as health, education, water and sanitation and social services. The total implementation phase was on average 3-5 years and during this phase no cash or in kind hand-outs, such as food supplements, were given. Step eight was monitoring, evaluation and re-planning, which was done partly by the community itself and partly by the selected PANS team. The CBNP furthermore encouraged the community to form a village development committee (VDC), which would be responsible overall for the implementation of development activities in a particular village. This committee could, if necessary, elect sub-committees responsible for health, water and sanitation, growth monitoring, income generation and other relevant issues. The PANS teams were, during the scaling-up phase, renamed divisional and district PANS teams. Initially these teams consisted of a mix of community representatives, GoK staff and NGO representatives. However, over time they came to exist only of GoK staff from different technical ministries. The PANS process has, since it's testing, been modified to include a community selfassessment of vulnerable groups, such as women and children, thereby ensuring their involvement in the whole cycle. The revised PANS process is currently being scaled-up from 4 to 14 districts over a period of five years (2000 to 2005).

4.4.2 The experience with the PANS approach

The PANS approach was first implemented in Makueni District, Eastern Province of Kenya from 1995 until 1997 and thereafter replicated in two additional districts, Mbeere in Eastern province and Busia in Western province. The implementation of the PANS process in Kwale district was part of a larger up-scaling using GoK structures.

The PANS approach was evaluated 4 years after the start for possible process and outcome change in nutrition status. Both baseline and follow-up assessments were done among children aged 12-60 months in 2 sublocations in Makueni Districts. These sublocations were divided according to (a) not involved in a community based nutrition programme (non-intervention) (b) involved in a community based nutrition

programme (CBNP), and (c) involved in an intensively supervised community based nutrition programme (CBNP+). The results showed that the nutritional status of the 3 communities was similar at baseline.

After 4 years the mean Z scores for height/age (HAZ), weight/age (WAZ) and weight/height (WHZ) in the NI community were similar to those at baseline. By contrast, after 4 years there was better nutrition in the CBNP intervention communities for HAZ (p< 0.005) and WAZ (p<0.02). There was no extra benefit from intensive supervision of the different intervention communities. The implementation cost was calculated to be between US\$ 0.6-9 per person per year during a 4 years implementation period. Furthermore, at least 30% of the community participated actively in the PANS process. The conclusion was that significant improvements in stunting and underweight were achieved, no additional benefits were achieved by more intensive supervision (CBNP, 2005).

A process evaluation showed that the PANS process had contributed to a "spill-over" effect of PANS activities in all adjacent sublocations. Up to 40% of all water well were now protected and community members had knowledge and skills of how to prevent and treat simple diseases contributing to malnutrition, farmers knew how to grow more appropriate food crops and caregivers knew how to prepare a balanced diet. Due to the gender training, Child-to-Child and Participatory Education Theatre women had now more time for child care and their representation in development committees had increased. The evaluation found that equal representation, access and control of resources were important for improving nutrition (Cornwall and Sellers, 1997). The conclusion of the evaluation was that the Government of Kenya's Social Services Department would use the PANS approach in a revised version and scale it up during a period of 5-10 years (2000 to 2005) to cover all the 13 districts where nutrition centres were existing.

4.5 Summary and conclusion

It has been shown that Kenya is a low-income country placed in Sub-Saharan Africa with a vast diversity in its topographical, climatic, demographic and ethnic distribution. The chapter highlights the importance of understanding and using the

GoK and the health administrative structures for implementing health, nutrition and research programmes. Both the Community Based Nutrition Programme and this study have strictly adhered to and respected this system. Lastly, the Participatory Approach to Nutrition Security is explained as an eight-step process and the successful outcomes of the CBNP pilot testing documented.

PART III: THE FIELD STUDY

Introduction

Part III presents the context and methodology for the field study and addresses the second research question: "How can people's participation and empowerment in a health development programme be assessed?" This part comprises three chapters. Chapter five states the field context and explores methodological issues and the paradigm advances that influenced the choice of the research design. Chapter six describes the pilot study which aims to develop tools for assessing participation and empowerment. Chapter seven describes the methods used for the follow-up study. Detailed information is provided about community entry, the selection and training of the research team and the reporting involved prior, during and after the pilot and follow-up study.

CHAPTER 5 METHODOLOGY

This chapter is divided into two parts. Firstly, the study context, Kwale district in Kenya, is described. Thereafter the chapter addresses research question 2, "how can people's participation in a health development programme be assessed?" from a paradigmatic point of view. The overall approach leading up to the field work is outlined and lastly the chapter provides a framework for the mixed methods approach used for this field study.

5.1 The field study context (Kwale district)

Kwale district is one of the seven districts in Coast province. It borders Taita Taveta district to the west, Kilifi district to the northwest, Mombasa and the Indian Ocean to the east and the Republic of Tanzania to the south. The district is located in the southeast corner of Kenya and has an area of 8,260 km² of which 62 km² is under water (figure 6.1). Kwale district is divided into five administrative divisions (Matuga, Kubo, Msambweni, Kinango and Samburu) and there are 37 locations and 86 sublocations in the district. The settlement pattern shows that there are high population densities in Matuga, Msambweni and part of Kubo divisions where the potential for agricultural production is high. This is in contrast to the dry rangeland in the hinterland where the main income is from livestock and wildlife husbandry (GoK, 2002a).

There are six larger towns in the district contributing to 16% of the total population of 536,381 people. The female to male ratio is 100:94 and the dependency ratio is 100:97. Matuga division, where the main field study was conducted, has the highest population density with 215 people per km² (GoK, 2002a). The breakdown of the socio-economic and demographic indicators, both national and for Kwale district, are shown in appendix 5. The main causes of morbidity are shown in appendix 6. It can be seen that 50% of morbidity is caused by malaria and respiratory tract infections.

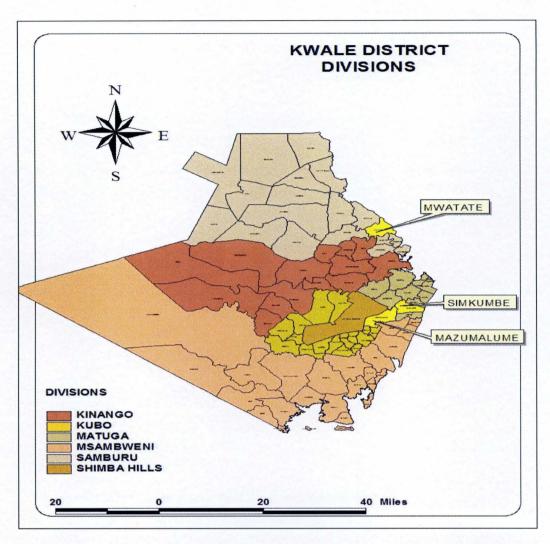


Figure 5.1: Map showing Kwale district, the pilot sublocation (Mwatate), the intervention sublocation (Mazumalume) and the non-intervention sublocation (Simkumbe).

Kwale district development plan (2002-2008), entitled "Effective management for sustainable economic growth and poverty reduction" (GoK, 2002a) sets the short-term priorities for the district and is a powerful tool for planning health and nutrition activities. The plan stresses stakeholder participation and devolution of power and includes the different sectorial master plans and their suggested indicators that are supposed to spark growth and development. The Community Based Nutrition Programme's activities in Kwale district, described in section 5.2, are part of this plan and, together with the outcomes of this study, will hopefully contribute to the overall development of the district.

Both the pilot and the main field study area were located in Kwale district. The pilot study was in Mwatate sublocation in Samburu division while the main study areas comprised Mazumalume (intervention) and Simkumbe (non-intervention) sublocations, both in Matuga division (see detailed map in figure 5.1). Mazumalume sublocation was chosen as the intervention sublocation because it was the first CBNP intervention area in Kwale district where the PANS process was introduced in 1998.

Mazumalume sublocation has seven villages (see table 5.1) and, according to the 1999 population census, a total population of 4,321 (2,107 males and 2,214 females in 779 households) (GoK, 1999c). The major ethnic subgroups are the Digo and the Duruma originating from the main Mijikenda ethnic group (the Makaya people). This group consists of nine small Bantu ethnic groups¹⁵ that have a similar background and settled along the coast of East Africa between the 15th to 19th centuries. Only the Digo ethnic group (over 90% of the population in Kwale) is Muslim while the other groups are mainly Christians. However, all are known to have strong socio-cultural traditions, including the use of traditional healers and witchcraft (Mwandime, 1995). For example, the causes of malnutrition are believed to be spirits related to intra-household factors such as the unfaithfulness of one of the parents or an "evil eye" of a relative or a neighbour.

District:	Division:	Location:	Sublocation:	Village:
Kwale	Samburu	Mwatate	Pilot: Mwatate	Mwangane
	Matuga	Tsimba	Intervention: Mazumalume	Tingeti, Mazumalume, Dima, Mbegani, Mwynanyati, Jorori, Msulwa* (n/a)
		Tiwi	Non- intervention: Simkumbe	Magodzoni, Mwamivi, Muungano, Mwamlongo, Simkumbe, Chai, Pongwe, Chikola, Kirudi, Maweni

Table 5.1:Villages in the pilot, intervention and non-intervention areas, and the GoK administrative structure. *Msulwa village was not included in this study as no PANS intervention had taken place here.

The non-intervention area for the main study was Simkumbe sublocation in Tiwi location of Matuga division (se figure 5.1). This area has ten villages (see table 5.1) and according to the 1999 population census a total population of 9,283 (4,651 males and 4,632 females in 1,804 households) (GoK, 1999c).

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¹⁵ These ethnic groups include the Digos, the Durumas, the Ribes, the Giriamas, the Chonyis, the waRabai, waKambe, waLibanas and the Kaumas.

To match the intervention sublocation as closely as possible with the non-intervention sublocation, this area was selected through a process that involved a secondary data review and interviews with GoK staff and NGO staff and community resource people to ensure that geographical location, socio-cultural norms and economic characteristics were similar. However, due to the financial and time limits of this field study the non-intervention area could not be too far away from the intervention area.

It was impossible to be sure that the health and nutrition intervention messages from the intervention sublocation had not spread to the non-intervention area ("spill over effect") as these two areas were geographically next to each other. However, the villages in the intervention area were clearly separated from the villages of the non-intervention area. Both sublocations were ethnically diverse and both had their own shopping centres and dispensaries. Lastly, important transport routes between the two sublocations were missing and so the intervention community of Mazumalume had no specific reasons to visit or pass the non-intervention sublocation of Simkumbe.

5.1.2 The PANS intervention in Kwale district

The PANS intervention assessed in Kwale started in 1998 and followed the diagram presented in figure 4.3. In short, the baseline survey was done between 1995 and 1996, the training of the PANS team took place in May-June 1998, the social marketing of the baseline results from district to sublocational level (Mazumalume sublocation) was done by the PANS team during autumn 1998 and data gathering started, and was finalised, mid-1999. However, due to a shift in program management between 1998, only around 50 to 75% of the community action plan was implemented and one revision of the community action plan was done in 2002 (personal communication, District Social Development Officer, Kwale and member of the Village Development Committee).

The CBNP acknowledged and used the GoK administrative structure (see figure 4.2) during part of or the whole PANS process, which included, but was not necessarily limited to, social marketing of the baseline results and later the dissemination of

information and data through *barazas*¹⁶. However, the community realised, through the data collection and action plan, that it was necessary for them to have a democratic, elected structure to oversee the implementation of their own action plan. Therefore a village development committee consisting of both men and women was formed, which in reality was parallel to the existing GoK structure and covered the whole sublocation.

5.2 Methodological issues

Central to this thesis are the current paradigms of health development. Thomas Kuhn has defined a paradigm as the set of standards to which practitioners can always refer. He was convinced that natural science did not possess any better answer than sociology to "what is knowledge" (ontology) as well as to the relationship between "the knower and what is known" (epistemology) (Kuhn, 1970). Crotty (2004) has recently defined ontology as "what is" and epistemology as "what it means to know", but has also stated that writers in research literature have trouble keeping ontology and epistemology apart conceptually.

Kuhn's definition of ontology and epistemology was further developed by Barker (1996) who stated that a paradigm is a set of rules and regulations (written or unwritten) that establishes or defines boundaries and tells us how to behave inside these boundaries in order to be successful. Paradigms become major factors affecting innovation and change, especially when a society is confronted with social injustice and survival. A paradigm shift is therefore a major change in thinking towards a new paradigm with new rules, boundaries and behaviour. The success of a paradigm is measured by its ability to solve increasingly difficult problems. Paradigms are born all the time, but the length of their lifespan depends on their ongoing problem solving ability and their complexity.

5.2.1 Educational research in health development

Educational research in health development presents, methodologically speaking, a special case since it bridges the two ways of knowing (quantitative and qualitative), combining approaches from both medical and social sciences (Oakley, 2000, p.5).

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¹⁶ A *Baraza* is a community meeting called by the local leaders, such as the sub-chief or the chief

Early on, quantitative approaches were deemed "hard" or "masculine" (Zelditch, 1962). However, critiques of these approaches and their paradigm during the 1960s and 1970s placed emphasis on science's lack of social relations and power structure, in line with the thinking of domination-subordination. In contrast, Bryman (1988) suggests that one reason for the emergence of the "qualitative" or "feminine" approaches was the widespread dissatisfaction with the "quantitative" paradigm. This critical stream of thinking was fuelled by the arrival in the late 1960s of the feminist social movement, which infiltrated academia and also had a great influence on methodologies.

Howe (1988) was one of the first authors to defend the simultaneous use of different paradigms on the basis of "pragmatism", stating that quantitative and qualitative approaches are compatible. This claim was later pursued by proponents of mixed methods who argued that research is influenced by the values of the investigator, the theory that the investigator uses, the nature of reality and how this reality is constructed (Teddlie and Tashakkori, 2003). Mixed method designs have since developed due to their many advantages. The first advantage is that they can answer questions that other single method designs cannot. Secondly, they provide better inferences and opportunities for presenting a greater diversity of divergent views. Lastly, they allow the researcher to simultaneously answer confirmatory (usually quantitative) and exploratory (usually qualitative) questions. In this way they can verify and generate theory in the same study (Teddlie and Tashakkori, 2003). Moreover, authors such as Johnson and Turner (2003) have postulated that using mixed methods can offset the disadvantages that certain well-known quantitative and qualitative methods have by themselves (e.g. one method might give breadth while another method might give depth). This is the reason that mixed methods designs became the preferred analytical work model for international donors and the WB in their poverty assessment during the later 1990's (Carvalha and White, 1997; Booth et al., 1998).

Researchers have long held at least six different positions on the issue of how paradigms can used in mixed methods. I will describe four of them, which I find relevant to this study. The first, the "a-paradigmatic stance", is often applied in field studies such as evaluation and health research. This stance is based on Patton's

writing (1990) who contends that in the real world, methods can be separated from the epistemology out of which they emerged. The second position, the "single paradigm/methodology link", was first described by Lincoln and Guba (1985) who equated post-positivism with quantitative methods, and constructivism with qualitative methods. As both the qualitative and quantitative positions had their own epistemologies, scholars using mixed methods began looking for a paradigm to support their methodology and the third position therefore emerged – "pragmatism".

Several authors have since argued that the use and relevance of the pragmatic paradigm, with its mixed method approach, is superior in evaluation research and in social and behavioural science (Rallis and Rossman, 2003). Later, and as the fourth position, Mertens (1998; 1999) has discussed the "transformative-emancipatory" paradigm as a philosophical underpinning for mixed methods. She contends that this paradigm describes reality within its multiple contexts and argues for a more just and democratic society as the ultimate goal for conducting research. This paradigm gives central importance to the individuals who suffer discrimination or oppression, while being aware of power differentials in the context of the research.

As a researcher in the real world I have my doubts that the last interpretation will include the diversity of perceived reality in which field research is conducted. This field study will therefore take the pragmatic stance Furthermore, the research questions are considered to be more important than either the method used or the paradigm underlying these methods. Pragmatism avoids the use of metaphysical concepts (e.g. "the truth", "reality") that have caused endless discussion and debate (Howe, 1988) and therefore presents a very practical and applied research philosophy. Teddlie and Tashakkori (2003) put it simply when they say, "study what interests and is of value to you, study it in the different ways that you deem appropriate and utilise the results in ways that can bring about positive consequences within your value system".

5.2.2 Moving from positivism to post-positivism – personal reflections

My decision to move from a positivist to a post-positivist stand and, later, to a pragmatic stand in relation to the present research, is based on the fact that I am not only studying objective verified measures but also social phenomena and processes. I

am studying definitions and knowledge, which have emerged from the field experiences, while still acknowledging the need for and use of objective data in the area of health and nutrition. During this field study I have been an active nonparticipant observer and studied participation where stakeholders' views, opinions and interpretations of their own reality were encouraged. The great weakness I find in the positivist stand in relation to my research work has been that "I did not know what I did not know" and, therefore, at first tended to "rush in" without realising, respecting and understanding the complexity of the situation. However, what I have learned to take with me when moving my paradigmatic position was the need for rigour, systems and principles, both in the sense of following agreed practices and in having sensitivity to ethical principles and implications. It was about introducing rigour into all aspects of enquiry so that I achieved a justifiable trustworthiness in my findings and written accounts (Robson, 1993). The ethical principles and the complexity of my research were the main factors that have pushed me ahead. As a researcher I had to follow accepted ethical norms both within my field of research and according to the culture in which I worked.

In medicine, the ethic injunction has been "do no harm". Even a minimalist injunction such as this could make the best researcher fearful, as we are usually unable to gauge, let alone control, the potential consequences – good or bad – of our research (Gibbon, 1999). However, interpretation has to go beyond just citing the experiences in the real world and making connections, it has to use the theory to make sense of the experience as the reality and theory is based on assumptions/paradigms. During my own life journey, which includes writing this PhD thesis, my view on society and human beings has broadened compared to that depicted by my earlier modernist way of thinking and doing. The socio-cultural, political and economic aspects of life and their interconnection have become increasingly important. I have come to see the world of hegemony in which health science and feminism exist and this has pushed me to an extreme in an effort to make my voice heard.

5.2.3 Paradigms and the Participatory Approach to Nutrition Security process

I have chosen to work with participatory methods both as a topic for exploring an educational process in the health development sector and as a focus for my future writing and practical work. However, before discussing the PANS process in relation to paradigms I want to stress the importance of knowing the assumptions on which the PANS process was based and developed. As discussed and elaborated in Chapter 2, the use of visualisation methods in the PANS process was an important feature combining sharing with attitude and behavioural change.

Kane (2000), supported by Cohen and Manion (1998, p.11), contends that the very fact that certain methods are chosen and used is concerned with people's attitude and behaviour. Unless we put methods in their theoretical context we will aggravate the trend for practitioners to use them for their own sake, usually with little understanding of the power of the various methods and 'how to' and 'who' should adopt them. Kane goes on to define "non-rational" behaviour as behaviour that is so entrenched in our culture and daily life that we do not even question the value base ¹⁷. Non-rational behaviour is established by means outside the realm of science and exists in any society as assumptions based on the major cultural belief systems. However, non-rational behaviour has a practical impact on our every-day life and is important for participation and the PANS process examined in this thesis.

The PANS practitioners do not think in terms of paradigms which raise the question of whether a method can be used effectively if the practitioner using it does not understand the assumptions on which it rests. According to Patton this is possible because in the real world methods can be separated from the theoretical background out of which they emerge. I will argue that if PANS practitioners use techniques while not really knowing *why* they do, *what* they do and *when* they do it; having attached a rigid and narrow approach to what they have been taught, PANS will be limited to a mechanical exercise.

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¹⁷ Kane gives examples such as: 'God is a loving father', 'the dog is man's best friend' and 'women are more emotional than men'.

On the other hand, not discussing paradigmatic issues can lead the practitioner to believe that their methods and assumptions are based on some universal truth. Taking the stand that PANS does not need theory therefore means that the assumption on which it is based remains unexamined (Kane, 2000, p.18) or that we are encouraging the use of PANS in an unreflective and uncritical way without an interest in the deeper understanding of the why, what, when, where, who and how. As Bernstein (1974) puts it, overlooking the assumptions of structures of meanings (and their history) can impose and define situations, meaning, power and control upon other participants.

There is a growing trend towards accepting mixing methods in evaluation whilst assuming and realising that paradigm distinctions are necessary and real (Kane, 2000). However, few health and development programmes have in any systematic way tried to assess whether this can happen and which factors are important for the process to succeed (Nutbeam, 1998).

	Typology of quantitative, qualitative and mixed methods:							
Terms	Typology used in quantitative research	Typology used in qualitative research	Typology used in mixed methods research					
Validity	Internal	Credibility	Inference quality: The accuracy with which we have drawn both our inductivity and our deductivity derived conclusions from the study					
	External	Transferability	Inference Transferability, which can be sub-divided into: a) ecological transferability:					

Table 5.2: Typology of mixed methods compared to terms used in quantitative and qualitative research methods (adapted from(Tashakkori and Teddlie, 2003).

This study will use a mixed methods approach that combines qualitative and quantitative methods to extract the most valuable and useful features of each.

However, using mixed methods requires its own typology as the actual diversity in mixed method studies is far greater than any typology can adequately encompass (Maxwell, 2003). The best one can expect is to adopt a typology that includes the criteria most important to the individual researcher. Table 5.2 presents such a typology and describes how typology terms change according to types of research (i.e. quantitative, qualitative and mixed methods).

5.2.4 Research design and process

The paradigmatic foundation and use of mixed methods are still in an early phase of development. However, experience has shown that there are certain design criteria that are important for its implementation. These criteria are the sequence in which data are collected and the priority assigned to one orientation or the other (dominant, less dominant) (Morse, 1991; Morgan, 1998; Morse, 2003). Creswell (2002; 2003b) further adds the stage of integration and the theoretical perspective. Figure 5.1 shows some of these criteria inserted in the design model of this field study. This model is further explained in section 5.3.5.

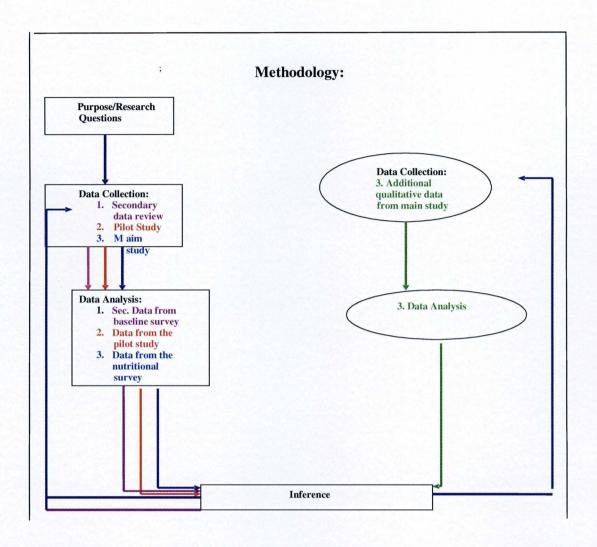


Figure 5.2: Sequential mixed methods research design for this study. Purple colour: Secondary data review, Red colour: Pilot study (mainly qualitative), Blue colour: Main study (mainly quantitative phase) and Green colour: Main study (mainly qualitative phase).

5.2.5 Organisation of the data collection

The data collection and analysis proceeded in four separate stages.

Stage 1: Secondary data review (addressing research questions 1-4, purple colour) The literature referring to participation, empowerment, effectiveness, mixed methods design and, specifically, the PANS process was reviewed. Special attention was given to the already conducted baseline and intervention studies relating to the PANS process.

Stage 2: Pilot phase (addressing research questions 1 and 2, red colour)

This phase was conducted to develop and field test participatory tools for operationalising and assessing the effectiveness of participation and empowerment in a health development process. The different phases that the pilot field study went through were: 1) developing the tools; 2) community entry; 3) selection and training the research team; 4) applying and verifying the tools; 5) re-applying the tools one year later (test for reliability and inference transferability (validity)); and 6) community exit.

Stage 3: Main phase (addressing research question 3, blue colour)

This phase was conducted to assess the nutritional status of children under 5 years of age in an intervention and a non-intervention sublocation of Kwale district in Kenya. This included a cross-sectional study using a structured questionnaire and assessing the weight and heights (or length) of all children under 5 years of age (anthropometry) and all adults present. This allowed calculation of wasting (WAZ), stunting (HAZ) and underweight (WHZ) for the children and body mass index for the adults. These figures were compared and contrasted with baseline data. Participation and empowerment from the PANS process were assessed using the tools developed during the pilot study.

Stage 4: Final phase (addressing research question 4, green colour)

This phase was conducted to explore what factors influence the outcomes of the health development process using the PANS process as a case study. Key informant interviews, semi-structured interviews, focus group discussions, observation and visualisation techniques were used among selected individuals and groups during the main study phase.

I have chosen to use a four-strand sequence (multi-strand) mixed methods research design for this study. This sequence can be described as an *exploratory* (steps 1 and 2, shown in purple colour and red colour on figure 4.1) followed by *explanatory* (step 3, shown in blue colour in figure 4.1) and lastly *exploratory* (step 4, shown in green colour in figure 4.1) design. To sum up, I collected qualitative data to explore and develop tools for assessing participation and empowerment, and then quantitative data were collected for assessing nutrition and health status after the use of the PANS process. Finally, qualitative data were collected to explain or elaborate

on the quantitative results. Table 5.3 summarises the research questions and the methods used to answer them.

Research Questions				Methods				
1. What does people's participation mean to different stakeholders from the community to the national and international levels?	1	2	3	4				
2. How can people's participation in a health development programme be assessed?	1	2	3	4				
3. What is the effectiveness of a participatory process in terms of health development?	1	2	3	5	6			
4. What factors influence the outcomes of the participatory process to health development?	1	2	3	4	5			

Key to methods:

- 1 = Literature review
- 2 = Key informants
- 3 = Semi-structured interview
- 4 = Matrix scoring (valuing) and spider diagram (measurement of areas) for different groups such as village (men and women), sublocational, divisional, district, provincial and central level (ranking/scoring)
- 5 = Observation
- 6 = Nutritional survey

Table 5.3: Summary of research questions and methods used for data collection.

5.3 Summary

The main field study area, Kwale district, is one of the poorest districts in the country and has high child morbidity and mortality rates as well as high levels of malnutrition. The population of this district is mainly of the Mjikenda ethnic group with Digo and Duruma sub-groups. Both groups have very strong socio-cultural belief and value systems. The two study areas (the intervention area comprising seven villages and non-intervention area comprising ten villages) and their administrative units are explained. The chapter argues for using a mixed methods design and a framework for this is outlined.

CHAPTER 6 A PILOT STUDY TO DEVELOP AND TRIAL METHODS AND TOOLS FOR ASSESSING PARTICIPATION AND EMPOWERMENT

The aim of the pilot study was to developing and testing methods and tools for data collection and analysis to assess participation and empowerment and address research question 2, "How can people's participation in a health development programme be assessed?" This aim was achieved in three steps. Firstly, by developing appropriate and culturally sensitive methods and tools for collecting and analysing data with and from the community on how much they had participated in a health development process. Secondly, by field testing these methods and tools to collect data and thirdly, by trialing the data analysis process to assess the effectiveness of participation and empowerment

6.1 Background and context

The selection of the pilot area was based on finding and selecting a health development programme that had used a participatory process that could be compared to the PANS process of CBNP. In addition, this pilot programme had to compare socio-economically, culturally and geographically with the main implementation area. After contacting and assessing several NGO-supported health development programmes in Kwale district, I decided to focus on the Aga Khan Foundation's (AKF) health development programme in Samburu division as this programme's approach was similar to the one of CBNP.

The pilot study was conducted between May and June 2001 and repeated in April 2002 in Mwangane village, Mwatate sublocation, Mwatate location of Samburu division in Kwale district. This village was selected for the pilot study because the AKF had used PRA for implementing a health programme here since 1989 and so it was an excellent place for developing and testing new tools for assessing the effectiveness of community participation and empowerment relating to health and social development interventions. Mwangane village was also chosen because it was geographically, culturally and socio-economically similar to the main intervention and field study area of Mazumalume sublocation, while still being a sufficient geographical distance away to avoid "contamination" and "spill-over effect". The

project process used for the pilot study was virtually identical to the PANS process. Furthermore, community goodwill was available. The geographical locations of the pilot and main intervention villages are shown in figure 5.1.

The aim of the AKF's project was to contribute to improved livelihoods in the communities of four locations of Kwale district by establishing village based institutions that could act as vehicles for improving livelihoods. The following eightstep process (table 6.1) was followed during the implementation of the AKF healthstrengthening project. These steps were developed from interviews with staff from the AKF, community health workers and villagers from Mwangane.

An outline of the activities in the pilot study is shown in appendix 7. The sampling frame for the pilot study included all the residents of Mwangane village which had a total population of 320. During the pilot study different people participated on different occasions. A research team was selected at the beginning of the field work during my introduction to the village and its development committee.

Steps	Description	Comments		
1	Initiation of the project.	Getting the idea and formulation of concept paper.		
2	Introduction of the project.	Presentation of the idea to the relevant beneficiaries, such as community to central level.		
3	Formation of committees from district to community level with the aim of developing income generating and savings club.	The community committees would then invite AKF and share experiences as well as plan for future interventions.		
4	Leadership training.	Selected villagers were trained for community data gathering.		
5	Participatory Rural Appraisal.	This included data collection by the villagers assisted by a facilitator from the AKF.		
6	Community Action Plan.	This included developing local structures, such as an elected Village Development Committee (VDC) and sub-committees in sectors such as health, education, micro-finance and water. This VDC was expected to register itself with the Department of Social Services and implement the agreed village development action plan, the outcome of the PRA process.		
7	Annual reflection	By, among others, the chairman and the subchief of the sublocation (and re-planning).		
8	Participatory monitoring and evaluation.	By all villagers and their selected committees.		

Table 6.1: The eight-steps process followed by the Aga Khan Health project.

The villagers were asked to select four males and four females who would be trained and would assist me in data collection and translation. The selection criteria used for choosing the research assistants were: 1) literacy; 2) able to speak both English and Duruma; and 3) available time for the pilot field study. After the selection of the research team, facilitators were trained in PRA principles and techniques. A detailed description of the training workshop is inserted as appendix 8.

In keeping with the participatory ethos used throughout this study it was important to take time and effort to ensure that men and women in the community, government officers at all tiers of the system and other practitioners were aware and informed about the research and had a chance to critique it and opt in. After lengthy discussion, the final pilot research team consisted of four Kenyans (two males and two females) and myself (a Caucasian white female).

		Characte	eristics of the 1	esearch tea	ım membe	rs	
Sub-team one				Sub-team two			
Male	Insider	Duruma, Kiswahili	Note-taker	Male	Outsider	Kiswahili English	Note- taker
- 1	0	English	and	Female	Insider	Duruma	and
Female	Outsider	Kiswahili English	Recorder			Kiswahili English	Recorde

Table 6.2: Characteristics of the research team of the pilot study.

This team was later sub-divided into two sub-teams each consisting of one male and one female of whom one was the facilitator and one was the recorder. My own role was to train and supervise the sub-teams The characteristics of the sub-teams are shown in table 6.2.

As language was important the research team consisted of two Duruma, Kiswahili and English speaking villagers, with similar socio-cultural and ethnic backgrounds to other villagers (insiders), and two Kiswahili and English speaking outsiders with different ethnic and socio-cultural backgrounds (outsiders). I communicated with the villagers in Kiswahili although at times this was inadequate as the local language was Duruma. The line of communication therefore either went from the insider (the selected villagers) \rightarrow the outsider (the Kenyan research assistants) to me, or directly

from the insider \rightarrow me when Kiswahili was used. This meant there was a need for double and back translation.

During the introduction and the village walk only the research team members were present. The pilot testing of the tools and methods included all villagers who had agreed to participate. Due to the late announcement of the community meeting (baraza), a total of only 30 people (6 men and 24 women), which was about 10% of the population, agreed to participate in the first exercise in the pilot study, and 32 (6 men and 26 females) in the second pilot exercise. The age of the participants ranged from 15 to 70 years old. There were two distinct religious groups in the village, Catholics and Muslims, and one major ethnic group, the Duruma.

6.2 Gaining access to the field

With consent from the GoK administrative system and through the AKF's health and social development projects, I accessed data, personnel and entry to the pilot area. Firstly, the research proposal was discussed with the relevant Kenyan authorities including the Commissioner for Social Services in the Ministry of Culture and Social Services and her staff at central, provincial, district and divisional levels. Secondly, the proposal was presented and discussed with an intersectorial team comprising the Ministry of Health, the Department of Social Services and a number of NGO-representatives from Kwale district and Coast province. Thirdly, introductions were made to the district commissioner and the medical officer of health for Kwale district, the district officer for Samburu division, the chief of Mwatate location and the subchief of Mwatate sublocation where Mwangane village is situated. Finally, I explained the purpose of the study to the Village Development Committee (VDC) and the villagers of Mwangane village during a village development meeting and, later, in a *baraza* called by the area subchief. During these last meetings I requested and was promised full cooperation from the community.

During the VDC meeting rewards and incentives were discussed with all participants. I made it clear that I was a self-sponsored student and not a donor. However, due to my ethnicity and status, the community expected some kind of remuneration. I therefore agreed with the village members that those villagers who

were research team members would have their expenses refunded and be paid a small allowance to compensate for their time. Furthermore, juice and bread would be served to the villagers during data collection. The process of withdrawing from the field was as important and laborious as the entry. Unfortunately, discussion of this crucial process is rarely included in research papers. Some of the important issues that emerged are therefore highlighted under limitations in section 6.6.

During the pilot phase I visited key NGOs and donors involved in health development in Mwangane village and Kwale district. The purpose of these visits was to define and test inference quality (validate by triangulation) of the health development process that had taken place in Mwangane village since the introduction of the AKF projects in 1998 and also prepare myself for the main field study. After the data collection the trained facilitators from the village became confident with all the tools for assessing participation and empowerment and wanted to use these for future assessments of development programmes within their village. In addition they decided to write, with my assistance, a proposal to several other donors. I am invited back by the villagers.

6.3 Assessing participation

The initial assessment of participation leading to empowerment and better nutrition involved three steps: (i) developing the tools for data collection (ii) using these tools to collect the data (iii) using the data to assess participation.

Step 1: Developing the tools for data collection

The tools for data collection were two matrixes based on the framework developed in figure 2.3 in section 2.1.1.

Firstly, a question was developed in relation to (i) each of the four prerequisites for participation (sharing, methods/approaches, behaviour/attitude and access to resources) and (ii) each of the four prerequisites for empowerment (institutional change, professional change, personal change and control over resources).

The four questions for assessing *participation* were:

Question 1: In which step, if any, did the methods you learned help you to participate in health development??

Question 2: Which step, if any, has mostly influenced your behaviour/attitude towards better health?

Question 3: Which step, if any, has mostly contributed to you sharing your health knowledge and skill in the community?

Question 4: Which step, if any, has been the most important for improving your access to resources contributing to better health?

The four questions for assessing *empowerment* were:

Question 5: Which step, if any, has contributed most to change for better health among the health professionals?

Question 6: Which step, if any, has contributed most to institutional change (mainly with reference to the Ministry of Health) for better health?

Question 7: Which step, if any, has contributed most to your personal change for better health?

Question 8: Which step, if any, has enabled you (the community) to control resources for better health outcomes?

Each set of four questions was translated into Kiswahili and then into Duruma, pretested in the pilot village and then back-translated to Kiswahili and English.

Pre-conditions for participation Steps	1. Methods Ouestion 1	2. Attitude/ Behaviour Question 2	3. Sharing <i>Question 3</i>	4. Access to resources <u>Ouestion 4</u>	Total score
1. Initiation					
2. Introduction					
3. Establish a Committee					
4. Leadership training				= 1	
5. Data collection					
6. Community Action Plan					
7. Annual reflection				. 7	
8. Part. Evaluation and re-planning					
Total score					

Table 6.3: Matrix for scoring participation.

Secondly, questions 1 to 4 were placed along the top of the matrix and the eightsteps of the participatory health development process (described in section 6.1, figure 6.1) were placed down the left had side as shown in figure 6.3. The matrix to assess empowerment was made in a similar way using questions 5 to 8 as shown in figure 6.4.

Pre-conditions for empowerment Steps	1. Personal change <i>Question 5</i>	2. Professional change Question 6	3. Institutional change <i>Question 7</i>	4. Control over resources	Total score
1. Initiation				Ouestion 8	
2. Introduction					
3. Establish a Committee	7.5				
4. Leadership training					
5. Data collection					
6. Community Action Plan			,		
7. Annual reflection					
8. Part. Evaluation and re-planning					
Total score		Commence of the contract of th			

Table 6.4: Matrix for scoring empowerment.

Step 2: Applying the tools in the field to collect the data

The data collection started with the drawing of village maps (resource map and social map) by the research team and a group of 12 villagers (see appendix 9). These maps were compared and validated (triangulated) with maps previously drawn by the villagers during the initiation of the AKF health project in 1998. Key informants, such as the traditional birth attendant, the community health worker and the traditional healer, were identified using the maps and then interviewed. The research team then did a transect walk through the village in order to verify the newly drawn map, but also to know the village, its men, women and children, the village life and to interview the identified key informants. For ease of planning, a checklist of places to visit and people to be interviewed was prepared prior to the transect walk.

The subchief and the village chairman then called for a *Baraza* (community meeting). The villagers were introduced to the research team who explained the purpose and use of the research, first in Kiswahili and then in Duruma. The villagers

were at this stage free to opt in, and they all did. The participants were then divided into three groups: a mixed gender group, a female group and a group of children¹⁸. It was impossible to get a male group due to the poor attendance rate of men. Each group was asked to answer the eight questions shown in section 6.3. Sixty stones were collected four times and the villagers were asked to give a score out of ten (non-proportional) for each of the eight steps in the matrix (table 6.3 and table 6.4) according to the felt importance each step had in contributing to their participation and/or empowerment in the health development activities. For the assessment of empowerment I decided to exclude the column referring to professional change, as no "health professionals" had been part of the pilot study. The community therefore only related to three of the four conditions of empowerment.

My tasks during this exercise were to observe and take notes. For the purpose of visualisation and calculation of an overall effectiveness score of participation and empowerment, the score for each step was transferred to the spokes of a spider diagram by the research facilitation team. Two of the diagrams are shown in figure 4.3 and all are further discussed in section 4.4, section 6.3.1 and shown in figure 6.3 to 6.6.

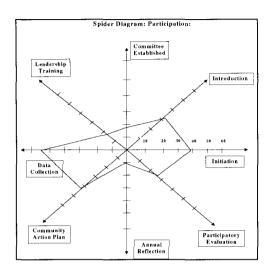
Step 3: Using the data collected to assess participation

To obtain a visual picture and a measure for participation, each score from the eight-step health development process was then transferred to a spoke on a spider diagram as shown in figure 6.1 (In this diagram each spoke corresponds to one of the steps in the health development process.). Once scoring was done, a visual picture of the degree (scope) of participation emerged and could be used for comparison with other spider diagrams. The depth of participation (referring to the different degrees of participation shown in the ladder of participation (appendix 3) emerged from the discussion, which took place during the scoring. To obtain a quantitative measure for participation and empowerment the area inside each spider diagram was calculated. This area was already divided into eight triangles by the nature of the spider.

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¹⁹ Each spoke was divided into ten units.

¹⁸ The children group was later excluded as their inclusion fell outside the scope of this PhD thesis.



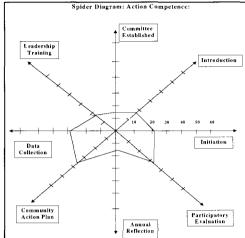


Figure 6.1: Participation and empowerment scores from the matrix transferred to the spider diagram. The area inside the spider shows a measure of participation and empowerment.

The following formula²⁰ for calculating the sum of the areas of these eight triangles was developed and used:

Areal =
$$\frac{\sqrt{2}}{4} [\mathbf{x}_1 \cdot \mathbf{x}_2 + \mathbf{x}_2 \cdot \mathbf{x}_3 + \mathbf{x}_3 \cdot \mathbf{x}_4 + \mathbf{x}_4 \cdot \mathbf{x}_5 + \mathbf{x}_5 \cdot \mathbf{x}_6 + \mathbf{x}_6 \cdot \mathbf{x}_7 + \mathbf{x}_7 \cdot \mathbf{x}_8 + \mathbf{x}_8 \cdot \mathbf{x}_1]$$

Areal measures the scope of participation and is the total sum area inside the spider diagram resulting from adding the sum of the eight triangles. "X" is the scored value from one of the steps in the health development process transferred to a spoke on the spider diagram. This formula proved valid, in so far as the steps in the health development process occurred in the same sequence.

6.4 Repeating the assessment process at a later date

The assessment of participation and empowerment was repeated in Mwangane village nine months later in order to test the inference quality and transferability (internal and external validity) and reliability of the methods used. The members of the two groups were not significantly different during the first and second

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²⁰ This formula was developed with the assistance of Dr. Svend Clausen, Statistician, Danish Technical University, Copenhagen, Denmark.

assessment. Data were recorded, transcribed and analysed to test the developed tools and identify their strength and weaknesses. Both qualitative and quantitative data analysis was done. The data obtained from observation and group discussions were categorised and analysed manually. The spider diagrams were analysed by comparing different groups as well as same groups over time. To increase the trustworthiness of the data, the data were triangulated across methods, facilitators and respondents.

6.5 Lessons learned

It was observed that the female group and the mixed gender group acted very differently during the first and second data collection in 2001 and 2002. During the first data collection the female group, mainly consisting of illiterate women from poorer households, was very slow in understanding the questions and scoring systems. The facilitators had to use local idioms for explaining the concepts and questions and probe extensively to get answers. However, after some time the interaction went more smoothly. Towards the end of the exercise, which took 2½ hours, the women got tired and had to pay attention to their children. The mixed sex group consisted mainly of village leaders and gatekeepers, for example the chairman of the village health sub-committee, a village health worker and a former village chairman. This group finished the exercise in 1½ hours and had only one problem with understanding the question relating to "methods". This problem was solved by the trained facilitators using pre-drawn pictures and text, giving explanations in Duruma and comparing difficult concepts with local idioms.

One interesting finding was that community members found it easier to understand the concept of empowerment than the concept of participation. This might have been due to the formulation of the questions as well as the explanation by the facilitators. Another interesting finding was that during the repeat assessment, the pattern between the female and the mixed sex group changed. The female group understood and responded easier, faster and with greater depth of detail than the mixed group. This was based on observations such as answers coming spontaneously, detailed justifications given for the scoring, the whole group participating actively and equally, and reaching consensus within a short time. Furthermore, the female group

finalised the exercise in half the time taken by the mixed group (one hour compared to two hours).

6.6 Limitations and concerns

There are a number of issues that need to be addressed in relation to data quality. The first is the issue of the *expectations* created by my presence as a researcher with a different ethnic status. From observations and interviews it was obvious that my Caucasian ethnicity created financial expectations based on past experience with donors (who are often of Caucasian origin). Moreover, the fact that I was introduced as a medical doctor created knowledge and power gaps between me and the community. I was aware of these expectations from the beginning and tried to discuss my position openly. However, the hospitality of the Kiswahili culture does not always allow for wishes and opinions to be expressed and accepted openly, especially for women. Women are seldom taken seriously if they try to assert themselves as this is against the socio-culturally constructed gender role.

The second issue is the presence of "gatekeepers". Among the group of trained facilitators were several gatekeepers who, through their status and gender, controlled my access to the community. This problem was solved by including a Duruma-speaking male outsider as part of the facilitation team, which eased my access and neutralised power relations between and within the facilitation team and myself.

Financial remuneration became another *ethical issue*. This research was a pilot testing of methods, tools and data analysis procedures, and as such it did not significantly benefit the community. Therefore direct expenses and allowances to the facilitators were paid in cash. However, this created financial expectations when the community data gathering began. I realised that it was difficult to take valuable time from community members without compensation, but I did not want to become trapped in exchanging data for money. After discussion with the facilitators I decided to compensate the community "in kind" for their time. This procedure worked well although I cannot exclude the possibility that this decision could have introduced bias by producing a non-representative sample of the villagers. The fact that I had

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²¹ Snacks and juice were provided

included children in the data collection process attracted parents. Unfortunately, I finally had to exclude the children from the study as their inclusion fell outside the scope of this thesis.

It was clear from the data collected that the whole health development process had been heavily dominated by the presence of the AKF project and its staff, and the villagers frequently echoed what was stated in reports from the AKF. This could have given some bias to the data, especially during the beginning of the scoring exercise.

Furthermore, some *minor issues e*merged. The involvement of males in the community was difficult. The number of males participating in this pilot study was significantly lower than the number of females. There could be at least two reasons for this bias. Firstly, this research was viewed as being concerned with health and community development. Such issues are in the Duruma and Kiswahili traditions viewed as women's affairs. Secondly, there were no major financial gains. The interviews during the village walk revealed that the men were mainly present when there were materials and/or financial gains. The *complex approach* and explanation of the concepts also proved difficult at times, but as the facilitators improved their skills these problems eased. *Double translation and back-translation* from English to Kiswahili and from Kiswahili to Duruma was at times necessary and could have introduced bias. However, every effort was made to avoid bias such as pre-testing the questionnaires and translation and back-translating.

An unforeseen issue emerged during the identification of the health development process. The two religious groups had different perceptions of who was doing what in the village and reaching consensus became a problem. The different views were therefore recorded and re-addressed during the following assessment of participation and empowerment and the different religious groups thereafter reached agreement. My own presence as a researcher from a different ethnic background and higher status was initially a problem; first and foremost because I was introduced as a medical doctor and not as a researcher. This meant that I was viewed according to my medical profession and its equivalent status, which could have biased the result.

6.7 Summary and conclusion

The first purpose of this pilot study was to develop appropriate and culturally sensitive methods and tools for collecting and analysing data with and from the community on how effective participation was in a health development process. The second purpose was to field test these methods and tools. This involved collection of data and trial the data analysis process to assess the effectiveness of participation and empowerment.

The pilot study developed a set of methods and tools and demonstrated that they were useful for involving community members in assessing the effectiveness of participation and empowerment. The study showed that with some modifications, such as having "relative scores" to ease the scoring process and make it more reliable, these methods and tools could be used in the main study. However, it is important to note that these tools have to be used and interpreted in the appropriate socio-cultural context and timing. My knowledge and understanding of both the Kenyan government's administrative system and the Kiswahili language proved invaluable for getting access to and being accepted by the community. But there was still a need for translation and back-translation to the local Duruma language.

What appears to come out of this pilot field study is that the tools developed for assessing the effectiveness of participation and empowerment are applicable for the main study with some modifications. This study endorses the findings of Pridmore and Lansdown (1997) concerning choices of methods. These must be determined primarily by the questions to be answered and the context in which they are applied. Therefore, careful attention needs to be paid to the precise wording of the instructions and questions used. The findings suggest that with some changes these tools could become a quick, cheap and easy way for the community, government, donors and NGOs alike, to assess stakeholder participation and empowerment in a health development process.

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²² By distributing the stones proportionally to show the relevance each step had to the community instead of having fixed numbers of stones in each cell when scoring.

CHAPTER 7: A STUDY TO APPLY THE ASSESSMENT TOOLS FOR PARTICIPATION AND EMPOWERMENT

This chapter describes the study design and methods used for data collection and analysis in the follow-up study. This chapter still addresses research question 3, "What is the effectiveness of a participatory process in terms of health development?" and is divided into design, sampling, the field methods, analysis and limitations. Challenges encountered in the field are acknowledged and summarised in the conclusion of the chapter.

7.1 The field study design

This study refers to the quantitative (left side area) and qualitative (right side area) part of the mixed methods research design showed in chapter 6, figure 6.3 and 6.4. It was not possible to randomly assign sub-locations to experimental and non-intervention groups because of time, sample size and cost. Therefore only one intervention and one non-intervention sub-location were selected.

	Baseline data (1995) by CBNP	PANS intervention in one sublocation (1998-2002)	Follow up data in 2002 by UNICEF	Assessment of PANS in 2003	
Sampling	Cluster		Cluster	Proportional random sampling	
Geographical area covered	15 km radius around Kwale town, which included the whole intervention and part of the non-intervention area	Only the intervention area	Only the intervention area (Tsimba location)	The intervention and the non-intervention area	
Intervention population (Mazumalume sub-location)	V	V	√	V	
Non- intervention population (Simkumbe sub-location)	V			√	

Table 7.1: "Before and after" study design, showing data availability.

Even if randomisation would have been done, the likelihood of bias due to interference of the "real world" (called "noise") would have been very high. Although sacrificing a randomised controlled trial meant that this design lost some internal validity and reliability it also gained external validity and reduced reactivity. The design involved one independent variable, the presence or absence of the PANS process, and one dependent variable, the outcome of the PANS process. Table 7.1 shows the different data collected over time. These were the baseline data from 1995, the UNICEF's follow up data from 2001, and finally the impact data from this main field study from 2003.

7.2 Assessing the effectiveness of the PANS process

The study took place in Mazumalume (I=intervention) and Simkumbe (NI=non-intervention) sub-locations of Kwale district and was conducted between May and December 2003. Mazumalume sub-location was chosen because the Participatory Approach to Nutrition Security (PANS) was introduced here in 1998 and had built up sufficient experience to be used as a vehicle for scaling up the PANS process to other areas of the district as well as other districts and was therefore ideal as a case study. Simkumbe sub-location (the non-intervention area) was chosen because secondary data²³ and interviews with relevant stakeholders²⁴ indicated that the two sub-locations were likely to have similar socio-economic, cultural and demographic characteristics. This field study assessed the implementation of the PANS process in these two sublocations by comparing the implementation of the PANS process in a pre-and post intervention model, and the intervention with a non-intervention area.

Before entering the community, it was important to train and work with a research team. In total there were 6 research assistants, 3 males and 3 females. They were selected using a similar process to that used during the pilot phase. All members of the research team had previous experience of field work and two had experience of implementing the PANS process and perform growth monitoring. The training

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²³ Secondary data were obtained from the district statistical officer but unfortunately a subdivision of the GoK administrative units (sub-locations) had taken place after the 1999 census in Kenya. Therefore only aggregated data from 2 sub-locations were available.

²⁴ CBNP programme staff, GoK staff from Kwale district and several community representatives from the main field study area, Matuga division.

curriculum for the research team, developed during the pilot field testing (see chapter 6), was expanded to include interview and observation techniques, as well as a short session on the PANS process. In addition, the research team helped to develop and pre-test the structured questionnaire and to collect the anthropometric data required. The trained research team acted as facilitators during the Barazas (community meeting), interviewers/note-takers during the application of the structured questionnaire, and non-participants observers during the focus group and group discussions. Two village research coordinators (one female and one male) were chosen from each village to assist with entry and data collection for each particular village.

7.2.1 Entry to and exit from the main study area

It is of utmost important to link into the GoK administrative structure when entering any community in Kenya. This involved an introduction to all the administrative levels of Kwale district over a period of 4 weeks in May and June 2003. Once this was done the subchiefs of Mazumalume (Intervention) and Simkumbe (Non-intervention) sublocations could introduce me and my research team to the village headmen and the communities of the two sublocations.

The community meetings thereafter took place in the form of Barazas. The first meeting, involving the whole sublocation, was used to explain the purpose of the main field study, how the community would be involved and to request for their cooperation. The community accepted to cooperate and opt in, and meeting-dates for each village were agreed upon with the chairmen representing the different villages. The community was then asked to draw their village on the ground using locally available material, and thereafter map all the households in their village (see appendix 10 and 11 showing all villages in the two sublocations and a village map of Tingeti village, Mazumalume sublocation). This was important, as the researcher was unable to get the exact number of households per village/sublocation from the district statistical officer.

This information was needed to draw a random sample of all households for the two sublocations. Moreover, this exercise was used to select a female and a male research coordinator from each village. These people were different from the research team.

Their role would be to inform and explain the selected households the purpose of the main field study and prepare the households for the interviews. This would involve ensuring the presence of the household members and re-scheduling and adjusting the interviews to cater for the household chores and duties. The selection criteria for the village research coordinators were: 1) knowledge of the village, 2) ability to communicate effectively, 3) problem solving and 4) pro-active attitudes. These research coordinators were compensated in kind and cash for their time. This system worked very well and only 8/361 (2.2%) household interviews had to be rescheduled. During the survey the selected households were visited. Due to the absenteeism of household's heads, the research team had to interview spouses/other household members in 53%. There was no difference between intervention (Mazumalume=53%) and the non-intervention (Simkumbe=52%).

As described in chapter 4, community exit was as important as community entry and happened in the reverse order of the entry. After data analysis, the results were given back to each village during a Baraza. These meetings were chaired by the subchiefs and village headmen. Personnel from the MoH and MCSS participated and ensured that the results would form the first step in the next health and nutrition planning session.

7.3 Ethical issues

Although I had obtained permission for this research from the Kenyan authorities²⁵, I found it important to have the consent of the respondents. A consent form was designed in English, translated into Kiswahili and back-translated to English. It was thereafter pre-tested simultaneously with the questionnaires (see appendix 1, 2, 12 and 13). This consent form was read prior to the application of the structured questionnaire, and each household and persons were invited to "opt in". Only one household did not "opt in" of the total sample of 361 households. This decision was based on religious ground as the selected household functioned as a Madarasa school and the members of the household could not accept a Christian (the main researcher) entering their house.

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²⁵ Research permit No. MOEST 13/001/30C 70, issued 12th of April, 2001.

7.4 Sampling and sampling frame for the nutritional survey

The sampling frame for the households to be interviewed consisted of all households

with children below five years of age in the two sub-locations. However, when the

sampling was done each sublocation was sampled separate. The intervention area

(Mazumalume) had 7 villages and the non-intervention area (Simkumbe) had 10

villages (see table 7.2 and appendix 10). Out of these 17 villages, one village in

Mazumalume, Msulwa village, was excluded as the PANS process had never been

implemented there.

The total sampling frame was therefore 16 villages and the total number of

households amounted to 2064. The sampling frame for the intervention sub-location

was 779 households (about 5,400 people) and for the non-intervention sub-location

1285 households (about 12,400 people). The range of households varied from 36 to

192 per village. A proportional randomised sampling of households was drawn from

each village according to the number of households located in each village from each

sublocation. This amount was counted from the village maps and validated by the

village resource persons during their village walk in preparation for the nutritional

survey. From the total number of households all houses with children under five

were marked and counted, and this number now constituted the final sampling frame

which amounted to 1100 households, of which 490 were was from the intervention

(Mazumalume) and 610 from the non-intervention (Simkumbe).

The unit of analysis was considered to be the household. To get an estimate of the

sample size the following formula was used (WHO, 1983):

 $N = 16 p (100-p)/W^2$

Where:

N= sample size

P = the percentage of malnourished children

W=width of confidence interval

This formula calculates the sample size for estimating a proportion with a 95%

confidence interval to estimate a value of 25% with a margin of error of +/- 5%. The

total calculated sample size was 300. This sample was proportionally distributed

between the intervention and non-intervention area, which gave a minimum sample

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size of 134 for the intervention and 166 for the non-intervention. I included 20% extra household in the sample size for each sublocation to compensate for possible drop-outs. A total of 167 households (34% of the sampling frame for Mazumalume sublocation (Intervention)) were selected in the intervention and 194 (32% of the sampling frame for Simkumbe sublocation (Non-intervention) in the non-intervention area to compensate for possible households being excluded (see table 6.2 for details).

Sub- location	Village	Total No. of HH	Total No. of HH with children under five	Total No. of HH interviewed	Total No. of children assessed
Interven-	Tingeti	104	80	26	46
tion	Mazumalume	153	79	27	42
(Mazuma	Dima	134	109	29	43
lume)	Mbegani	107	60	23	34
	Mwananyati	140	99	30	50
	Jorori	141	63	32	43
Sub-total		779	490	167	258
Non-	Magonzoni	192	112	26	46
interven-	Mwamivi	124	77	22	46
tion	Muungano	171	63	18	32
(Simkum-	Chai	175	87	13	18
be)	Simkumbe	141	61	20	30
	Mwamlongo	48	23	12	21
	Kirudi	138	69	30	49
	Pongwe	178	66	30	52
	Chikola	82	42	15	29
	Maweni	36	10	8	12
Subtotal		1285	610	194	335
TOTAL		2064	1100	361	593

Table 7.2: Sub-locations, villages and households chosen for the follow-up study from the total number of households with children under five years of age (sampling frame).

7.4.1 Sub-sample for qualitative analysis

Key informant interview, group discussion, focus group discussion and observation can be used to understand the "how" and the "why" of implementation. Key informant, focus group and group discussions are all part of semi-structured interviewing. While both these methods are well known and used in the health sector, focus group discussions have only recently been introduced and therefore deserve some explanation (see appendix 14).

Focus group discussions (FGD) originate from market research in the 1950s where it was used to identify people's opinion and feelings about certain products. A focus group is an organised (but flexibly structured) discussion involving six to ten participants and normally lasts about one hour. The purpose of the discussion is to collect information on a particular topic. A trained facilitator guides the focus group through a discussion about a selected topic, and a trained note taker records the details, such as who is talking and how many times. Focus group discussions have the advantage that they may stimulate the emergence of unexpected points. They have the potential to produce more information faster and, especially if the participants share a common interest, rich data may be collected as people stimulate each other.

Focus groups are generally less threatening for individuals as people can develop confidence in the group and the participants may enjoy the focus group discussion and gain from it. On the other hand group dynamics may disturb the process from the fact that some participants may dominate the group and others may be discouraged from contributing and/or disagreeing with the opinion of the majority. This is a possible source of bias.

While Kruger (1994) stresses that a FGD allows professionals to see reality from the client's point of view, Kitzinger (1995) states that FGDs can facilitate the discussion of taboo topics, which cannot be addressed in individual interviews. It is the researcher's task to handle group dynamics sensitively and maintain the balance between controlling the direction and allowing divergence. According to Kitzinger (1995) FGDs are particularly suited to study attitudes and experiences, to gain insight into people's thoughts and behaviour about health related issues, generate ideas, pretest educational material, improve products and examine how ideas develop and operate within a given cultural context. Therefore, FGDs are particularly helpful to this study.

Key informant interviews and focus groups discussions were conducted with persons and groups of importance for the field study. A list of the interviews done is shown in table 7.2 and the focus group discussion guide is shown in appendix 14. The key informants were selected based on their academic and practical knowledge of

participation and the PANS process. The participants for the focus group discussion were self-selected through information received via the subchiefs, the village chairmen, the village resource people and the village maps drawn.

A female and a male group each consisting of 12 people participated in the focus discussions conducted in the intervention sub-location. The other groups already existed due to the nature of the CBNP programme and its implementation structure, and had between 8 and 20 participants.

Person/group interviewed:	Kind of interview:	No. of people interviewed	Related to research question:
1. Prof. Robert Chambers	Key informant	1 (M)	1, 2 (a) and 2 (b)
2. Gill Gordon PLA consultant	Key informant	1 (F)	1, 2(a) and 2 (b)
Intervention sublocation			
3. Female group	Focus Group discussion with women	12 (F)	3 and 4
4. Male Group	Focus Group discussion with men	9 (M)	3 and 4
5. Mixed Group	Focus Group Discussion with men and women	6 (M), 3 (F)	
6. Group of Traditional Birth Attendants (TBA) and Community Health Workers (CHW)	Focus Group discussions with TBAs and CHWs	3 (M), 6 (F)	
7. Village Develop Committee (VDC=SLDC) elected by the community in year 2000 on behalf of CBNP	Focus Group Discussion	7 (M), 2 (F)	3 and 4
8. Dispensary Committee	Focus Group Discussion	3 (M), 3 (F)	3 and 4
9.Dispensary Nurse, Mazumalume Dispensary	Key informant	1 (M)	
10. Subchief	Key informant	1 (M)	
Non-intervention sublocat			
11. Magonzoni Dispensary Committee	Focus Group Discussion	9 (M), 3 (F)	3 and 4
12. Subchief Simkumbe	Key informant	1 (M)	
Others people/groups inte	rviewed at higher levels		. Like talkents en
13. Divisional PANS team	Focus Group Discussion	7 (M), 5 (F)	3 and 4
14. District PANS team	Focus Group Discussion	6 (M), 3 (F)	3 and 4
15. Headquarters staff	Key informant	2 (F)	3 and 4
Total	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	55 (M), 40 (F)	1

Table 7.3: List of people and groups interviewed for the field study (qualitative analysis).

As I found it important to have views on participation from other people/areas than the CBNP intervention area I interviewed the subchief and the dispensary committee from Simkumbe (Non-intervention) sub-location. The key informant interviews and the focus group discussion were conducted with the Headquarters (HQ) staff, divisional and district PANS team using English language, while other focus/group interviews were conducted in Kiswahili by one of the trained research team and supervised by me.

7.5 The field methods

The field methods, quantitative and qualitative, were focussed on assessing the outcome - and change, if any – after the use of the PANS process and exploring the process by which such a change – if any – had occurred. Secondly, factors contributing to such a change were examined. During the household survey and the collection of qualitative data, the research team members each carried a field notebook, which was used for recording their observations. The mixture of methods and use of the same tools, such as focus group discussion at different levels of the administrative systems, allowed cross-checking and validation of the data results. For example, data from the structured questionnaire and non-participant observation were cross-checked. Full use was also made of opportunities during Barazas and households visits for informal discussion and observation to help build up the context in which the PANS process intervention had taken place. The specific research tools are described in details in appendix 8-13. The assessment tools for participation and empowerment are described in chapter 4.

7.5.1 Structured questionnaire

A detailed structured questionnaire was developed to collect descriptive data from which the matching between the intervention and non-intervention areas could be assessed. This questionnaire included information on demographic, socio-economic and cultural issues of importance for the outcomes of the nutrition status. In addition, the questionnaire asked information of *length*²⁶/*height*²⁷ and weight of the household head and all spouses as well as all children under five years of age. All these

²⁶ children under 36 month.

²⁷ children between 36-60 month and adults.

measurements were done by the research team using appropriate instruments. The questionnaire was designed in English and then translated into Kiswahili and pretested in ten households close to Kwale town. The Kiswahili version was thereafter revised, pre-tested in another five households and back-translated into English (see appendix 13 and 14 for a copy of the final questionnaire in English and Kiswahili).

As much as it was practical and possible this questionnaire was applied by the same two trained field assistants to selected households in the intervention area. Two members of the research team applied a slightly modified questionnaire to households in the non-intervention sublocation. The modification included an extra question that would capture and assess any participatory health intervention that had taken place in the non-intervention sublocation. I closely supervised the application of the questionnaires and furthermore ensured that all the questions were asked and answered, and that all the questionnaires were completed. Care was taken to avoid inter-enumerator bias in the application of the questionnaires. Therefore, the members of the research team who previously had been involved in the PANS process were deployed in the non-intervention area.

The assessment tools for participation and empowerment were attached to the structured questionnaires, and only households who had actively participated in the PANS process were asked to respond to this section. The process of assessing participation and empowerment proved at first to be slow, but when the respondents grasped the concept of scoring and the facilitators got used to the tools, the process went easy and smooth and could be done in about 30 minutes. During the scoring, the respondents gave several valuable comments about the implementation of the PANS process. These were noted by the research team and the main researcher.

7.5.2 Anthropometry

All children under five years were assessed by measuring and recording their length/height using a locally constructed length board, and their *weight* using a Salter scale. A bathroom Salter scale was used for measuring the weight of adults, while a length-board was used both for the children and adults. All WHO and MoH

recommended procedures for growth monitoring were strictly followed²⁸. Each measurement was taken twice; thereafter the mean was calculated and used as the final measurement. For assessing and comparing the nutritional status of children and the body mass in the intervention compared to the non-intervention group it was important to calculate the Height for Age Z-score (HAZ), the Weight for Age Z-score (WAZ) and the Weight for Height Z-score (WHZ) for girls and boys and the Body Mass Index for adults.

The age of the child was noted from the growth monitoring cards if these were available, otherwise the mother/caretaker was asked to give an estimate the nearest month. As child welfare cards had been out of stock in Kwale district for more than one year my own assessment was that estimation of age happened in 80%. To assess the nutritional status of the adults, the height of the women and men were measured. The Body Mass Index²⁹ (BMI), independent of age and therefore more reliable, was calculated and used for comparing the intervention and non-intervention group.

7.5.3 The qualitative assessment

The FGDs in the main study took place in relevant settings, such as in the dispensary for the dispensary committees and under a tree in a central place in the village for the development committees. A guideline and pre-tested central questions were prepared prior to the event, in line with recommendations by Rifkin and Pridmore (2001) (see appendix 14). The timing of each discussion was agreed beforehand and each interview lasted between one and two hours. The discussion was tape-recorded and a non-participant observer took notes of all non-verbal interactions. The tape and notes were later transcribed and translated into English. This served as the basis for the data analysis of the qualitative data. Two of the interviews (13%) were back-translated from English to Kiswahili and compared with the original version to assess the trustworthiness of the translation.

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These included adjusting the Salter scales every morning, zeroing the scale before every measurement, ensuring that the children's legs were stretched before measuring the length, and that heads of children and adults were in a horizontal position.

²⁹ Body Mass Index is calculated by weight in kg divided by the height²

In addition two key informant interviews that took place prior to entering the field. A short interview schedule was developed and used and later the data emerging helped to explore the definition of participation.

7.5.4 Log book

A log book was used for collecting informal information during the whole process of research. This log book contained the primary record of the study, information about the development of the research questions, plans for investigation, information collected during the pilot and main field study process, thoughts, assumptions and ideas that came up as well as my own questions, views and feelings about the process of research. Furthermore, each research team assistant was given a log book to note verbatim expressions of the participants involved in the pilot and follow-up field study. These log books were later used to validate data and enhance the quality and amount of the data collected.

7.6 Data analysis

All data from the structured questionnaire were "cleaned" and entered into a laptop computer using both EPI-INFO and SPSS statistical programs. The EPI INFO statistical program (EPI-NUT) was used for the analysis of the anthropometric data, while SPSS statistical program was used for all other data entered during the field study (Rifkin and Pridmore, 2001). The unit of analysis was *one household* although for the anthropometric data it changed to *one person*. The qualitative data were transcribed using MS-Word and then transferred to Nvivo, a software package for qualitative analysis.

7.7 Limitations and concerns

7.7.1 Methodological issues

As previously mentioned I spoke English and Kiswahili during the field work. However, in some instances Kiswahili had to be translated and back-translated into Duruma and Digo ethnic languages in order to be understood by the respondents. The translation of "concepts" was at times difficult, especially when translating key concepts such as participation and empowerment. These difficulties were eased by

the research team assistants who explained concepts in vernacular and used local idioms and drawings and thereby simplifying issues. However, I cannot be sure that the quality of the data was not affected by language and translation problems.

The second challenge was time. The application of the questionnaire took at first nearly one hour. This was a long time to keep busy villagers, especially women, who in some cases had returned from working in their fields (shambas) just to be interviewed. As the field assistants got familiar with the questionnaire the application time went down to ½ hour, which was acceptable.

The third challenge was socio-cultural and ethical issues, such as religion, gender and consent. The main religion in the area was Islam and we had to respect and strictly adhere to women's role in this religion during the data collection process. For example, the dress code was important, such as wearing long sleeves and skirts below the knees. Addressing the community had to take place through the local religious leaders who were men. But only in one instance did these local customs cause significant problems.

Another challenge was concern over the possibilities of a "spill-over" effect of participation and empowerment from the intervention to the non-intervention sub-location. But this proved not to be a problem as there were no health development programmes in the non-intervention area (apart from GoK services). Participation and empowerment were therefore not assessed in the non-intervention area. The bias of using already trained PANS field workers was avoided by assigning these field workers to the non-intervention area and excluding them from the qualitative data gathering process in the intervention sublocation.

7.7.2 Exclusion criteria for data analysis

Some data had to be excluded from the study due to measurement errors and exclusion criteria. These were:

- 1) WAZ, HAZ and WHZ score $\geq +4$ or ≤ -6 (20 children excluded)
- 2) Body Mass Index (adults) ≥ 35 or ≤ 13 (1 adult excluded)
- 3) Pregnant women (24 women excluded)

These data only concerned the individual people and not the household as the unit of analysis was the person (child or adult). Data were also removed from the study when judged unreliable, when insufficient data were available or when the household did not opt into the study (15 households). In total 37 children (22 from the intervention and 15 from non-intervention sublocation) were excluded, which left 556 for analysis.

7.8 Summary and conclusion

The purpose of this chapter has been to describe the design and methods of the follow up field study conducted in the intervention (Mazumalume sublocation) and non-intervention (Simkumbe sublocation) area in Kwale district and the approach used for data analysis. The description of the field study addressed research question two, "How can people's participation in a health development programme be assessed?" Information has been provided on the methods used for data collection and statistical analysis. A mixed methods approach has been used, combining quantitative and qualitative methods, such as survey methods, key informant interviews and FGD and group discussions. The sampling frame, which was households with children under five years of age, and sample size, were calculated, and a random proportional sample of the selected households in the intervention and non-intervention sublocation was used for the field study. Data were collected through a structured questionnaire, and anthropometric assessment of children below five years of age and body mass assessment of adults in the intervention and a nonintervention sub-location were calculated. Thereafter interviews (questionnaires and FGD) were done with relevant stakeholders.

During the whole process of data collection, efforts were made to ensure quality and transferability as well as reliability of methods and data. Furthermore, ethical issues of importance for the study was discussed and, lastly, the possible sources of bias have been identified and addressed.

PART IV: FINDINGS FROM THE FOLLOW-UP STUDY

Introduction

Having addressed the theoretical and conceptual framework for assessing participation in Parts I - III, Part IV presents the Follow-up study findings and answers research question three, "What is the effectiveness of a participatory process in terms of health development?" and research question four, "What factors influence the outcome of the participatory process to health development?". As described in Part II and III, the effectiveness of the Participatory Approach to Nutrition Security (PANS) will be used to evaluate the health development intervention in Kwale district in Kenya. A multi-strand, mixed method design was suggested for this evaluation and health development will be assessed by comparing changes in nutritional status in an intervention group with a non-intervention group and comparing a pre-post intervention situation. The presence or absence of the intervention (the PANS process) will be the independent variable and the nutritional status of the household members, mainly children under five years, will be the dependent variable. Baseline data that was collected by CBNP in 1995 and by UNICEF in 2002 will also be used to assess any change over time (pre-and post intervention assessment).

Part IV is divided into two chapters. Chapter 8 answers research question three from a qualitative and quantitative point of view, while Chapter 9 describes the analysis of the qualitative data and presents the findings related to research question four.

CHAPTER 8: THE EFFECTIVENESS OF THE PARTICIPATORY APPROACH TO NUTRITION SECURITY (PANS) PROCESS

This chapter is divided into four sections. The first section presents data showing the matching of the intervention and the non-intervention sublocations. The second section describes the statistical analysis of survey data of the intervention sublocation, pre- and post- PANS intervention. This analysis forms the quantitative impact assessment of change. The qualitative assessment is presented in the third section and the last section summarises the findings.

8.1 Matching of the intervention and non-intervention groups

Data were collected to assess whether the intervention and non-intervention groups matched well. Table 8.1 presents a summary of the findings. For a detailed description see the tables in appendix 15. As shown in chapter 7 (table 7.2) the total sampling frame was 361 households (167 in the intervention and 194 in the non-intervention areas) which consisted of 593 children (258 in the intervention group and 335 in the non-intervention group). Considering the exclusion criteria described in section 7.7.2 and the decision to opt out, a total of 346 households with 556 children (236 in the intervention and 320 in the non-intervention sublocation) were left for analysis. Factors such as the gender and age of the head of household, ethnicity, and educational status of the members of the households were compared³⁰.

From the household data it can be seen that both the sexes and the number of children per households were well matched (Chi-square (χ^2) p .977) whilst the rest of the main indicators differed significantly between the intervention and non-intervention groups (χ^2 p \leq .05). The intervention group had a significantly lower mean age per household (37.4 years compared to 45.9 years), a more diverse range of ethnic groups (five different ethnic groups compared to only four groups) and more spouses under the permitted minimum age for marrying (18 years) (40.6% in the intervention compared to 21.5% in the non-intervention area). The main type of marriage in both sublocations was monogamous, which was followed by polygamous

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³⁰ For a full list of factors assessed and analysed, see the questionnaire in appendix 14.

marriage and then by widower. It is interesting to note that nearly 10% of all heads of household were widowers at the time of the survey (see appendix 15).

Other factors assessed were the educational status and the occupation of the household members, religion, access to water, sanitary and health services, type of health services, poverty factors and access to and knowledge about testing facilities for HIV/AIDS (known to affect the orphan status of the community). The educational status differed significantly between the two groups; the non-intervention group had a better educational status than the intervention area (χ^2 p .001). The proportion of heads of household who had never attended school was higher in the non-intervention area while the number of dropouts was significantly higher in the intervention area. When the dropouts and the people never attending schools were excluded, the two sublocations matched well (see appendix 15). The two groups were also diverse with regard to religion. While Islam was the main religion of both areas, only 65.7% of the intervention households were Muslims³¹ compared to 95.8% of the non-intervention population.

Access to water and sanitation facilities within the two sublocations also differed. The non-intervention area had better access to clean water than the intervention, although this pattern changed during the dry season. The two areas seemed well matched in the distribution of persons collecting water. In both areas it was predominantly the women who collected the water (91.1% in the intervention group compared to 87.9% in the non-intervention group), although in the non-intervention group children assisted in 4.2% of households. It took a significantly longer time to collect water in the intervention than in the non-intervention area, both in the dry and wet season (the mean time for dry season 61 vs. 25 minutes and for wet season, 19 vs. 12 minutes). The two areas were not well matched in the availability and use of toilets. While 53.2% of households in the non-intervention area had toilets, only 32.7% in the intervention area had a toilet; but the type of toilets³² matched well. Contrary to the availability of toilets, observation revealed that the households in the

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³¹ Other religions (e.g. Catholics and local religions) were more frequent in the intervention area (see appendix 18).

Either a pit latrine or a ventilated improved pit latrine.

intervention area were using their toilets more (93.1%) than in the non-intervention area (69.7%).

Households characteristics General information:	haracteristics (Mazumalume) (Simkumbe) General		Matching (Significance level) p value
Ethnic groups	Mainly Duruma	Mainly Digo	.000 (S)
C 1	6 ethnic groups	4 ethnic groups	, ,
Sex of head of HH	Mainly men (88%)	Mainly men (85%)	.977 (NS)
Age of head of HH	37.35 years (mean)	45.86 years (mean)	.000 (S)
Marital status ³³	More single	More polygamous and divorced	.018 (S)
Age of spouse when marrying	41% below 18 years	22% below 18 years	.001 (S)
No. of people per HH	6.0	7.5	.000 (S)
No. of children per HH	1.8	1.9	.325 (NS)
Religion	Mixed (Muslim, Catholics and others)	Mainly Muslim (82%)	.000 (S)
Education: Head of HH Wife:	Many drop outs and "not educated"	More "not educated" and only some "drop outs"	.000 (S)
	Many drop outs	More compl. Sec. school	
Water and Sanitation			
Water:	Men assist the women more in collecting water, significantly longer time to collect water	More safe water supply	.000 (S)
Sanitation	Better use of toilet	More toilet but same toilets as intervention	.000 (S)
Poverty	Own bigger acreage per HH Better maintaining of the houses	Better housing and more people permanent employed	.000 (S)
Health	Prefer GoK health services but simultaneously complain about GoK.	Better access to health services, but still self medication	.024 (S)
	Time to nearest health facility and ar	ny member of the HH sick	.309 (NS)
Orphan rate	4% (2.74/HH)	1.9% (1.87/HH)	.180 (NS)

Table 8.1: Result from matching data from the intervention and non-intervention sublocation.

Poverty factors, influencing health and nutritional status, were compared. These were: land (access and acreage), income (employment) and housing (material and maintenance). Firstly, access to and control over land was compared. The households in the non-intervention area owned more land (88.3%) than the households in the intervention area (60.3%), while other issues relating to land, such as squatters, were

³³ Nine percent widowers in each sublocation.

more prevalent in the intervention area. Acreages of land per household were significantly higher in the intervention area (6.88 acres) compared to the non-intervention area (4.49 acres). Housing and their maintenance showed that the houses in the non-intervention area were better both with regard to roofing (22.1% had iron sheet roofs compared to 10.1% in the intervention area) and walls (47.6% had brick walls compared to 7.1% in intervention area). However, the intervention households were better maintained. The main sources of income were compared, and permanent employment was more prominent in the non-intervention compared to the intervention area (33.7% compared to 11.9%). Casual labour (26.8% compared to 17.9%), business (18.5% compared to 7.9%), trading (14.9% compared to 8.4%) and selling of cash crops (10.1% compared to 1.6%) were higher in the intervention area (see appendix 15).

Table 8.1 and appendix 15 present the matching of health status in the two sublocations. As the HIV/AIDS epidemic is high and still rising in the district, households with orphans were considered more vulnerable and therefore more at potential risk of having children with malnutrition. The majority of households in both sublocations had heard about HIV/AIDS (97% and 98% respectively in the intervention and non-intervention sublocations). While 20% of the households in the non-intervention area had been offered HIV testing, only 4.8% had had this offer in the intervention area. The intervention area had higher number of orphans (4% compared to 1.9%) and higher number of orphans per household (2.74 compared to 1.87) than the non-intervention.

The two areas were comparable with regard to health and gender. More males were sick prior to the survey in the non-intervention area than the intervention area. The disease pattern was similar with slightly more skin diseases in the intervention area and slightly more coughs in the non-intervention area. The two areas matched well with regards to type of treatment received. While the preferred health facility in the non-intervention area was a private hospital, the population in the intervention area preferred community health workers, traditional healers and GoK health facilities. Reason for not using nearest health facility in the two sublocations showed that households in the non-intervention area found that the nearest health facility (private) was very expensive (42.1% compared to 20.0%) and far (42.1% compared to 0%),

while the households in the intervention area "did not believe" in the nearest health facility (40.0% compared to 0%) and found the staff to be poorly motivated (20.1% compared to 10.5%). Eighty percent of the households in the intervention area preferred to seek health advice from traditional healers rather than GoK health facility staff (compared to 6.3% in the non-intervention area), while self-medication was the treatment pattern in the non-intervention area (43.8% compared to 0%). Time taken to reach the nearest health facility was not significantly different in the two groups (87 minutes in intervention area and 82 minutes in non-intervention area). Visit from the MoH staff within the previous three months showed that significantly more households had been visited in the non-intervention area (11.1%) compared to the intervention area (4.8%) and the same pattern emerged when asked if any households had participated in any health activities within the previous three months (35.8% in the non-intervention area and 12.1% in the intervention area).

The two sublocations were finally matched for knowledge of the Community Based Nutrition Programme (CBNP) and its activities. As expected, more households in the intervention area had heard of and had knowledge of CBNP and its activities (89.7% compared to 13.8% in the non-intervention area).

Tables 8.2 and 8.3 show the gender and age distribution of children in the intervention and non-intervention groups and figure 8.1 shows the age distribution presented as histograms. There was a statistically significant difference between the age groups (0.016 (t-test-equal variance assumed)), the intervention group had a lower mean age (27.3 months) compared to in the non-intervention group (30.8 months). However, there was no significant between-group difference (χ^2 p .053). The sex of the children matched well in the two sublocations (χ^2 p .306).

	Sex of	Total	
	Male	Female	
Intervention (Mazumalume)	120 (46.5%)	138 (53.5%)	258
Non- intervention (Simkumbe)	170 (50.7%)	165 (49.3%)	335
Total	290 (48.9%)	303 (51.1%)	593

Table 8.2: Gender distribution of children aged 0-60 months in the intervention and non-intervention sublocations.

		Name of su	blocation	Total
		Mazumalume (I)	Simkumbe (NI)	
Age of child in months	0-6	27 (10%)	25 (7%)	52 (8%)
(grouped)	6-12	22 (8%)	38 (11%)	60 (10%)
	13-24	63 (24%)	74 (22%)	137 (23%)
	25-36	57 (22%)	69 (20%)	126 (21%)
	37-48	50 (19%)	66 (19%)	116 (19%)
	49-60	17 (6%)	48 (14%)	65 (10%)
No Information of age		22(8%)	15(4%)	37(6%)
Total		258	335	593

*Table 8.3: Age distribution (numbers and % of the total) in each of the two sublocations (intervention and non-intervention) of children aged 0-60 months*³⁴.

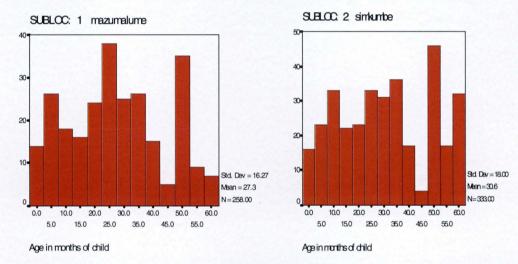


Figure 8.1: Age distribution of children aged 0-60 months in each of the two sublocations (intervention (Mazumalume) and non-intervention (Simkumbe)).

To sum up, there were significant differences in the general characteristics of the two sublocations in terms of access to and use of water and sanitation facilities, poverty and demography. The intervention sublocation was poorer, even after controlling for confounding factors such as closeness to main road and shopping centres, and the population was also more heterogeneous with a mix of ethnicities and religious groups and had younger heads of household who were less educated. The number of women married below 18 years was significantly higher in the interventions and these women had less education. The matching of children showed that the children in the intervention area were younger. These findings indicate that the two areas were non-comparable. Therefore the only analysis that will be done in this section is

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³⁴ This number has excluded 37 children (see exclusion criteria)

the comparison of the nutritional status of children over time, pre- and post PANS intervention.

8.2 The quantitative effectiveness of the PANS process

Effectiveness was quantitatively assessed through change in the nutritional status of children by comparing my field study data with baseline data. Height-for-Age Z-score (HAZ), Weight-for-Age Z-score (WAZ) and Weight-for-Height Z-score (WHZ) were calculated for children (WAZ, HAZ and WHZ scores are shown in appendix 16). Based on the exclusion criteria given in Chapter 7, a total of 15 households were excluded from this field study. The household data were entered into SPSS and EPI-INFO statistical programmes.

8.2.1 The baseline data: A baseline survey (including collection of qualitative data) was carried out in June 1995 by the Unit of Applied Human Nutrition, University of Nairobi. The aim was to provide baseline information prior to the implementation of the PANS intervention. The baseline survey comprised of 146 households within a 15 km radius of the Community Based Nutrition Centre (CBNC) in Kwale town, which was the location of the nutrition rehabilitation centre.

	CBNP survey 1995	UNICEF survey 2002
No. of household surveyed	146	
No. of children measured	186	
Mean household size	6.4 (SD 2.5)	
Mean age of father	37.8 (SD 8.2)	
Mean age of mother	28.3 (SD 7.0)	
% of household with orphans	4.8	
Prevalence of underweight (WAZ ≤ - 2 SD)	25.9	24.8
Prevalence of marasmus $(WAZ \le -3 SD)$	5.4	4.8
Prevalence of wasting $(WHZ \le -2 SD)$	4.8	4.8
Prevalence of severe wasting (WHZ≤-3)	Not reported	1.0
Prevalence of stunting $(HAZ \le -2 SD)$	46.3	41.4
Prevalence of severe stunting (HAZ \leq - 3 SD)	18.3	16.2

Table 8.4: Baseline data from nutritional survey, June 1995 (CBNP) and UNICEF (2002.)

This radius included in 1995 the intervention and the non-intervention area for this field study. The survey findings are shown in table 8.4 and indicate that 5.4% of the children surveyed were marasmic (WAZ less than 3 SD) and 18.3% severe stunted. As the majority of the severely malnourished group was between 12 and 36 months, the causes could mainly be related to health and caring practices of the parents. Table 8.4 also shows nutrition data from a more recent UNICEF survey conducted in 2002. However, these data indicates that, apart from severe stunting, not much change has taken place between 1995 and 2002. Both data sets will be used to compare my field study data.

8.2.2 Comparing the field study results with the baseline data

The data from the field study conducted during the same period of spring-summer (pre-harvest) in 2003 as the other previous studies were compared and are shown in table 8.5. Interestingly, this table shows that overall the severe forms of malnutrition, such as marasmus and severe stunting, had worsened while the milder forms, such as underweight and wasting, had improved.

	CBNP survey	UNICEF	PhD survey 2003			
	1995	survey 2002	I	NI	Total	Sign. (χ^2) p value
No. of household surveyed	146		167	194	361	
No. of children measured	186		258	335	593	
Mean household size	6.4 (SD 2.5)		6.0	7.5		
Mean age of father	37.8 (SD 8.2)		37.4	45.9		
Mean age of mother	28.3 (SD 7.0)				L. Car	
% of household with orphans	4.8		4	1.9		
Prevalence of underweight (WAZ ≤ - 2 SD)	25.9	24.8	21.7	23.5		NS .080 (df=1)
Prevalence of marasmus (WAZ ≤ - 3 SD)	5.4	4.8	7.6	5.1		NS .119 (df=1)
Prevalence of wasting (WHZ \le - 2 SD)	4.8	4.8	2.8	4.3		NS .145 (df=1)
Prevalence of severe wasting (WHZ≤-3)	Not reported	1.0	0.8	0.9		NS.704 (df=1)
Prevalence of stunting (HAZ ≤ - 2 SD)	46.3	41.4	46.9	41.8		NS .269 (df=1)
Prevalence of severe stunting (HAZ \leq - 3 SD)	18.3	16.2	24.9	18.5		S .008 (df=1)

Table 8.5: Nutritional survey data over time, June 1995 (CBNP) and UNICEF (2002) and PhD study June 2003.

Only severe stunting showed any significant deterioration (p< 0.008). The orphan rate had remained stable since 1995 (around 4%).

In summary the data shows that over time less children have become malnourished (not significant) but the proportion of severe malnourished children in the intervention areas had significantly increased. This could perhaps suggest an increase in inequality pattern.

To examine which factors could explain such a trends I assessed the possible genetic and environmental factors. For examining the genetic influence a scatter diagram was plotted comparing the height of the women (wives) with the height of the children in the intervention area. The result is shown in figure 8.2 (see also appendix 17 - 18).

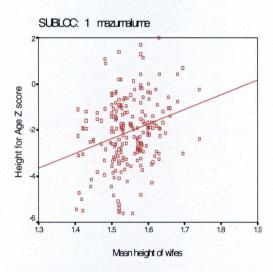


Figure 8.2: Scatter plot of HAZ compared to mean height of wives in intervention area.

As shown in this figure there was a positive correlation between the height of wives and the height of the children which indicates that genetic factors could have affected the height of the children in intervention sublocation. While there was no significant relationship between the height of the men and the height of the children, regression analysis confirmed the significant relationship between the heights of the women and the height of the children in the intervention sublocation (significance level p .000) (see figure 8.2 and table 8.6 and 8.7).

Analysis of Variance Regression		Sum of squares	df	Mean Square	F	Sig.
Mazumalume	Regression residual	23.240	2	11.620	5.632	.005
Intervention		185.685	90	2.063		(S)
	Total	208.925	92	E Kristinia		75/6-9

Table 8.6: ANOVA test for regression of relationship between mean height of wives and mean height of head of households (independent variable) and HAZ score (dependent variable) of children in intervention and non-intervention sublocations.

Name of sublocation	Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
			В	Std. Error	Beta		
Intervention (Mazumalume)	1	(Constant)	-17.846	5.572	.335	-3.203	.002
		Mean height of wives	7.682	2,314		3.320	.001
		Mean height of head of household	2.379	2.234	.107	1.065	.290

Table 8.7: Regression coefficient showing the relationship between mean height of wives, mean height of head of households and HAZ score of children in intervention and non-intervention sublocations.

For assessing the possibly environmental impact on the nutritional status four variables were chosen: 1) toilet use (after confirmed availability and assuming to effect diarrhoea pattern); 2) time to collect water during the dry season (assuming this would affect time for maternal care and hygiene); 3) offered HIV testing (assuming this would assess access to services); and 4) amount of land owned (assuming this would assess access to financial resources). Table 8.8 shows that no environmental factors influenced the height of the children.

Name of sublocation	Environ- Unstandardised mental Coefficients			Standardised Coefficients	T	Sig.	
	factors	В	Std. Error	Beta			
Mazumalume	(Constant)	-2.477	1.371		-1.806	.075 (NS)	
	Toilet used	547	.326	196	-1.679	.097 (NS)	
	Time to collect water	.000	.004	009	073	.942 (NS)	
	Offered HIV testing	.618	.618	.112	.999	.321 (NS)	
	Amount of land owned	.003	.031	.012	.105	.917 (NS)	

Table 8.8: Effect of environmental factors on the HAZ score in the intervention and non-intervention sublocations.

As the composition of the community varied significantly in Mazumalume, I looked at the influence such a variation might have on the nutritional status of children.

Mazumalume had four main ethnic groups, which were digo, duruma, giriama (all from the mijikenda ethnic group) and kamba, and a small number of other ethnic groups. Figure 8.3, 8.4 and 8.5 below shows how ethnicity influenced the nutritional status.

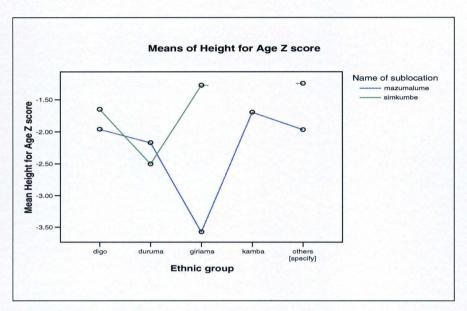


Figure 8.3: HAZ compared to ethnic groups for Mazumalume and Simkumbe.

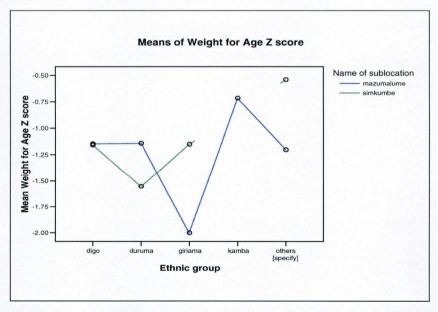


Figure 8.4: WAZ compared to ethnic groups for Mazumalume and Simkumbe.

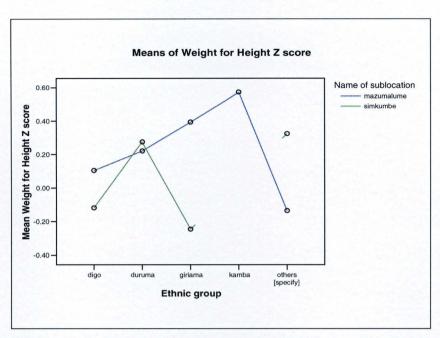


Figure 8.5: WHZ compared to ethnic groups for Mazumalume and Simkumbe.

While HAZ and WAZ scores are significantly (p< 0.015 for HAZ) and (p< 0.034 for WAZ) related to ethnic groups in Mazumalume, it is easy to see from the above that low HAZ and WAZ are mainly caused by the Giriama ethnic group. WHZ score was not significant (p< 0.331). The Giriama group moved recently into Mazumalume sublocation due to availability of land for farming. They are now living like squatters and are considers as outsiders by the other ethnic groups which caused constantly frictions, not only with regard to land ownership but also to other community issues and public goods, such as access to water, health and education.

8.2.3 Data consistency

One factor that could have introduced bias into the data set was the differences in response to the interviewers. As described in Chapter 7 there were four research assistants, two males and two females, two insiders who knew the PANS, the CBNP and the intervention area, and two outsiders. While the outsiders were allocated to the intervention area, the insiders were allocated to the non-intervention area to avoid bias. The distribution of completed questionnaires by each interviewer is shown in table 8.9.

Sublocation	Interviewer	No. of interviews done	%	
Intervention	1 (outsider male)	79	21.9	
	2 (outsider female)	106	29.4	
Non-intervention	3 (insider male)	91	25.2	
	4 (insider female)	85	23.5	
Total		361	100	

Table 8.9: Proportions of interviews done by each interviewer.

Consistency between interviewers was tested by choosing two sensitive variables from the questionnaire, income and educational status. Statistical analysis for consistency between interviewers within each sublocation was conducted using χ^2 . The results are shown in table 8.10. The table also shows the comparison between and within the two sublocations.

Variable	Between/within the two sublocations	Sublocation	Value	df	Sign. (χ²) p value
Economic factors	Between		15.714	14	.331 (NS)
	Within	I	30.925	20	.802 (NS)
		NI	11.172	4	.572 (NS)
Educational factors	Between		3.808	7	.056 (NS)
	Within	I	7.623	10	.666 (NS)
		NI	.966	2	.170 (NS)
Educational factors aggregated	Between		5.728	7	.025 (S)
	Within	I	14.059	10	.677 (NS)
		NI	4.383	2	.112 (NS)

Table 8.10: "Inter-interviewer" consistency for economic and educational variables representing the intervention and the non-intervention sublocations.

The aggregated educational variables showed significant differences between the two sublocations but the economic factors were not significantly different. For neither of the variables was there a significant difference between the two interviewers within each sublocation. This means that the "inter-interviewer" relationship was behaving consistently and that the data outcomes were not affected by the individuals within each research team. However, there could have been data bias between the two research teams but this is not relevant for my findings as the non-intervention was excluded.

8.3 The qualitatively effectiveness of the PANS process

The above quantitative assessment has shown that only severe stunting worsened significantly over time, but this result does not show if/how participation and empowerment (process) have changed. I therefore examined the scope and depth of the process of participation and empowerment, both for the pilot and the follow-up field study area and related these findings to the quantitative results. For easiness I have structured the discussion relating to assessment of participation according to 1) change between group over time for a) participation and b) empowerment, and change of participation between groups according to a) participation and b) empowerment. As there were no GoK technical officers involved in the pilot study I have excluded professional change from the analysis of the pilot data (table 8.13. and 8.14 below).

8.3.1 Results from the pilot study

These results are divided between the two groups that participated in the pilot study, the mixed group consisting of 7 men and 8 women, and the female group which consisted of 14 women. The scoring of participation and empowerment over time and among the different groups are shown in table 8.11 to 8.14. The spider diagrams (one for participation and one for empowerment) were visually compared, both between different groups (mixed groups and female groups) and over time (see figure 6.3 - 6.6).

Participation (between groups 2001): During the scoring of participation the community agreed that they had only participated in the following steps (see steps in the pilot phase in section 6.1 (table 6.1): initiation/introduction, leadership training and the community action plan. This pattern was similar for both the mixed and the female groups and was confirmed by interviews during the village walk. Comparing the degree of participation between the groups showed that the main differences were in step 3 (the establishment of the committee) and steps 7 and 8 (reflection and evaluation). During the scoring of step 3 (committee established) the female group had vivid discussions. Two women felt that they had been involved in the election of committee members while the majority, and especially the most vulnerable and

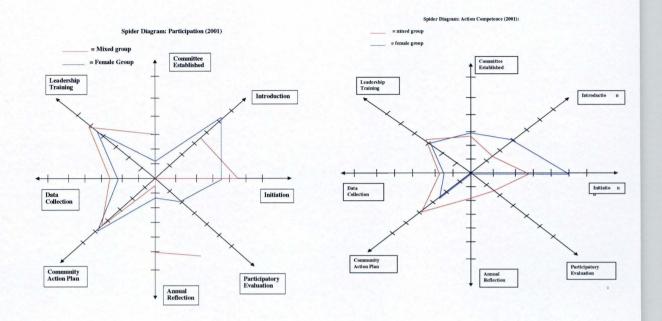
illiterate, felt that they had been excluded. There was no disagreement in the mixed group.

Observation and the scoring results showed that there were differences in the perception of participation and empowerment between the two groups, especially in step 7 and 8. While the feeling of the mixed group was that their participation had decreased towards the end of the development process/cycle (from steps 1-8), the opposite was the case for the female group.

Steps in the process	Sharing	Tools/ Methods	Behaviour/ Attitude	Access to resources	Total
Initiation	15	10	10	10	45
Introduction	10	6	10	10	36
Committee established	5	5	10	10	30
Leadership training	10	15	15	10	50
Data collection	5	5	5	10	25
Community action plan	10	14	10	10	44
Annual reflection	5	0	0	0	5
Participation evaluation	0	0	0	0	0
Total	60	60	60	60	240
Mixed group ex	ercise. Partic	ipation 2002			
Steps in the process	Sharing	Tools/ Methods	Behaviour/ Attitude	Access to resources	Total
Initiation	3	3	4	4	14
Introduction	2	2	3	2	11
	4	4	8	10	28
	4				
established Leadership	5	10	9	5	25
established Leadership training Data			9	5	25 50
established Leadership training Data collection Community action plan	5	10			
established Leadership training Data collection Community action plan Annual	5 10 10 6	10	13	13	50
Committee established Leadership training Data collection Community action plan Annual reflection Participation evaluation	5 10 10	10 14 9	13	13	50

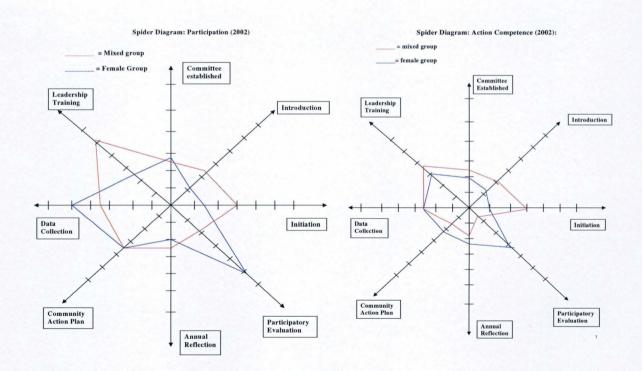
Table 8.11: Scoring of participation by the mixed group, 2001 and 2002 in the pilot area.

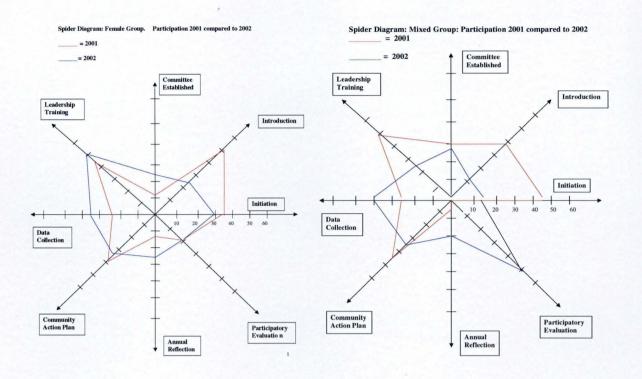
The women felt that they had been involved and devoted their time for reflection and evaluation and were now ready for re-planning. They had gained confidence through access to information as well as achieved representation in committees and boards (see figure 8.6, 8.7 and 8.8)



Spider diagram:

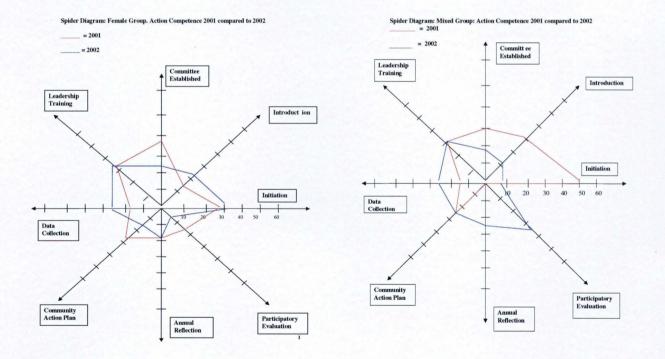
Figure 8.6 above: Spider diagram for 2001 (participation and empowerment). Figure 8.7 below: Spider diagram for 2002 (participation and empowerment).





Spider Diagrams

Figure 8.8 above: Spider diagram over time for participation (female groups and mixed group). Figure 8.9 below: Spider diagram over time for empowerment (female group and mixed groups).



Participation (between groups 2002): The pattern and scores for participation between the groups were opposite to the findings from 2001. The female groups felt that all steps during the second intervention cycle had increased their opportunities and actual participation. The range of the scores was also smaller (from 19-51 compared to 11-52) and there was no major disagreement in the group (see figure 8.6 and 8.7).

Steps in the process	Sharing	Tools/ Methods	Behaviour/ Attitude	Access to resources	Total
Initiation	5	6	15	10	36
Introduction	7	20	10	15	52
Committee established	0	0	5	6	11
Leadership training	19	14	0	10	43
Data collection	4	10	10	0	24
Community action plan	14	5	12	8	39
Annual reflection	5	0	4	5	14
Participation evaluation	5	5	4	6	20
Total	59 ³⁵	60	60	60	239
Mixed group ex	ercise. Partic	ipation 2002			
Steps in the process	Sharing	Tools/ Methods	Behaviour/ Attitude	Access to resources	Total
Initiation	2	8	10	10	30
Introduction	0	10	5	8	23
Introduction Committee established	5	7	5	8 8	23
Committee established Leadership	5		6		
Committee established Leadership training Data	5	7	6	8	26
Committee established	5	7	6	8	26
Committee established Leadership training Data collection Community action plan Annual reflection	5 14 9	7 14 8	6 10 9	8 12 8	26 50 34
Committee established Leadership training Data collection Community	5 14 9 13	7 14 8 6	6 10 9 7	8 12 8 7	26 50 34 33

Table 8.12: Scoring of participation by the female group, 2001 and 2002 in the pilot area.

In contrast, the mixed group argued, especially over steps 1, 2 and 8 (initiation, introduction and participatory evaluation) and eventually inserted an extra step called

2

³⁵ One stone lost.

"planning for next year", which clearly had been the task of the "gatekeepers" in the group (see figure 8.6 and 8.7).

Empowerment (between groups 2001): During the scoring and discussion of empowerment the mixed community group felt that they had been empowered,

		erment 2001			
Steps in the process	Institutional change	Personal change	Control over resources	Professional change	Total
Initiation	15	20	15	N/A	50
Introduction	10	10	10	N/A	30
Committee established	10	10	10	N/A	30
Leadership training	10	10	10	N/A	30
Data collection	5	5	5	N/A	15
Community action plan	10	5	10	N/A	25
Annual reflection	0	0	0	N/A	0
Participation evaluation	0	0	0	N/A	0
Planning for next year	0	0	0	N/A	0
Total	60	60	60	N/A	180
Mixed group ex	ercise. Empow	erment 2002			
Steps in the process	Institutional change	Personal change	Control over resources	Professional change	Total
			-		9
Initiation	4	3	2	N/A	9
Initiation Introduction	4	5	3	N/A N/A	12
Introduction Committee					
Introduction Committee established Leadership	4	5	3	N/A	12
Introduction Committee established Leadership training Data	4	5	3 7	N/A N/A	12
Introduction Committee established Leadership training Data collection Community	4 6 11 12 4	5 6 9 9	3 7 11	N/A N/A N/A	12 18 30
Introduction Committee established Leadership training Data collection Community action plan Annual reflection	4 6 11 12	5 6 9	3 7 11 6	N/A N/A N/A N/A	12 18 30 26
Introduction Committee established Leadership training Data collection Community action plan Annual reflection Participation	4 6 11 12 4 7	5 6 9 9	3 7 11 6	N/A N/A N/A N/A N/A	12 18 30 26 23
Introduction Committee established Leadership training Data collection Community action plan Annual	4 6 11 12 4	5 6 9 9 9	3 7 11 6 10	N/A N/A N/A N/A N/A N/A	12 18 30 26 23 24

Table 8.13: Scoring of empowerment by the mixed group, 2001 and 2002 in the pilot area.

mainly due to the steps relating to the implementation of the health development process (step 6) (see figure 8.6). The pattern for the female group was more

homogeneous than for the mixed group. The women felt that the initiation, introduction and the establishment of the committee (step 1, 2 and 3) had especially enabled them both access to and gradual control over resources. This pattern was confirmed by opinions expressed during village walks, interviews and observation.

Empowerment (between groups 2002): This exercise went well for both the mixed

remaie group ca	ercise. Empow	erment 2001			
Steps in the process	Institutional change	Personal change	Control over resources	Professional change	Total
Initiation	12	8	6	N/A	26
Introduction	2	6	4	N/A	12
Committee established	7	12	8	N/A	27
Leadership training	12	10	10	N/A	32
Data collection	12	3	12	N/A	27
Community action plan	9	10	7	N/A	26
Annual reflection	4	5	8	N/A	17
Participation evaluation	2	6	5	N/A	13
Planning for next year	0	0	0	N/A	0
Total	60	60	60	N/A	180
Female group ex	kercise. Empow	erment 2002			
Steps in the process	Institutional change	Personal change	Control over resources	Professional change	Total
Initiation	11	8	12	N/A	31
10I0ntroduction	8	7	7	N/A	22
Committee established	9	8	8	N/A	25
Leadership training	15	9	10	N/A	34
-	8	12	7	N/A	27
collection				NT/A	1.0
collection Community action plan	4	6	6	N/A	16
collection Community action plan Annual	3	6	6	N/A N/A	19
collection Community action plan Annual reflection Participation					
Data collection Community action plan Annual reflection Participation evaluation Planning for next year	3	6	10	N/A	19

Table 8.14: Scoring of empowerment by the female group, 2001 and 2002 in the pilot area.

and the female groups and followed a similar pattern apart from steps 1, 2 and 8 (initiation, introduction and participatory evaluation). The mixed group had, by the

end, taken over the competence acquired by the women at the beginning of the new intervention cycle.

Quantitative analysis of the area inside the spider: The areas inside the spider diagrams were calculated using the formula in section 4.3. The results are shown in figure 6.10 below. These results were quantitative measurements of participation and empowerment at specific moments in time but showing how the total score for participation had changed over time between the groups. The score for the female group was 2251 in year 2001 and 2569 in 2002 showing that participation has increased between 2001 and 2002.

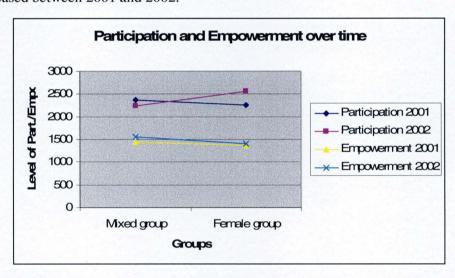


Figure 8.10: Results from the pilot study showing different in participation and empowerment score between groups and over time.

This was confirmed by observation and group discussions during the scoring process. Compared to the female group the score for empowerment was higher for the mixed group in both 2001 and 2002, which could indicate that, proportionally, the mixed groups (many of them gatekeepers) had benefited more from the health development intervention.

8.3.2 Result from the main field study

It was important to establish how many people knew about and had been actively involved in the PANS process. This question was therefore part of the questionnaire

used for the field study survey. In the intervention sublocation 89.7% of respondents had heard about CBNP but only nine of the households surveyed $(5.4\%)^{36}$ in the

Steps Levels	Partici	pation ³⁷ m	ean score	and rang	Empowerment mean score and range					
	Com	Subloc. Com	Div. Pans team	Dis. Pans team	Cen tral	Com	Subloc. Com.	Div Pans team	Dis Pans team	Cen tral
Step 1:	8	32	18/40	24/40	34/4	8	14	11/	34/	36/
Baseline survey	(0-32)		(0-40	(0-36	0 3236	(0-25)		40 (0-40	40 24-40	40 3240
Step 2: Social marketing	13 (0-35)	18	29 (0-40	30/ 24-36	36 3240	10 (0-26)	21	33 16-40	33 32-36	36 3240
Step 3:	7	26	31	30	36	7	16	29	34	37
Village walk	(0-34)		18-40	20-36	36	(0-26)		20-40	32-36	3640
Step 4:	16	27	36	35	35	13	15	36	35	37
Community gathering	(0-33)		26-40	24-40	3236	(0-26)		16-40	32-36	3640
Step 5:	21	26	35	32	36	15	15	35	34	37
Problem analysis	(0-33)		24-40	24-40	36	(0-32)		16-40	32-36	3640
Step 6:	10	14	25	30	33	11	19	29	31	36
Implementati on	(0-35)		15-34	24-36	3236	(0-31)		20-40	24-36	36
Step 7:	9	5	26	20	31	8	18	28	22	36
Monitoring and evaluation			19-33	12-36	2832	(0-23)		20-40	16-28	36
Step 8: Replanning	0	0	0	35	37	0	0	0	0	36
Total participa tion score	84 (0- 234)	148	200/ 320	201/ 320	276	72 (0- 193)	118	201 320	223/2 80	292/ 280

Table 8.15 Mean participation and empowerment scores.

intervention sublocation had actively participated in any of the steps of the PANS process. Evidence for this can be found in the fact that community action plans in were reported missing or incomplete, not fully implemented and re-adjusted over

This figure is only 1.2% of the total number of HHs in the sublocation.
 Scoring out of 40 stones.
 Range is only given for the community as these were individual household scores while the other scores reflect the sum of the total group scores.

time and that end-users had partly given up hope and thrust in their own systems, leaders and facilitators.

These households had mainly been involved in activities relating to interventions such as the community action plan (56% of households surveyed). The link between changes in nutritional status and participation and empowerment could not be confirmed empirically as the sample size (nine households) was too small. Consequently, the data presented below, which assess participation and empowerment, were used to further verify the scope and depth of the participation of different stakeholder groups. Scores for the four different preconditions for both participation and empowerment from community to central level are shown in table 8.15 and table 8.16.

Table 8.15 shows that both participation and empowerment were lowest at the community level and that the increase in both scope and depth of participation happened from community to sublocational level and from district to central levels. There seems to be an increasing participation from community to central level but interviews revealed that while the community valued access to resources this was less important for central level. The four pre-requisites for empowerment seemed to be of equal importance from community to central levels (see table 6.16).

Participation precondition	Precondition mean score (participation) and range					Action competen ce preconditi ons:	Precondition mean score (action competence) and range				
	Com	Sub. Loc. com	Div com	Dis com	Cen tral		Com	Sub. loc. com	Div com	Dis Co m	Ce tral
Total score for methods	22 (5-60)	34	51 0-80	53 0-80	67	Total score for personal change	18 (0-41)	34	51 0-80	53 32- 72	75
Total score for attitude and behaviour	21 (0-58)	36	50 0-80	51 0-80	69	Total score for institutiona l change	16 (0-40)	33	50 0-80	56 56- 72	71
Total score for sharing	22 (0-57	36	49 0-80	52 0-80	71	Total score for profession al change	16 (4-43)	22	55 0-80	58 48- 72	75
Total score for access to resources	16 (0-59)	38	51 0-80	45 0-80	69	Total score for control over resources	15 (0-48)	29	50 0-80	56 40- 80	71

Table 8.16: Scores for preconditions of participation and empowerment from Intervention sublocation.

For all groups step 4 (community data gathering) and step 5 (problem analysis) were the most important steps in gaining participation and empowerment.

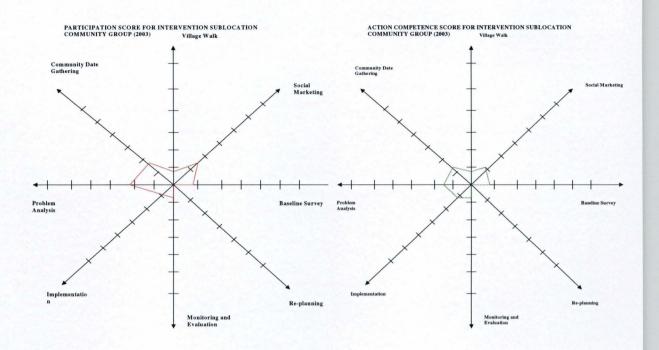


Figure 8.11: Participation (Red) and Empowerment (Green) scores from intervention sublocation. View of community groups transferred to spider diagram.

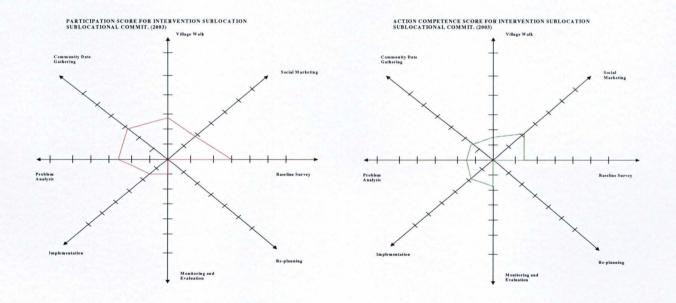


Figure 8.12: Participation (Red) and Empowerment (Green) scores from intervention sublocation. View of sublocational development committee transferred to spider diagram.

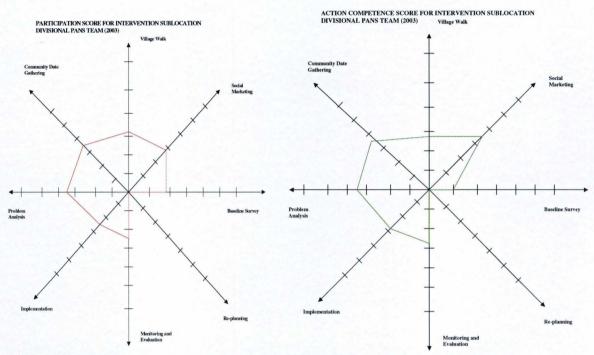


Figure 8.13: Participation (Red) and Empowerment (Green) scores from intervention sublocation. View of divisional PANS team transferred to spider diagram.

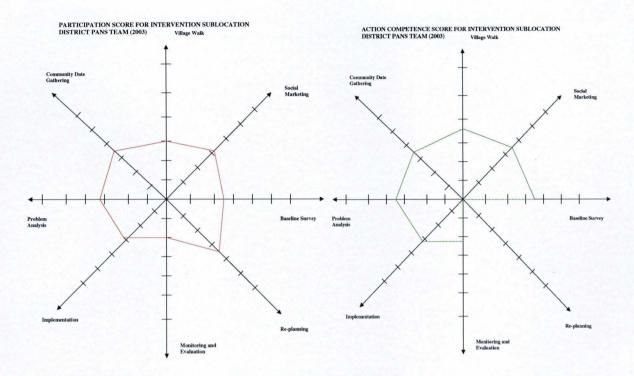


Figure 8.14: Participation (Red) and Empowerment (Green) scores from intervention sublocation. View of district PANS team transferred to spider diagram.

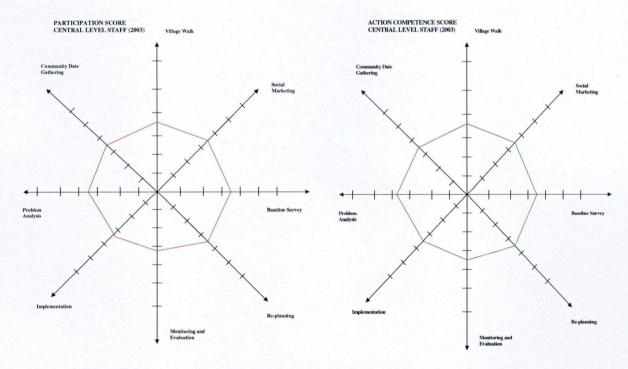


Figure 8.15: Participation (Red) and Empowerment (Green) scores from intervention sublocation. View of Headquarters team.

Using the formula shown Chapter 6 (section 6.3) the areas inside the spider web were calculated for each spider. The results of the total mean scores for participation and empowerment are shown in figure 8.11. These results confirm that participation and empowerment gradually increased from community to central level.

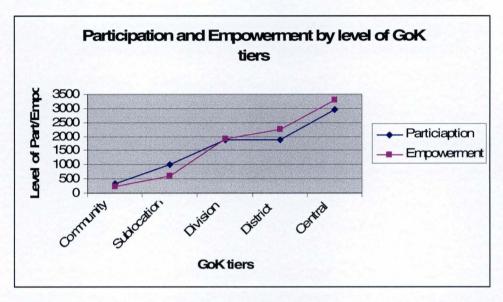


Figure 8.16: Mean scores for participation and empowerment in the main study area for different tiers of the GoK system.

8.4 Summary and conclusion

The assumption on which I originally matched the two sublocations was that they were comparable. Although aggregated district statistics and interview data initially showed that the two sublocations were quite similar, the field study results showed that there were significant differences in most of the household characteristics, such as water, sanitation, poverty and demographic data. The basic difference was that the intervention sublocation was more heterogeneous, poor and had less access to services.

Measuring the impact of the PANS intervention by comparing the nutritional status of children under 5 years of age in the intervention and non-intervention area became impossible as the two sublocations did not match. However, I did try to compare the nutritional status of children pre- and post PANS intervention which showed that while the mild and moderate forms of malnutrition have slightly improved severe

malnutrition had deteriorated (stunting significantly). Compared to the overall trend of malnutrition in Kenya which has remained unchanged (appendix 5) this could indicate an increased inequality gab resulting from poverty caused by cultural factors, such as uneducated women marrying below the permitted age of 18 years, a more heterogeneous community causing conflicts between and within the households and power structures among local leaders, which will be further discussed in chapter 7.

Based on the positive relationship between the height of the women and the HAZ scores of the children, genetic factors could be considered as explanations for the shorter children in the intervention area and also the significant decrease in severe stunting over time. Although Habicht (1974), Waterlow (1994) and Cole (2000) attribute stunting to by poor nutrition, infection and mother-infant interaction (referring to pregnancy, lactation and child care), Wadworth (2002) and Rona, Swan and Altman (1978) include parental height and (Montgomery, Bartley and Wilkinson, 1997) add any history of emotional disturbances as causes of stunting. Genetic factors contributing to stunting is unlikely but can not be excluded.

However, whether or not the PANS process itself had been a success was another question, and one could argue that the fact that only about 1.2% of households in the intervention sublocation (5.2% of the households surveyed) had participated was a weakness not to be overlooked. As stated by Hailey (2001) and Muthengi, Speight and Kilalo (2001) representation can be problematic where participation is through representation and/or dominated by a small sample of self-selected people. On the other hand, data from the pilot area in Makueni have showed that there could be a significant spill over effect of the PANS process which could have spread the impact horizontally. Unfortunately, the PANS intervention did not take place immediately after the baseline survey and time might have changed these communities. Factors such as migration in and out of the intervention sublocation, the introduction of a minor roads project in 1996 could further increase heterogeneity. These findings are important as they support the theory that homogeneity and social cohesion consensus-building in a society are preconditions for participation, empowerment and poverty alleviation.

The results from the pilot study have shown that it is only the participation of the female groups (which was the weakest and most vulnerable group) that increased over time. Interestingly, the pilot program had a homogeneous community but no real contact with the government system, which is known to influence societies through their vertical power structures. This could contribute to the explanation of this finding.

The result from the main study area showed that the participation and empowerment scores consistently increased from local to central level, which was the opposite of the CBNP's intention. This confirms what is already noted by Gillespie (2003) and Schellenberg et al. (Ainsworth and Semali, 2001); poverty and nutrition/malnutrition interact and this interaction is influenced by the degree and form of subordination of the poor, often women. The fact that this area had a very heterogeneous structure and had close contact with both horizontal and vertical power structures could influence the degree of participation and empowerment.

Interviewer bias was tested by examining the consistency of interviewers within each sublocation. No significant inconsistency was found in assessments of economic or educational factors. This suggests there was no interviewer bias. However, there was no way of testing whether interviewers within a sublocation were both equally biased, although this seems unlikely. The Hawthorne effect (reactivity effect) could not be excluded. However, I did what I could to minimise this effect by spending a considerable amount of time within the community and learning its norms and culture and thereby being accepted by local leaders. Additionally, the research assistants and I worked in partnership with village coordinators chosen by the community.

Despite the concerns mentioned above this field study has demonstrated a model for assessing participation and empowerment and their possible effects on the nutrition and health status of a population. These tools could be useful in repeated pre- and post-intervention studies in other community based health and nutrition intervention programmes.

CHAPTER 9: FACTORS INFLUENCING PARTICIPATION AND ITS OUTCOMES

Introduction

This chapter presents the findings from the analysis of the qualitative data aiming at identifying factors influencing the effectiveness of participation. It addresses research question four: "What factors influence the outcomes of the participatory process to health development?". This analysis is important because health planners and managers, politicians and academics alike are currently seeking to understand the complex processes that are involved in achieving better health through participatory processes. Data were therefore collected to disclose factors facilitating or hindering success in both process and impact of health development. Whereas Chapter 8 mainly focussed on assessing the quantitative impact of the PANS process, this chapter will concentrate on the qualitative assessment. A photo record of the data collection is shown in appendix 19.

This chapter draws on data from six key informant interviews, nine focus group discussions and observations with respondents from the community, division, district and central levels. A full list of interviewees is shown in table 6.3. This chapter is divided into four sections and builds on the quantitative and qualitative data on effectiveness described and analysed in Chapter 8. The first section describes the perception of participation by the stakeholders at community to central level. The second part analyses different factors facilitating and/or hindering the process of participation. Next, stakeholders' perception of the outcome of participation is described and explained and, finally, a conclusion is drawn.

9.1 Perception of the meaning of participation from the field

This section complements the literature in addressing research question 1 by describing how the community in Kenya perceives participation. Participation was referred to as involvement and central to this involvement was consensus building four major themes were important for involvement leading to consensus building and participation. These were, sharing, access to resources, attitude and behaviour and

methods and tools used during the participatory process. Sharing was related to organisational structures and systems as well as to common identity, such as expressed by a dispensary committee member, "I think participation is about coming together to perform activities as a group to achieve a common goal. When you participate, you become one thing, if you don't, it is different". In fact, without a common goal the community feared that participation could and would not happen at all. But without access to resources or benefit, such as financial, in-kind or otherwise, the participation would fail. This was expressed by male participants, who stated that,

"We think that the community must know the purpose of participation and how it will benefit them, educate them on the whole process. Before you get involved, you have to think of the outcome (benefits). You go there (to participate) and expect results but first you have to like it (know what you get out of it)"

That benefits are important raises other issues such as access to information. Assumptions were often that participants were informed about the *why*, *how*, *what*, *when and where* of participation, but this was not always the case, and for participation to succeed it was also not irrelevant who was the informer. This had to be a respected person who would have the capacity to communicate. Information was associated with responsibilities, and these responsibilities could easily create conflict. If leaders then did not have the right attitude and behaviour to solve such conflict and acknowledge differences and rights then participation would not happen effectively. This would require that tools and methods that are sensitive to such conflict are used. This is well described by a person from the sub district development committee, who said,

It all depends on the tools that you have on the ground. So if you use the tools properly, then you don't have to explain because the community just have to see it, that this is caused by this. But if you don't know the right tools you are using to gather that information, you might not even be able to gather that information. Or it might be very difficult for you to convince the community that the problem is not this but it is this. So it depends so much on the type of tools that you are using when gathering the information

and

So, *use* the local available material, let the community picture their area, figure their problem, bring it out to them so they can see, and let them be involved in identifying the problems. Actually, let them participate, and I think that process help them very much

The order and type of tools and methods were also important. This was explained by a person from national level when she said that, "the tools and methods we use in facilitating participation are like keys to a house. These keys are organised in a certain way so we can enter the house and it is the same with the tools used in participatory development".

9.2 Factors impacting participation

Factors impacting participation are below divided into facilitating and hindering factors.

9.2.1 Factors facilitating participation: Figure 9.1 presents factors that were perceived to facilitate participation. Seven major themes emerged from the interviews: 1) management; 2) capacity building; 3) congruence building; 4) equal access to resources; 5) feeling of ownership; and 6) giving hand-outs and force. The relationships between these factors and their sub-themes are shown visually in figure 7.1.

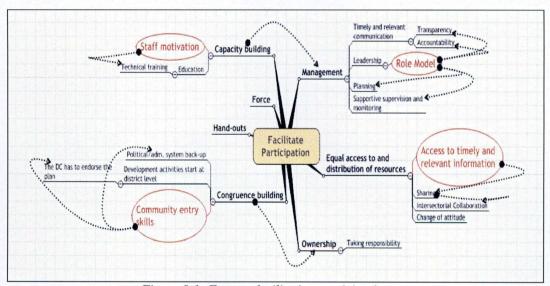


Figure 9.1: Factors facilitating participation.

Management: During all focus group discussions the major theme said to be facilitating participation was management, namely referring to financial management. This is exemplified by a man from the dispensary committee (intervention area) explaining,

Though we were not given the money (for the school project), we were given the school. I think that management matters a lot... you have to be a good manager so that you are able to control the resources, human and financial, at all stages. There has to be proper management, and this comes when people are transparent.

Interestingly, transparency and accountability and free communication were issues mentioned as facilitating participation both by the male group and the mixed community groups. Transparency was seen as a characteristic of a good leader and, therefore, leadership was important for participation. All people in the groups interviewed found that it was very useful to have their (good) leaders involved in development activities. This was confirmed by remarks form one group members of the mixed group as he said, "I am there as a common man but how can a common man learn what the project (participation) is expected to do, unless I am told by the leader" and, "people should be organised through the village chairmen and the administrative leaders". Other characteristics of a good leader mentioned by the sub chief (non-intervention area) were respect and use of proper language and these were confirmed by the community. One example is a male member of the mixed community group who said that "leaders should be transparent, accountable and treat people equally".

Planning was another important aspect of management mentioned both by headquarters staff and community groups. Headquarters staff said that proper planning at all levels, and especially planning of the "community action plan", would decrease confusion, cost and "everybody would come to understand what is being done". Five TBAs (women) commented,

We should plan what to do before anything is done. Proper planning and identification of the priorities and budgets before the proposal are sent to various donors are important, so we know what to expect. As we are performing the task, we follow the plan and see if it is working; also we should have a report.

This led to other issues being raised by the district PANS team on *supportive* supervision and monitoring. Monitoring was found to be hard as transport was needed and not sufficiently available. Two men from the divisional PANS team agreed and stated that,

If everyone has access to transport and we all have our work plans, we are sure that those communities and villages that we are talking about would have no problems because every expert required would be available, and at the right time.

Referring to "the right time" was about planning programme start-up and organisational set up. Five of the groups interviewed felt that starting the PANS process simultaneously in the *whole* sub location had been too much. Quality had been lost to quantity. One man said "the idea of narrowing down to the village, I think, is good because handling a sub location, that becomes too much". This view was endorsed by members of the dispensary committee in the intervention area who explained that different villages might have very different problems. Their opinion was that it would have been better to phase the PANS process and introduce the approach village by village.

During the discussion of phasing, a few examples were given of the importance of a *role model*. Quite interestingly, four groups gave examples of what they considered a role model. One man reported that,

A certain percentage will like it (participation) and they can be used to influence the dragging lot. I will give an example: there was a time when (Ministry of) agriculture brought a project to this village. Some participated and others did not. But since the results were successful those that did not participate wanted to join later, and they really enjoyed it.

The interviews with the community (the TBAs and the CHWs, the male group, the mixed group and the sub chief from the intervention area) revealed that the local organisational set up, which in many instances was different from the recognised GoK structures, had been important for participation to succeed. Programme staff entering a community should either use the already existing local structures represented by the chiefs and the sub chiefs, provided they were transparent, or form other transparently elected, accountable structures.

The community also recommended that their official leaders should be involved and informed, "People should be organised through the village chairmen and the administrative leaders". During the PANS process the sublocational development committee (also called the village development committee) had been formed. This structure was parallel to the existing sublocational development committee consisting

of the sub chief and his appointed village chairmen (also called village elders) but the sub chief was aware of this fact and had been involved. He explained how the two committees referred to each other and that he, as the area leader, was the person responsible overall and so far there had not been any conflict of interest.

Capacity building: Despite not being clearly defined, capacity building was mentioned as important by the headquarters, divisional PANS team and the sub chief of the intervention area. One headquarters staff said that, "we know that capacity building is mobilising and empowering the community to uplift their standard of living". She further explained that capacity building was both a means and an end in itself for achieving better health and nutrition. For the community, capacity building was perceived as the ability of the community to receive and absorb other projects. One man said, "When the PANS project came here, then other projects later found it so easy to work in these villages because the community was already ready and sensitised".

Participants must be *motivated* for capacity building to take place. A man from the mixed group described how, "Motivation can come from within (psychological asset)" and went on, "if you love to go there with a good intention, you will go (*and participate*)". Motivation can also be due to certain benefits in terms of knowledge, as one man explained,

For a person to participate well in any development project, I think he should be told the benefits of that project, because we don't expect losses anyway. If he has the full knowledge then he will be more willing to participate, while others would only be motivated if there were benefits, such as "food for work" or "relief food".

For some respondents capacity building was equal to *education*. One man from the mixed community group said, "all of this is called education, so from here I know that I have participated (*and built capacity*), as I have learned something". For other respondents education was a prerequisite for capacity building and for participation to take place. A TBA said, "I think that what a person needs in order to participate (*and build capacity*) is maybe to know about what he is about to get involved in, by being educated, so he can participate (*and get capacity*)". Another perception of education

was that it was equal to the outcome of participation and capacity building, as shown by the following statement,

If one knows... (explained how an educated person had identified the need for educating and caring for the small children after the PANS process)... if I do a certain thing and that thing is the outcome, this is very important.

A male member of the sublocational committee described this as follows,

The education you are talking about, you know there are different ways of education. These are 1) where you are from, 2) where you are now, and 3) where you are going. So if you have the background and you are here now and have the knowledge of how it's going to be thereafter, then that education (capacity building) is going to be very productive.

The conclusion was that the PANS process, which was considered as an educational process in itself, had enlightened the people of Mazumalume about their own capacities to make choices (opportunity structures) and how to transform these choices into desired action for the benefit of themselves and the whole community.

Congruence building: Congruence building was related to *community entry skills*. Three focus groups mentioned these skills and stressed the importance of using local existing groups in appropriate socio-cultural ways. Another important entry skill was *endorsement by the district commissioner* and the *goodwill from the political/administrative system*. The sub chief (from the non-intervention sub location) said.

If a leader tells them (the community) then they will cooperate. This is something that we should practice from the top. This community, which is down at the grassroots – at the village level, they have never seen Kibaki (the president). They have never talked to him, but they will see Kibaki through me (the sub chief), they will see a minister through me and they will see the provincial commissioner and the district commissioner through me. If people like the chiefs and the village chairmen and they are informed of such a project (participation), then they can inform the community through barazas and dispensary meetings. It could be wise if the village chairmen should be the one to talk to the people directly, as they are more close to them (the people) than many chiefs and sub chiefs.

Equal access to resources: Equality was important for the community and related to access to timely and relevant information and sharing through collaboration, such as

intersectorial collaboration as well as certain respectful behaviour and change of attitude. Three groups specifically mentioned equality. One man from the dispensary committee (intervention area) said that, "information should be spread evenly to all corners of the sub location through the village elders and schools" and that, "all villages should be involved through their village chairman equitable". These messages referred to gatekeeper functions, which will be discussed further in section 9.3.1. Access to information, sharing and cooperation (especially intersectorial cooperation) were seen as means to equal access (and control) and were described by nine of the groups interviewed. Sharing could range from sharing of information, resources and planning to cooperation between and within groups who had similar interests, usually in the same geographical area.

For the headquarters staff and the district and divisional PANS teams, the issue of intersectorial collaboration was very important. The Ministry of Culture and Social Services does not have the official coordinating mandate of other ministries but it does have the mandate to register and coordinate NGOs and community groups. It was therefore difficult to ensure effective coordination and avoid duplication and confusion. One man from the divisional PANS team said.

... If we leave it (coordination/sharing) to the departments of different ministries, they will go back to their priorities and probably focus on other small villages (outside of the PANS process intervention area). So I tend to think, if the programme (CBNP) has come up and chosen an area they want to go into, then we should check first if we (staff from the different ministries) have enough resources to go into that project (and participate). How much can we achieve with what we have and how much do we demand from other departments or other interested parties (sharing and intersectorial collaboration)? If we start something and then later say we don't have enough funds, our funds are finished, then what about the community? So it is important that we find out if we have enough resources to start this particular project.

The headquarters staff gave examples of good coordination and referred to the neighbouring district (Kilifi) where different donors, NGOs and GoK departments collaborated effectively. They also explained how coordination takes place at the central level through an inter-ministerial steering committee, which comprises all ministries relevant for the implementation of the PANS process. However, the function and mandate of this committee were not explained.

Feeling of ownership: Three groups said that ownership of the project (*the participatory process*) was important and would facilitate participation. While the district PANS team saw ownership as relating to *responsibilities*, such as to perform certain activities, the sublocational committee felt that, before anything could happen; full ownership of the whole participatory process must be in place.

Hand-outs and force: Contrary to all other issues and perceptions of what could or would facilitate participation, two interesting issues emerged. One was the issuing of hand-outs to the community and the other was the use of force by leaders. Two groups mentioned that hand-outs were important for facilitating participation. The dispensary nurse in the intervention area described how incentives and hand-outs would facilitate participation, especially the participation of men. Examples of such hand-outs include providing transport to the leaders and bringing gifts. A member of the women's group, however, cautioned that, "small gifts can be offered and can only increase participation, but when these are withdrawn; the people may not take an active part in the project (participation)".

The second issue raised was the use of force. Six of the groups mentioned force as facilitating participation. A man from the mixed community groups said,

Like the first time you take a kid to school, you have to use force, since the kid does not know why he is going to school, but you as a parent, you know. But later the kid will learn and know the merits of education.

A member of the women's group said, "I think they (*the community*) should just participate and if they don't, then action (*punishment*) should be taken on them, these projects belong to them". And lastly, the sub chief (male) of the intervention area said.

Sometimes administrative powers have to be used. With some, you have to use force. Sometimes I tell my village chairmen to help me mobilise for a baraza, but, he (the village chairman) should write somebody's name down to make sure that he has passed the message. This name he gives to me. Now somehow (the one that does not want to participate) has to think, because if he fails, then his name will be put down. How will that be taken? you see?

9.2.2 Factors hindering the process of participation: The factors hindering participation were clustered into four main categories: 1) gatekeepers; 2) expectation do not match reality; 3) illiteracy; and 4) insufficient resources. Each of the factors and sub-categories are summarised visually in figure 9.2.

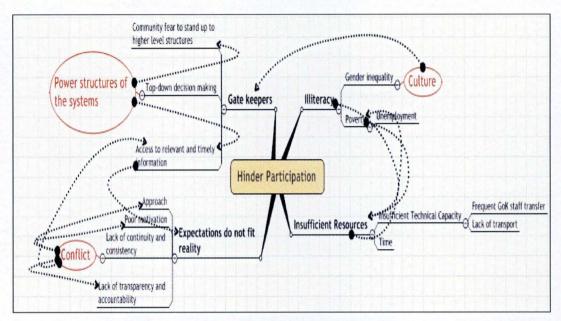


Figure 9.2: shows factors hindering participation.

Gatekeepers: Nine of the thirteen groups/people interviewed identified gatekeepers as a hindering factor for participation. For the people at the district and divisional levels, the community was seen as the problem. One man from the divisional PANS team said,

In some instances you find that the community believes that the implementation part is only for the Village Development Committee (VDC), and they say it is the VDC's project. This is when it comes to doing work, you see? The ones you say are overburdened by the activities are the ones coming (to the meetings), because the rest of the community members are not showing any interest. So maybe 10-15 people come. A small group of people will find the sincerity in what we are trying to do. The same few are the ones that are overburdened, and especially when it comes to contribution.

The dispensary committee (intervention area) saw "the organisation" (*later referred to as the donor*) as the problem. One woman from this committee stated:

If the organisation (the donor), for example, educates (and chooses) a few members who in turn are supposed to spread what they have learned to the

community, and in this case they choose people with the least interest in development, the project (participation) dies immediately.

This was explained further by a man from the same committee, "people might be reluctant if the leaders ignore the common man or do not like to cooperate with people. If, in this case, he (the leader) calls for a meeting or anything, people won't attend". The sublocational development committee (which was the same as the village development committee) admitted that they were perceived "gatekeepers". Another man said, "like, because we are the committee members, some may say that the project is ours". However, the same person later explained that he (and the rest of the committee) felt that they were the few people who had really put an effort into the project and therefore had the right to own it. One man said, "like the nursery, who started it? When it was started many people said that it belongs to the VDC. If you look at it, it is just that lady and me (that are perceived to have built it), is it really possible for the two of us to put it up?"

Greediness was another issue raised by the male community group as hindering participating (through gate keeping),

In most cases it (gate keeping) is caused by greediness. Yeah, it is. They (the community) think that whoever was there first gained more from the project (participation). They see no reason to go there (to the project) as others have taken everything. Or the chairman of that project (member of the VDC) can be greedy, keeping things to himself. In such cases, no matter how hard you call for a meeting, nobody will attend as they think the project is benefiting another person.

This view was confirmed by the women from the same group who said, "the meetings were only for the PANS team members. We were just asked to carry sand to the identified site (for the construction of wells)".

Distorted information by the village elders and GoK administration was another reason for not participating. One male group member said that either a message was not received, "a person may not participate if maybe the message which was sent did not reach them" or not understood, "a person does not understand, but if well informed, that person will be different. You see some think that they have been cheated, but it is lack of understanding". The women felt differently and said,

We were never told the name of the organisation (*CBNP or Danida*) and about the (*PANS*) meetings, and it was **not** OK. We would have liked to participate. In that way the organisers would ask the (*whole*) **community**'s opinion. Then the (*whole*) **community** would be in a better position to understand what they were supposed to do and what the donor was ready to help with.

One man from the male community group who had been a committee chairman tried to explain that jealousy can hinder participation. He said, "if you, as a local leader, succeed, jealousy causes people to put you down" and continued,

I think most of the time people's failure is brought about by jealousy because maybe you can say you are rich, but back in the village people are not happy for you. It's worse when you become their leader. Then they will not cooperate, maybe until they see the fruit of your success, then they blame themselves.

He then described how at first he had worked hard. He was told he would have 100 people to work with, but only ten people turned up. Due to commitment and hard work the project finally succeeded and it became a role model for the community. They will now, "rethink because we have good teachers and we expect good results". The harmonisation between top-down donor-driven financial procedures and bottom-up participatory process was difficult. A man from the divisional PANS team said,

We, the Community Health Workers have to be trained fully but if we are given five days training and we have to follow the order, it becomes difficult. Like the training we were doing last week, we are now waiting for Danida to give us a go ahead to continue with the second phase. The restrictions that are coming (*from above*), they are making it impossible (*to implement the PANS process*).

However, observation revealed that during the training sessions the trainers got very good allowances and fees so their vested interest in arguing for longer and more training cannot be excluded. The top-down decision-making was also felt by the TBAs and CHWs who all agreed that, "the donors should not take control of everything but involve the community, and this will make the people feel at home, and hence participate more".

They went on, "you will find that many organisations visit a village and they take charge of everything. In that case, when they leave, the community can't continue, especially if it (*the participatory project*) was not completed". This had happened in

Mazumalume (the intervention area) where both the construction of the nursery and the wells were never completed, and the CHWs were still waiting for the final training sessions.

Lack of commitment by the donor/GoK was a sign of gate-keeping. Examples were given such as un-kept promises, which could be in relation to meetings, timing and time-keeping, funding, lack of assistance with monitoring, and unfinished training. This had discouraged the community (said by the female, the male, the mixed groups as well as the TBA's and CHW's). "Faithfulness of the donors in attaining their goals matters" was a comment from a member of the mixed community group. And a member of the divisional PANS team continues, "we are now waiting for Danida to give us a go ahead to continue with the next phase". Some projects were left unfinished. The community had done their part but the GoK/donor did not keep their promises, "they never came back for the wells nor the nursery, and we are still waiting" was the comments from a man from the sublocational committee. The sub chief of the intervention area was, however, defending the CBNP and said that they were not to be blamed as they were not the implementer.

Another factor hindering participation related to gatekeepers such as the politicians, the GoK administrative systems and the local leaders. A female headquarters staff member commented that, "in some places there is no political support. This hinders participation. The community cannot participate and the stakeholders are not able to participate because they are not backed by their sub chief". This view was confirmed both by the district and divisional PANS teams when they stated, "start from the district level to the community level, and it will only have impact if the district commissioner is aware (*endorses*)". Both subchiefs (intervention and the non-intervention) commented on arrogant and corrupt leaders, and a man in the non-intervention area said,

When the leaders feel that they are so important, that's when projects get spoiled. They (the leaders) turn to the wrong people, they don't want to listen to their people, and they don't take advice on issues and give time for their people. Another thing, which makes a lot of leaders unpopular, is taking bribes.

The sub chief of the intervention area admitted that, "poor leadership blocks participation. If you harass people they won't participate". Half of the men from the dispensary committee in the intervention area ascribed poor participation to ignorance amongst their leaders, but they also said that participation can only succeed if the chairman (of any committee) is involved, "otherwise he (the chairman) can bring ill motives". All the members of the mixed community groups, the TBAs and CHWs later agreed that, "leaders should be involved and be educated for being motivated and supporting the project (participation), otherwise the community will not be encouraged and therefore relax".

But even if the leadership at community level was in order there need to be formal structure for effective intersectorial collaboration for participatory approaches to be scaled up and succeed nationally. Each technical department had its own agenda where "the divide and rule" mentality still persisted (said by a man from the divisional PANS team). The same person found that the Department of Social Services where the CBNP was housed was not the right Ministry (or sector) to implement the activities of the PANS process, and that this did not favour the outcomes and participation of/in the community.

Expectations do not fit reality: It was clear from three focus group discussions with the divisional PANS team and the dispensary committees in the intervention and non-intervention areas that participation could be hindered if the community expectations were not met. One man from the divisional PANS team explained this clearly by saying,

It becomes so difficult because they (the community) expect us to go there (to the participatory project) with handouts. When they see us approaching they think that now we have come with handouts. They are ready to receive, but unfortunately at the end we tell them no, we don't have anything. And actually we have. It is only after you have done it (the PANS process) that you can convince somebody, somewhere, that these people are worth assisting, you know. So that part becomes very difficult. So we come up with action plans and with a lot of expectations. But when it comes to the action implementation, most of the time, we are disappointed, because our targets are never achieved. The action plans look so simple to implement, but that is not the case. So we come up with much magnified things of expectations, but when we come to the implementation and we start monitoring, we find that we have achieved very little from what we expected.

The hindering factors for participation are explained using six sub-themes, the selected *approach* to development, *poor motivation* especially by leaders, lack of *continuity and consistency*, lack of *transparency and accountability*.

The *approach* taken by the CBNP referred to the choice of starting development activities in the whole sub location. Both district and divisional PANS teams agreed that such an intervention should have been phased, one village at a time. The fact that the PANS process and its action plan had been implemented through newly established community structures and thereby avoided already existing structures had taken time to acknowledge and accept. There might have been good reasons for these choices but few understood and recognised them at an early stage and not enough time had gone into internalising these processes by the different stakeholders.

According to the headquarters staff, *indifference to* and *motivation* for the PANS process was important. Members of the district PANS team said that, "indifference is a problem because one does not know how to solve it," and another man from the sublocational committee said, "when we go to the office in Kwale they (*the GoK staff*) told us to wait and "bla, bla, bla", and we found it tiresome and then since it was the first project here, we were kept waiting until we felt cheated".

Motivation was also an issue for the Headquarters (HQ) staff. One person reported that the heavy workload of HQ staff is not being appreciated in cash or kind. Such appreciation but could be recognition. A sublocational committee male member also referred to (de)motivation,

We just go and see what the community has done, like the digging of the well. But they (the community) don't have the knowledge of what to do after digging and neither do we, and then the work is abandoned (due to lack of supportive supervision by technical officers).

The PANS process could not go ahead if the facilitators did not have specific attitudes and behaviours favouring participation, referred to as integrity and respect. They also stressed the importance of a multi-sectorial approach. This approach had not been administratively formalised so staff from other technical ministries felt that *they* were doing CBNP work. One woman from the headquarters commented, "if I had power I

would like to see this intersectorial collaboration institutionalised so that people (*staff* from GoK, NGOs, civil society) can know that they are working as partners and in partnership". The same person mentioned that due to the exclusion of the staff from provincial level, participation had sometimes failed.

Lack of continuity and consistency, both in implementation and staffing, was also seen to hinder participation. The headquarters and district staff complained about staff transfers leading to disruption. This was confirmed by the community who explained that because facilitators did not know what was going on, "new projects were started before others had been finalised". Lack of consistency – "saying one thing and doing another thing" – was for the community and the divisional PANS team an issue. The community described how donors did not keep their promises (meeting dates and time) and how they were brought gifts and expected to work for free.

Another inconsistency was observed by the divisional PANS team. A man from this team described how they were working with the community and teaching them to be independent and solve their own problems, whilst concurrently seeing that the community received free food (a policy of the donor) so, "you tell them that they are the people to bring the stones and the cement (as they have to be self reliant), but they will not get it". Interestingly, the same PANS member complained about his own allowances, which he found to be too little. Inconsistency and lack of harmonisation of allowances were also mentioned by headquarters staff as hindering participation.

Monitoring, follow up and re-planning were problematic and had hindered effective participation as projects were not adjusted to the reality in which they were implemented. A man from the dispensary committee explained that the different committees rarely met to discuss, plan and re-assess progress, and it was now more than one year since the last meeting took place. Apparently, a request for supervision had been forwarded by the sublocational development committee to the district via the division, but nothing had happened. On the other hand, the community had not taken any initiative by themselves to follow up issues. Contrary to the general view of lack of follow up and supervision, one man from this committee said that the follow up from above was in order.

Lack of transparency and accountability, especially in issues relating to finances, was mentioned as a factor hindering participation (by nine groups). Both members of the headquarters staff agreed,

Lack of transparency has hindered participation, and especially if the people that have a vision of knowledge are not accountable and not transparent, then it is a problem because the community will not be able to participate as they think that they are being taken for a ride.

A man from the sublocational committee mentioned how lack of transparency in decision making had caused some community members to wait for training in Kwale for one week, and finally they were told to return home. He explained, "we are not happy working with them (the district PANS team), but we are just here". The dispensary nurse from the intervention area told how the community themselves were not transparent, especially when it came to distribution of resources. He said, "when it comes to harvesting, there might be some lack of transparency. You find them (the women groups) quarrelling and the group might collapse. So such things might bring problems (in participating)". He went on to recommend that the donors should handle the cash themselves. All members of the male group interviewed agreed with this recommendation, and said, "if we want to build a house, don't give us money. You will not have helped us, because we will use that money in other ways, like drinking". Even leaders were not transparent. In the process of distributing relief food, it was explained how a leader was found to favour certain people. A man from the mixed community group said,

Instead of serving the same portion to each and every person who has a malnourished child, he (*the leader*) may give one kilo to one person and more to another. This discourage the affected (*people*) and hinder participation, it really discourages.

The TBAs mention lack of transparency in the election of village chairmen and other local leaders as a problem, which had hindered participation. One woman said,

They (the GoK administration such as the chiefs and sub chiefs) choose their friends, who maybe are inexperienced, and this hinder good participation.... I think they (the administration) should be more careful in managing the cash because what they do, it is not transparent.

The transparent election of accountable community groups/committees structures was said by district and divisional PANS teams, and the dispensary nurse (intervention area), to be very important. Contrary to what was expressed initially during interviews, one member of the divisional PANS team and the dispensary nurse from the intervention area showed self-interest in such elections. The dispensary nurse from the intervention area said, "I will let them (the community) identify committee members and choose their leaders. First the chairman and whatever, then I know that the members can not talk about me". Later he admitted that he had given the community the names of the people that they should elect as leaders, so then they can know that these are the leaders, and it can be easy for them (the leader) to reach me".

One man from the divisional PANS team thought that the community should not be allowed to have their own leaders as, "these (the community's own leaders) give different advice and make the community change their minds. So it's good to advise them (the community) not to have other separate leaders".

Focus group discussion with the mixed community group revealed that former failures of programmes could cause de-motivation and would hinder participation in new programmes. However, the basic problem was *conflicts*, such as conflicts of interest between different groups (religion, ethnicity, social, economic, gender, age), conflicts of interest between different tiers of the administrative systems and the underlying conflicts of power. This was explained by a man from the dispensary committee (intervention area) who said,

the truth is, people have different ways and ability of understanding things. If you understand something better than others, and maybe you want to share with others, some may ask, "who are you"? Yes, you have told them who you are, but later they ignore you. They will not participate.

A female member from the mixed community group said, "people don't get along due to ill motives amongst us and they discourage other people due to their own minor reason. If a person has a problem with another, he goes spreading rumours until finally few people are left to participate". This was confirmed by the TBAs, the CHWs and members of the male groups who explained, "some people give false stories and ill feeling to the leaders and create bad blood between us".

Illiteracy/gender: The third theme was illiteracy. Three groups stressed that illiteracy caused poor participation. A female district PANS team member said, "what has contributed to poor participation is the literacy level. It is the cause of all, low education" and a member of the male community group confirmed this, but said, "it can't all be blamed on illiteracy". The causes of illiteracy in these communities emerged as socio-cultural issues and poverty. Both headquarters staff and the district PANS team ascribed socio-cultural issues to be the cause of poor participation, but while the HQ staff referred to harsh climatic condition and nomadic culture, the district PANS team referred to religious and gender issues causing poor participation.

Gender was the main issue blocking participation according to the divisional PANS team. As one woman explained, "women are not even participating, because in the community they are not allowed to speak. All the time women are at the back, and only men are contributing. That is a problem". Another man added,

there was this tool of gender analysis that showed how men owed most things in the community. It was hard for the men to accept that the women also have rights to ownership, but later, after some arguments, we came to an agreement that women also have a share in the things they own.

The dispensary nurse from the intervention area agreed that *gender issues* were very important in hindering participation and insisted it was better to separate men and women completely during the whole process of participation. He said,

you see, men are sometimes like, they are like children actually, but they need a place where they can find their ways. But also women have problems, such as a man not allowing the women to go and mix with other. So we usually don't mix them.

At first all the members from the dispensary committee in the non-intervention area had the same opinion, "the number of men participating is most of the time bigger than the number of female. The Muslim *culture* does not allow the women to be leaders in any way". But then this was opposed by another woman who said:

Not all husbands are like that. When I was elected, I was not present at that particular meeting, and after a few days I was sent a letter telling that I was elected as a committee member. My husband was with me at the time. In fact he was happy about it. Since then I have been doing well.

The whole group cheered and clapped for that statement.

The last issue causing illiteracy was *poverty*. The headquarters staff (females) mention poverty as a factor hindering participation, and said, "these communities are poor. They may not know whether there are resources that can be tapped and used for their benefit".

Insufficient resources: This sub-category was related to *poverty, illiteracy* and *time* but also covered areas such as *technical know-how, human resources* and *logistics*. Five focus groups mentioned insufficient resources hindering participation. Headquarters staff said that the PANS process was expensive and involving, and due to low staff capacity there were never enough fully qualified facilitators, and therefore the quality of this process had suffered. The district PANS team agreed that poor staff capacity and lack of transport for the facilitation teams could cause poor participation.

Furthermore, frequent staff transfers had hindered professional facilitation of the PANS process, which required deep and vast knowledge, skill and attitude of technical and social-cultural issues. New officers are often insecure and therefore tend to take control instead of facilitating. In such cases the community will get discouraged and give up (said by the man from the dispensary committee (non-intervention area)).

In other cases the trained community members (*TBAs and CHWs*) were not given recognition, such as post-training certificate, by the training institution (*GoK and/or donor*). This meant that they (*CHWs and TBAs*) would face problems practicing their skills in the community after the training due to lack of acknowledgement.

The community considered *time* the biggest resource, and lack of it could cause poor participation. Going to meeting would cut down on the time spent on businesses, and therefore some, especially the men, were reluctant to participate. This was clearly pointed out by the women from the community group, who said,

you know, to take part in this project, one must sacrifice a lot of his/her time. The economy is not very good. So you will find that some people do not have

time because they do casual work whereby they get enough money to feed their family for only one day. The next day the same happens. So you find we don't really have time to work on these projects.

Apparently the PANS process had started in 1998, but funding were not made available before 2001, so as stated by a man from the sublocational committee, "by the time the funding was brought, most of the community had already given up. They waited and waited till they gave up". Insufficient technical back-stopping (both amount and quality) hindered participation. Material (*cement*) had been wasted through late delivery, and the work done by the community had therefore been in vain. A man from the divisional PANS team explained that, "this problem was due to top-down decision making for allowances and transport allocation and time allocated in the community". Therefore technical officers were not able (*or willing?*) to go and follow up (*especially so for the staff from the Ministry of Water*).

9.3 Outcomes of participation

The fact that participation and empowerment are part of development activities and considered both processes and outcomes (see section 2.1.5, figure 2.4) motivated me to find out how the community perceived the outcomes of the PANS process.

9.3.1 Outcomes: The five main outcome factors were identified as: 1) decreased malnutrition; 2) better educational status; 3) gender equality; 4) better access to resources; and 5) better employment opportunities.

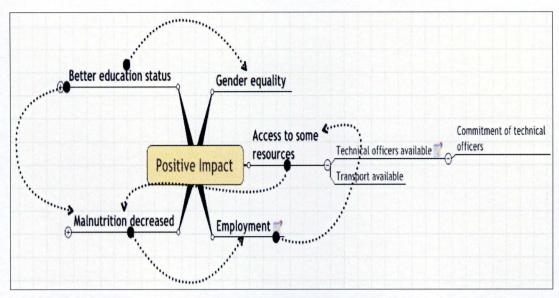


Figure 9.3: Factors contributing to positive outcomes after implementation of the PANS process.

Decreased malnutrition: The aim of the PANS process was to decrease malnutrition. Eleven of the interviewed groups claimed that there had been some positive changes observed over time in the health and nutritional status of the population, and especially in the children under five years. The strongest comment was from the dispensary committee in the intervention area. One man said, "before in our village, you couldn't pass three houses before seeing a malnourished kid because kwashiorkor was all over, but now it is very rare, and the parents have knowledge on how to take care of the children".

The main reason for malnutrition in this area was given as intrusion of wild animals into the community shambas. The crop was eaten by elephants and monkeys from the nearby game park. The fact that electrical fences had been erected by the wildlife department and the shambas were now protected had resulted in food availability and decreased malnutrition. However, this was contested by the women. They stated that these traps for the wild animals and the fence had helped little; diseases were still very common and had not changed. But according to the TBAs and CHWs, access to services had improved, such as access to growth monitoring clinics and ante-periand post-natal care (before there were three and now there are seven growth monitoring clinics and TBAs centres). But these services were not permanent and some had collapsed as explained by the dispensary nurse from the intervention area.

He said, "now there are three functioning and four have collapsed". This happened since January 2004 when the Minister for Health announced that services at dispensary level and below were to be given free, and the community health and nutrition workers could therefore not charge the little fee they used to.

Other factors: It was obvious from the interviews with district, divisional and subchiefs that they felt that the *status of women had improved*, and women were now much more active in decision making processes, such as participating in meetings (*Barazas*), representing themselves on committees and being more outspoken. This was partly due to the increased literacy level, which the subchief in the non-intervention area ascribed to the GoK adult literacy programme, but also due to the PANS process itself. One man from the district PANS team told,

previously you would see a man on a safari and he just carried a stick, and the wife carried a load on her head, a child on her back and held another child in her hand. But today, with the younger generation you would find the men carrying a child on the shoulders and walk with the wife. So at least they have understood the importance of sharing the life skills and duties in the community.

Another outcome was the *increased employment opportunities* due to the knowledge gained by the community. Eleven of the 15 groups/key informants interviewed mentioned knowledge and thrust gain as a positive impact. The dispensary nurse in the intervention area explained how the community themselves have gained more knowledge and how they consulted the trained TBAs and CHWs instead of coming directly to the dispensary with their problems. He had observed that the environmental health had improved and gave examples, such as erection of dish racks and kitchen gardens around the houses, cleaner households and an effort to eradicate mosquito breeding places.

However, all members of the women groups disagreed and mentioned that ante-perinatal care was problematic, and they often had to be transported – and at times too late – to the nearest dispensary/hospital for delivery. Another indication of knowledge gain was the theatre groups (*Participatory Educational Theatre*) trained and now spreading knowledge about preventive/promotive (health) care, including HIV/AIDS

prevention. However, all groups and persons interviewed felt that more health education and knowledge were necessary.

Access to resources had increased due to the PANS process. This was explained by the construction of the nursery school and one more primary school. The income of the community had gone up, partly due to the knowledge and partly due to better health status (said by the subchief (intervention area)). In addition, the technical officers from the GoK were more accessible and available than before (a comment from a TBA).

9.4 Summary and conclusion

This chapter has aimed to summarise the factors facilitating or hindering the process and outcome of participation. Data from 15 key informant interviews, focus group discussions and observation have been analysed to illuminate the facilitating and hindering factors (process) and outcome on participation. The data from the interviews showed that the most important factor for the process of participation was building congruence, effective management and matching the expectation to the reality, a process often steered by "gatekeepers".

Underlying factors to consider for effective participation were community entry skills leading to congruence-social cohesion building and ownership of both process and outcome, motivation of stakeholders, which mostly referred to GoK technical staff, access to timely and relevant information that can ensure transparency and accountability and development of a role model influencing policies of social justice and its enforcement (equity and equality). Interestingly, some group members felt it was important to receive hand-outs and force people to participate.

The main factors that can hinder such a process were believed to be horizontal and vertical power structures, both within the GoK system and within the communities themselves, cultural believes and value system re-enforcing gender inequalities. These factors both contributed to and were affected by conflicts.

The impact of participation was seen mainly to be a change in health and nutritional status, which was related to better education, access to resources and a more equitable society.

PART V: SYNTHESIS AND STUDY IMPLICATIONS

Participatory intervention has recently been shown to have health development impacts, both in the CBNP program in Makueni, and in other part of the world (Gnanasegaran, 2000; Hailey, 2001; Malhotra et al., 2005; Laverack, In press). However, none of the studies have carefully examined the preconditions for such positive outcomes. These preconditions are related to the definition of participation which will inform development thinking, writing and implementation in different contexts.

Furthermore, I have argued that the scarcity of documented evidence on the benefits of participatory methods, and factors contributing to these benefits at operational, strategy and policy levels are based on a lack of sound assessment tools and methods. This justifies the search for more well-designed studies developing assessment tools and methods for participation and documenting the outcome and exploring factors contributing to such outcomes. Since participation aims to empower stakeholders and increase the impact of development initiatives for improved outcomes such as better health and nutrition I have also argued that there is a need to assess the effectiveness of participation, both at process and outcome levels. This study is a contribution to the fulfilment of these needs.

This concluding part of the thesis is divided into two chapters. Chapter 8 provides a synthesis of the findings and discusses these in relation to the relevant literature and my own experiences. Chapter 10 draws out the implications of the findings, makes recommendations at operational, strategy and policy levels and summarises my own reflections of the research process and its findings. The two chapters follow the sequence of the research questions presented in Chapter 1 and repeated below:

- 1. What does people's participation mean to different stakeholders from the community to the national and international levels?
- 2. How can people's participation in a health development programme be assessed?
- 3. What is the effectiveness of a participatory process in terms of health development?
- 4. What factors influence the outcomes of a participatory process to health development?

CHAPTER 10: TOWARDS A NEW FRAMEWORK FOR UNDERSTANDING PARTICIPATION AND MEASUREING ITS EFFECTIVENESS

This chapter summarises the main findings from the field study and discusses these in relation to the findings from the literature review and my own experiences. The chapter is divided into 4 sections according to each of the four research questions.

10.1 The meaning of people's participation - from the community to the national and international levels

This section examines different meanings given to participation using the four preconditions/arena shown in the model of participation in figure 2.2.1 of section 2.2.1. These four preconditions/arena are (i) domain (the attitudes/behaviours needed for personal change) (ii) locus (the sharing needed for institutional change) (iii) procedures (tools and methods needed for professional change) (iv) resources (access to control of the resource envelope).

10.1.1 Perception of participation

The working definition of participation developed in section 1.1.1 states that "participation is a process through which stakeholders have equal *right* to influence and share control over the development *cycle* and the decisions and resources which affect it". Comparing this definition with my findings from literature review, interviews, observation and visualisation revealed some interesting findings. They are described according to the four arenas mentioned above

Domain: Starting with the *domain* of participation (referring to attitude and behaviour) interpretation depends to a great extent on the aim and means of the end purpose. In the past the arguments for using participatory methods and tools, either as a means (efficiency) <u>or</u> as an end in itself (empowerment) have been blurred. I would argue that participation takes place in a politicised environment where participation can be both a means of achieving an outcome such as better health and also an end in itself leading to empowerment and possibly, but not necessarily, change (process and/or impact). Furthermore, these two ways of viewing participation can happen simultaneously and change purpose over time. Without the community's

understanding of issues and their willingness to participate, the use of participatory methodologies will not in itself win desired changes in the health sector, especially among population groups where traditional values and believe system still exist (Gerein, 1992).

I have argued that it remains to be seen how far participatory methodologies can overcome traditional resistance to the principles of "putting the last first" as agents of change, especially by those who do not share western assumptions. I contend that changing the minds of the power-holders ("gate-keepers") who often want to perceive participation as a means for development effectiveness will prove as formidable an obstacle to the implementation and scaling-up of participatory approaches as changing the structural, economic, social, legal and political conditions which impede their success.

Participatory methodologies are approaches and ideas, and these can be altered and implemented beyond recognition according to a facilitator's and system's own interest and benefits, whether value-based, financial or otherwise. For example, in Kenya there are villages where several PRAs have been undertaken within the same year but facilitated by different sectorial ministries and NGOs with different value system and expected outcomes. Sometimes it is even the same facilitators doing different tasks but just wearing another "sectorial hat" and earning daily allowances that are more than the monthly salaries of many local farmers and end-beneficiaries. PRA can easily become an income generating activity for facilitators and staff of agencies and governments. It is no wonder that these approaches have become so popular in government settings and one could argue that the underlying value-base is even lost.

My findings showed that the stakeholders' perception of participation was both a process and a means, "participation is like when you start a plan, you know that you are already participating; when you are talking about it you are already doing it". But participation always started with a focus that the community could relate to, in this case nutrition and malnutrition (congruence building). Contributing to and underpinning participation was consensus-social cohesion building, a process initially having empowerment as an end. But from the discussion with different community groups, including men and women, it emerged that complexity and conflicts were

focal points to be considered for participatory approaches to succeed, both as an end, a means and a right, and more so in heterogeneous communities. Moreover, there were contradictions between what was said and what was observed. Attitudes such as "what counts for you does not count for me" were depicted in an example of a government member of staff who felt that it was all right for the community to work free of charge, but not for GoK officers. This attitude was more pronounced in men than in women.

Leadership and role models were important for the domain arena. Characteristics, such as honesty, respect, love and care were mentioned as qualities of a good leader. I will argue that these qualities also count for good facilitators, who in some sense can be seen as 'role models.' The underlying reference points were ethics, values and beliefs.

Within the international literature values have increasingly become important, from involvement during the 1970s and 1980s with the Alma Ata declaration of primary health care to include *governance* and *power* issues in the 1990s and lastly, in the new millennium, to include human rights issues (Hickey and Mohan, 2004; Hickey and Mohan, 2005). The underlying philosophy continues to maintain a deep commitment to democratic consensus building which is value based. I will argue that these are the important foundations for problems and conflicts solving and consensus-social cohesion building leading to empowerment and ultimately to development effectiveness. Without these, participation will go nowhere.

Locus of participation: The second element, *locus* of participation (sharing) referred to coordination leading to coming together (usually for a purpose), and this purpose could be consensus-social cohesion building aimed at development effectiveness. Many of the community groups stated that without consensus building (for a successful goal) participation would go nowhere. For sharing to be effective, access to information was important. Despite being less involved in the participatory process and excluded due to cultural norms and belief systems, women were still more willing to share and contribute than men. I can take this statement further and argue that the willingness of women to share could be based in caring practices, cultures and norms, but it could also be based in a feeling of having achieved empowerment through

assets building, such as psychological, informational, organisational and financial assets, which could have been a contribution to collective action and reaching out for the power that they have been denied for so long. This was revealed in an example described by the dispensary nurse. He explained that the women had through sharing set up income generating groups which provided safety nets during social crisis, and it also provided them with "a body" that could play in intermediary role between the individual woman and the formal institutions and structures and thereby facilitate collective actions.

Procedures of participation: The third element is procedures of participation, referring to tools and methods. The interpretation of tools and methods depend to a great extent on both the objective of the end purpose and on how methods and tools are presented, by and to whom, when, where and why. Kane (2000) and Salmen and Kane (2006) refer to "non-rational" behaviour, important for the facilitator and the facilitation process. They argue that methods are behavioural and attitudinal which will affect the outcomes of facilitation. Tools and methods were mentioned by the different facilitation teams but with different importance. While some facilitators felt that the methods and tools were important as they could "open the house of the community" other felt that attitude and behaviour of the facilitators were more important than the tools themselves.

I would argue that participation takes place in a politicised environment where tools and methods can be the starting point of participation as a means of achieving an outcome, such as better health, but can also be an end in itself leading to empowerment and possibly, but not necessarily, change (process and/or impact). Practitioners of participatory approaches advocate the use of visualisation techniques. In the health sector this has as in other sectors been called Participatory Rural Appraisal (PRA) or Participatory Learning and Action (PLA) which presupposes a frame of mind about the end-users and their status in society, which is likely to be similar to perceived attitudes of most non-western cultures. This argument can be supported by examples such as questions about the perception of a ranking scale in non-western societies.

Resource envelop: The fourth and last element is the *resource envelope* ensuring that participation can take place. This element is hardly discussed in the literature. One reason could be that the cost obviously varies in different settings, and that authors writing about participation have been busy discussing its conceptual and paradigmatic foundation instead of taking a pragmatic approach. Recently, authors such as Laverack (2004) and Øyen (2002) have referred to its importance, and as the last author states, it is utopian and even ethically questionable to first raise expectations of poor rural communities and thereafter leave them *only* to plan with very few, if any, resources. This raises the whole question of incentives relating to participation. It is obvious that poor people's main resource is time and they invest this resource according to expected profit (incentives). "You should tell the purpose of the participation and how it will benefit us, because before we get involved we have to think of the outcome (profit)," was the remark from four of the groups interviewed, mainly males. But resources can be more than financial; it can be time, information, knowledge and education. I will claim that by avoiding assessing resource-needs, participation has been (mis)used by stakeholders, including governments, to escape its responsibilities to its citizens.

Whilst recognising that nobody "owns" or can give a quality trademark to participation, this has resulted in wastage of scarce resources, confusion and overlap. An example of this is the performance of topical versus general PRAs. Different sectorial PRAs have often contradicted each other, as have top down and bottom up approaches. Many authors (Cornwall, 2000a; Mohan, 2001) now accept that there must be some kind of guidance as to how participatory approaches are interpreted, implemented costed, monitored and re-adjusted in different sectors as well as how these approaches complement and compete with each other. Consequently, I have questioned the extent to which practice and theory are related. Participation is said to have succeeded in NGO settings (Laverack, 2004) but setting up parallel structures at unaffordable costs are not sustainable (see comments by the community and subchief in section 9.2.1).

For participation to succeed and for effective change to happen, participation has, at some point, to be planned for and "lived" within a country's officially recognised structures and its civil society. Furthermore, participation has to be accepted by the

market and its economic structures. But for this to happen end users have the right and responsibility to exacting accountability, not always happening without sanctions and conflict.

Having discussed the four preconditions for participation, I will now proceed to discuss the *enabling environment*. Laverack and Wallerstein (2001, p.129) divides these scenarios into supportive, uncooperative and unsupportive and contend that implementation strategies have to accept and adjust to these facts. In the worst-case scenario, poor people must use their last resort, which is the capacity to take collective action (protest, strike, revolt and insurgency) to ensure social justice.

Supporters of participatory approaches claim that participation is sufficiently flexible to adapt to different local circumstances and to be owned by those implementing it. I have argued that where participation is adapted to local circumstances there is a risk that the underlying philosophy is compromised. An example of this is where participation is turned into "facipulation" and used by power-holders or "gate-keepers" to manipulate their personal view into the final action consensus, the so-called Community Action Plans. Concerns for the weakest groups, such as minority ethnic groups, women and children, which are fundamental to the philosophy of participation and which promote partnership and equity, have not always been evident in practice. Many programmes lack an understanding of or adherence to, and an unwillingness to be responsible for, the underlying principles of participation. These principles are important as they challenge people to critical reflect, solve problems and conflicts, create solutions, monitor and re-adjust solutions over time. Instead so-called participation has been used to fit the political agenda of the day, whether social, economic, political or legal (Mosse, 1995; Goebel, 1998; Laverack, 2004).

Discussing the enabling environment cannot avoid to touch upon the change process, which is about confusion and complexity. The literature describing implementation of participatory approaches has not realistically taken this into account. The complexity and confusion are shown by the dichotomy of participation, which in one way is promoted as an innovative approach that should respect local diversity, custom and values, but on the other hand challenges traditional power and elite structures, both at local and higher levels of society. This dichotomy results in a conflict between the

ones that "have" (the powerful) and the ones that "do not have" (the powerless), and powerlessness resulting in feelings of hopelessness and despair. This balancing of respect for local diversity and democratic consensus building (governance), with a commitment to change in power structures, is in reality a sophisticated psychological and management change process. This is more easily understood in theory than realistically applied. Risk will always be prevailing, such as traditional assumptions about hierarchy, power and control structures.

The possibility of introducing some forms of vetting of participatory initiatives has been raised, but notions of control are not easily compatible with the ethos of participation. The participatory literature and training manuals have always made a point of promoting ownership of ideas, projects and programmes and encouraged people to use them in their own context by using their own best judgement at any time. Consequently, the accreditation of participatory processes has not yet been seriously considered. This raises more questions, such as, who should vet participation. I dare to ask, who has the capacity and authority to say what is right and wrong for somebody else, somewhere, often thinking so differently than one self? No satisfactory answer has been given yet.

10.1.2 A new framework for understanding participation

Having compared how the stakeholders who participated in the field study viewed participation to the views found in the literature I will now suggest a revised and improved framework for understanding participation as shown in figure 10.1.

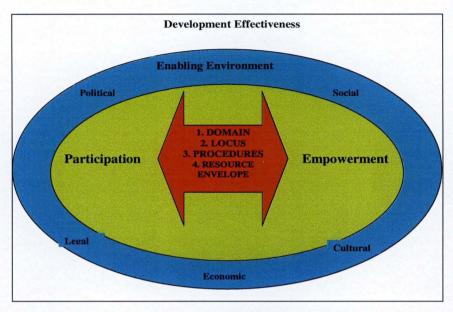


Figure 10.1: Revised framework for participation and empowerment.

This framework contains all the preconditions and arenas (shown in red) needed for a successful interface between participation and empowerment (shown in green in figure 8.1). It goes further however, by recognising that these 4 central factors are not enough to ensure development effectiveness. For this to happen we must realise that both participation and empowerment are embedded in an environment, which is social, cultural, economic, legal, political and can either support or hinder the processes leading to development effectiveness (shown in blue in figure 10.1). This model is an important and original contribution to the literature on participation. It shows that participation can lead to development effectiveness, either directly (such as emphasis on output in figure 2.4 of section 2.1.5) or through empowerment (such as emphasis on process in figure 2.4 of section 2.1.5) by ensuring that all arenas are fulfilled. In both instances the enabling environment in which this happen is important and must be considered.

10.1.3 Revised framework applied to the CBNP experiences in Kenya

Within the Community Based Nutrition Programme participation has been defined as, "the active involvement of stakeholders in assessing their situation and taking action geared at positive change" (GOK/OVPMHAHS, 2002). This definition is still informed by the old perception of participation dating back to the Alma Ata period where participation referred to involvement rather than participation based on rights. I

have further argued that all the general criticism of participation can be applied to the CBNP and its PANS process. I contend that a fundamental change of mind regarding the role and responsibilities of the programme management and its facilitators has to happen for an effective development outcome.

Although this study did not find evidence of development effectiveness defined in quantitative terms, there is evidence that "role models" or "champions" are emerging within the GoK system. This system is generally not conducive for "handing over the stick" and taking an active responsible part in the future (Muthengi, Speight and Kilalo, 2001). Since the programme changed it's name to Community Capacity Support Programme (CSSP), capacity building is now seen as an end in itself. I will argue that this shift of name has resulted in an unavoidable change in approach – one that could even be called a paradigm shift. This shift towards a didactic perception of participation (as capacity building only), leaves the programme's approach open to criticism and confusion, which was exemplified by CBNP Headquarters staff claiming, "we don't understand capacity building and its purpose". The confusion was complete when the end users themselves asked this same question. Another change in the CSSP approach was the exclusion of any focus on health and nutrition.

In line with my arguments of incentives, social cohesion/congruence building and inclusion of both process and outcome for ensuring sustainable development, the focus on process (capacity) *only* could lead to confusion and lack of congruence among the stakeholders. I am not arguing that we should "throw the baby out with the bathwater" and avoid initiatives like the PANS process. On the contrary, in line with Eyben (2004), I will argue that there is a great need and demand for such initiatives that learn from the past and prove themselves, not as alternatives to, but complementing to ongoing development initiatives. Combining these two approaches will form a holistic approach to development promoting the right of stakeholders to participate and promote equality of opportunity as well as an environment that is positive towards reflective thinking and adjustments. I have argued that the hardest question is how far the power holders are willing to look at themselves with a critical ethical mind and "fail forward". This demands a level of courage that is hardly seen in the political arena of today's world development agenda and will demand that

children, women and men at the grassroots level overcome their fears and demand their rights.

10.2 Assessing people's participation in health development

The new framework for understanding participation given in figure 10.1 shows that it is important to understand the timing of participation and the enabling economic, social, policy and legal environment at the micro, meso, and macro level, and this involves focussing on power relationships. It is only *then* that we can begin to appreciate the place of participation in the overall health development process, from personal, professional, organisational and resource points of view. For this change to be effective, efficient and sustainable, I have argued that both process and output are needed, but very few, if any, monitoring tools and systems are able to adequately assess both. More often than not only output (impact) is measured in quantitative terms while process assessment and costing of these approaches are left out.

Based on the framework proposed in figure 10.1 this study presents the results of a pilot study that aimed to develop methods, tools and procedures to collect and analyses data from which to evaluate the health development process used by the AKF project. The pilot study demonstrated that the tools and methods developed were useful for finding out how much people felt they had participated in each step of the participatory process and which step in the process they felt had contributed to empowerment. However, it is important to mention that these tools were highly contextualised – they were used and interpreted in the appropriate socio-cultural-political and economic context and timing. Below are some of the considerations gained during the development of these innovative tools and methods.

My knowledge and understanding of both the Kenyan Government's administrative system and the Kiswahili language and culture proved invaluable for getting access to and being accepted by the community in which this field study took place. However, there was a need for translation and back-translation to Kiswahili from the ethnic languages (Duruma and Digo) spoken in the pilot and field study areas. When ethical issues emerged, it proved important to have both Kiswahili and Duruma-speaking

insiders and outsiders on the research team as these people could translate not only words but also contextual meanings.

In assessing the effectiveness of participation, and especially in relation to the question about gaining and losing, gender issues became important. I tried to have a gender balance both in the research team and among the interviewees. However, the fact that men were very reluctant to participate could have biased the results. In addition, it was difficult to control gatekeepers, especially during the data collection process, because they controlled my access to the community. Some gatekeepers saw financial gains and did not inform the community of the date and venue for *barazas* (community meetings). This could have explained the relatively low attendance rate during the pilot phase.

The strength of the tools was that they were developed in a way allowing for the needs and demands of the respondents as well as the research team. For example, the use of simple local language and use of local idioms to explain concepts were important, as were appropriate timing and good communication skills of the facilitators for getting access, being accepted and being listened to. Another strength relating to the use of these tools was the fact that some members of the research team were chosen from within the selected villages (two to four village research coordinators from each village). These people were known in the villages and could use their own local language and locally available materials, which made the assessment process inexpensive and easy to understand. I will argue that the selection of this particular mix of research team has decreased a possible Hawthorne effect.

The weaknesses of the tools were that, initially, the concepts of participation and empowerment proved difficult to explain to the communities. This affected the villagers understanding and was especially seen to cause problems for the elderly and for some of the younger illiterate women who participated in the pilot phase. At times they did not understand the concepts, got bored and went away. Moreover, the younger illiterate women did not speak for fear of being misunderstood. The research team became aware of this fact and tried their best to involve the silent participants by using local idioms.

Although the participatory exercise did not take more than one hour, this proved to be long, especially for women with children. These powerful processes also provoked conflicts. An example was an unforeseen issue during the identification of the health development process in the pilot phase. The two religious groups had different perspectives of who was doing what in the village and reaching consensus became a problem. The different views were recorded and re-addressed by the research team during a follow-up meeting and the different religious groups thereafter reached agreement.

My own presence as a researcher from a different ethnic background and higher social status was initially a problem. First and foremost, this was because I was introduced as a medical doctor and not as a researcher, which meant that I was viewed according to my socio-cultural and medical profession and its equivalent status. This could have biased the result.

Assessing participation was stated to be important for different stakeholders, and more so for the people at the lower levels of the administrative system. Although they found this assessment important and meaningful, none of the people interviewed had ever tried to assess or critically reflect and challenge authority. Instead, when asked, they referred to participation as quantitative indicators, repeating what was written in workshop manuals.

What appears to come out of the field study are that the tools and methods developed are useful and important but careful attention needs to be paid to the precise wording (and translation) of research questions, the context in which they are used by whom and for what. The findings also suggest that with some minor modifications these tools can become a quick, cheap and easy way for the community, government, donors and NGOs to assess stakeholder participation and empowerment.

10.3 The effectiveness of the Participatory Approach in terms of health development to Nutrition Security (PANS)

The field study examined the effectiveness of the Participatory Approach to Nutrition Security known as the PANS process in changing the nutrition and health status of under five year olds in the communities studied in Kenya. For participation to be effective I have argued that the four arenas, and both process and outcomes of participation are important elements as well as the enabling environment. The analysis below will describe the effectiveness of the participatory (PANS) process based on: 1) the health and nutrition survey (structured questionnaire), 2) anthropometry, 3) the representation and 4) spider diagram developed during the pilot study.

Health and Nutrition survey: Starting with the descriptive survey data, it was obvious that the intervention community had smaller families and more single mothers than the control community. There were also significantly more women who married under the legal age of 18 years. It is well known that pregnancy and childbirth in adolescent females are often life threatening events, not only for the mothers but also for the newborns. The reason is that teenage mothers are not fully developed emotionally and physically and therefore have a poorer prognosis than older women (ICRW, 2005).

Looking at the education and poverty factors in relation to nutrition, the literature shows that poverty is associated with malnutrition (Schellenberg et al., 2003; Eyben, 2004) and lack of education of the both father (Checkley et al., 2004) and mothers (http://www.unfpa.org/swp/2002/english/ch7/page4.htm last accessed the 20th of January, 2006). This fact is important to note when discussing implications. As suggested by Alderman, Hoogeveen and Rossi (2005) there is persistence in nutritional status across generations, meaning that improving the nutritional status of the current generation also improves the welfare of future generations.

In addition to parental nutrition, which promotes the nutrition of young children, the non-intervention community was more homogeneous (with respect to religion, ethnicity, vision) and were more cohesive than the intervention community. The lack of social cohesion (social capital) in heterogeneous communities may make it difficult for families to feed their children effectively during times of stress because social networks, known to be important in child health, nutrition and development, are broken. The absence of strong social networks in the intervention community (especially among the Giriama people), could have been a factor in the shorter stature of the children in this particular group. This endorses the views put forward in the

2004 World Development Report (2004c) and by Stiglitz (2002) that consensus building is much slower and more complicated in a heterogeneous community, such as that of the intervention area.

Anthropometry: It is a pity that the intervention and control groups were not well matched. Although a detailed assessment of socio-economic and demographic indicators was carried out before the start of the survey, further detailed analysis later showed considerable important social, economic, demographic and educational differences between the intervention and control groups and therefore no quantitative inferences of the effectiveness of the PANS process between intervention and non-intervention area could be drawn. The only feasible analysis comparing nutritional status at baseline in 1995 with the follow up survey in 2003 showed that severe stunting had significantly deteriorated. When looking at section 8.2.2 figure 8.3 and 8.4, this could possibly be explained by the immigration of the Giriama ethnic group into the intervention area. Not only had this ethnic groups significantly lower nutrition status but they were also considered "strangers" in this community, living like squatters and excluded from information and public resources and goods. I will argue that they were the 'hard-core' poor that are difficult to reach, even with an overall improvement in the standard of living.

Representation: Despite a good impression of the programme held by GoK staff and leaders, only 1.2 percent of the households had participated in any of the steps of the PANS process in the intervention area. This figure gives cause for concern - it is very low. Not only was the participation poor in numbers but also the people turning up were largely self-selected, an observation supported by interviews during the household survey. If we compare representation in this study with the representation in the CBNP pilot area of Makueni there was a huge difference. One explanation could again be that the community in Makueni was more homogeneous and cohesive.

Spider diagram: An important finding from this study is that the participation and empowerment scores were lower at community level (see section 6.3.2, figure 6.16) and that the depth of participation increased gradually from community level (scoring 84) to sublocational level (scoring 148) to divisional and district level and last to headquarters level (scoring 276). The pattern for empowerment was similar.

Transferring the scores to spider diagrams showed that the irregularity increased from central to community level. While the community had the most erratic diagram and had scores of zero or close to zero for the initiation and finalisation of the PANS process the spider diagram of the central level was regular and had equal score for all spokes (steps in the PANS process).

Despite the intention of the PANS process to create stakeholder participation and empowerment at the lowest levels, the opposite had happened! The people who had benefited most from the PANS process, both with regard to participation and empowerment, were the people located highest in the GoK system, the power holders and/or gatekeepers. This might not in itself be negative as participation and empowerment from above is required for scaling up participatory approaches. Ensuring that people at central level give space, act as champion for change and support a critical mass of participation from below had happened in the CBNP. This is indicated by the qualitative data which showed that the impact of good participation was seen to be a perceived change in health and nutritional status by the community.

Participation, facilitated by an intersectorial team of GoK staff, had resulted in perceived better education, which could explain greater gender equality (representation), access to resources, employment opportunities, and decreased malnutrition. This could imply that even with minimal participation of 1.2 percent, change could still happen. These findings suggest that despite the low level of participation, the presence of power brokers/gatekeepers and a heterogeneous society, there were (as expressed by several groups, men and women), some changes happening, such as assets building (informational, organisational, financial and human) but this change was slow. As expressed by some community members, the CBNP had been a door opener for other development activities and organisations to initiate change.

For change to happen we might need to focus as much on the elite actors and their interactions at central level as on the environment they produce at community level. We have to acknowledge champions/gate-keepers and their ability to utilize issues, positively or negatively. As much as elite capture has to be avoided, the right of those vulnerable has to be protected (Nyamu-Musembi and Musyoki, 2004b). Lastly

responsibilities – both financial and logistics – should not be transferred to weak and vulnerable groups that do not have the capacity to lift that burden.

10.4. Factors the influence the outcomes of a participatory process to health development

The first part of this section refers to factors facilitating participation and the second to hindering factors. Data from 15 key interviews and observation showed that the most important factors for facilitating the participatory process were social cohesion and building congruence (social marketing) between expectation and reality, and realising the importance of the homogeneity. Social cohesion and congruence building were apparently very different in the homogeneous community in Makueni and the heterogeneous community in Kwale. In the pilot area of CBNP, Makueni District, community entry had been relatively easy and development effectiveness has proven possible. In Kwale congruence building seems a longer and more complicated process. While social marketing (the first step of the PANS process) had facilitated congruence building in Makueni, additional factors such as access to timely and relevant information, facilitation by 'role models,' dealing with conflict and creating an enabling environment were required in Kwale. This study indicated that the link between participation and the change process was good leadership and role models (champions doing advocacy of best practices), whereas the notion of a good leader was varied. Role models with "empathy" are known to be motivated and able to effectively manage the participatory process often steered by gatekeepers (Ong, 1996), and this study also indicated that the link between change and health development effectiveness could be social cohesion/homogeneity. All these findings highlight the important roles of vehicles of change (the leaders and gatekeepers as noted by Mosse (1995; 2001)) and of assessment of social cohesion and community homogeneity prior to interventions.

The most important underlying factor hindering participation was conflict. This conflict resulted from the beneficiaries receiving misinformation or incorrect, irrelevant and outdated information. There were also difficulties over the construction of meaning. Direct communications between the end-beneficiaries and the knowledge (power) holders had to pass through gatekeepers who were often the chiefs and the

subchief or formal and informal leaders. Unfortunately, in the Kenyan context, where the administrative democratic systems do not reinforce transparency and accountability, a good leader is more the exception than the norm. Although communication systems and procedures were in place in the CBNP programme, implementation procedures can reaffirm existing identities and power structures.

When it comes to gender, conflict may have been increased by decreasing subordination of women resulting from gender analysis and training by the CBNP. It is known that poverty and nutrition/malnutrition interact and this interaction is influenced by the degree and form of subordination of the poor, often women. Many of the women interviewed did not think that any change had occurred. However, through the gender training of the programme women had gained representation on different committees, organised themselves into saving clubs for social security and were more often able to speak up in public meetings. These are all signs of assets building which are important for participation and empowerment.

Effective management, participation and empowerment have rarely been related to each other, but this study showed that within the Kenyan context, bureaucratic support and management was important for some kind of planning and for planned changes to happen. The question is then, whether changes can be planned, and if so, to what degree. Foster (2001) states that in complex systems, strategies emerge that cannot be planned in advance and that these strategies often emerge from ordinary conversations which people have every day. She goes on to explain that change processes operate through self-organising processes when patterns emerge from disorder and chaos. Human beings interact with each other by having conversations and relationships; hence relationships (social capital/cohesion) are crucial for organisation and change (Foster, 2001). If sustainable development is to succeed, control and being static are not possible in these complex systems.

Change can happen at the micro level but for organisational change to happen there must be bureaucratic structures supporting these changes. The role of bureaucracies and their support for or barriers to community participation have not been well studied. Some studies indicate that bureaucracies supporting community participation motivate citizens to take responsibilities (Abelson et al., 1995; Nyamu-Musembi and

Musyoki, 2004b). However, other studies indicate that less structured and formal health systems promote citizens not to assume responsibilities beyond advising programme staff and rely on traditional bureaucratic, professional and political decision-makers (Lomas, 1997). Boyce (2002) has argued that there are four categories of bureaucratic influences important for community participation. These are: structural issues, priority setting, resources and administrative systems. One of the structural issues that could facilitate participation raised by Boyce is whether there are people who are able to move through social institutions and create space from outside (champions). Having persons who are grounded and aware of current social, economic and political health issues at the grassroots, and who are also accepted at different levels of the bureaucratic system and able to move between and within them, can translate the needs and demands of the communities into important policy decisions. Such persons could be empowered headquarters staffs who have sufficient knowledge and skills of participatory methodology and an attitude that will promote change, especially at higher GoK tiers. It could also be local members of parliament who would be committed to voice the concern of the excluded at central level.

In summary, it seems that the underlying factors for effective community participation are social cohesion and homogeneous communities supported by enabling economic, social, cultural, legal and political environment. The vehicle for this to happen is champion who can move between and within the communities and promote social justice and equal access to quality health care.

10.5 Summary and conclusion

This chapter has highlighted the main findings from the field study in relation to the 4 research questions. The importance of defining participation, including certain minimum quality arenas (domain, locus, procedures of participation and resource envelope) has been outlined. A revised framework for participation and its relationship to empowerment and development effectiveness is suggested. This framework locates the four arenas and opportunity structures within an enabling environment for effective development and this framework has been sued to assess the CBNP's PANS process for health development outcomes.

The chapter has demonstrated how the tools for assessing participation and empowerment, developed and tested in the pilot field study, were used in the main study to assess participation and empowerment. With little modification these tools are now ready to be used on a larger scale for measuring health development processes.

The outcome parameters, the effectiveness of participation, were explained in quantitative and qualitative terms. Unfortunately, inference could not be drawn as the two geographical areas, intervention and non-intervention, were not comparable but the analysis of nutritional status over time indicated that while the overall nutritional trend remained unchanged, severe stunting had deteriorated. This decline could be explained by an ethnic group, the 'hard-core' poor, moving into the intervention sublocation. This also increased the level of heterogeneity and distorted social cohesion of the intervention sublocation.

Looking at the qualitative indicators, participation and empowerment, it is interesting to note that GoK officers higher up in the system had increased their level of participation relative to the community. This was not the intention of the CBNP but it is important for the scope and upscaling of participation. Also important is the role of champions that can translate the needs and demands of the communities into important policy decisions.

But the main lesson is that social cohesion leading to congruence building and homogeneity and the enabling environment must be considered and assessed prior to the start of a participatory development intervention and champions identified that can make a difference such as the right people at the right time for the right purpose.

CHAPTER 11: STUDY IMPLICATIONS AND THE WAY FORWARD

Introduction

This final chapter draws out the implication of this study for the operational, strategy and policy levels. After highlighting the study implications and the way forward, my own reflections of the methods used and the study process are discussed. Lastly, I present some possible ways of disseminating the findings to a wider audience.

11.1 Implications

This study has increased my own, and hopefully others, understanding of participation and empowerment. It will contribute to a better understanding and further development of methods and tools for assessing participation, empowerment and effective change in nutrition- and health development. The tools developed and tested in this study could, for example, be used by the CBNP to assess participation, pre- and post-intervention and over time, in other districts and compare this with change in nutritional indicators. They could also be used by communities themselves to assess their performance.

The study has contributed to increasing knowledge of improved implementation strategies for participatory interventions in the health sector and thereby helped to fill the gap between rhetoric and practice noted in Chapter 2. The need to pay more attention to social cohesion and congruence building when implementing a participatory project/programme cannot be over-emphasised. Highlighted also is the importance of the local adaptation of participation and its assessment tools, and the indepth analysis of intervention and non-intervention area prior to assessment studies.

I will argue that minimum quality factors (arenas/preconditions) and an enabling environment as shown in the revised framework of participation given in figure 10.1 have to be in place before an approach can be said to be participatory and potentially effective.

Another contribution to knowledge building is the explanation of how sophisticated concepts can be and are (mis)understood and (mis)interpreted in different contexts.

Concepts such as consensus building and rights are some examples, but their underlying assumption – consensus building relying on a certain degree of homogeneity while rights relying on the individual – are not always compatible.

11.1.1 Operational level

For the community: The findings from this study have nutrition and health implications for the community. Despite the low level of community participation in the PANS process identified by this study, there were signs of assets building by the weakest groups, such as psychological assets (the women were overcoming their cultural barriers of sub-ordination), informational assets (increased access to timely and relevant information), organisational assets (group formation for common goods, such as health services), and some degree of material, financial and human asset (knowledge and skill building through training which has given employment opportunities).

Performing the role as committee members, such as the TBAs and CHWs (trained by CBNP), resulted in benefits in their own right. These benefits could have substantial implications for future programming (the CBNP is a door opener for other projects), spill-over effects and scaling-up. This is important for negotiation processes. The collective action means that it is not each vulnerable individual that has to respond more powerfully but that collective action through local institutions or 'bodies' (such as self-help groups, women groups, theatre and Child-to-Child clubs) can facilitate a change in relationship between the power holders and end-users of services.

An important implication of this study is that acceptable "role models" (champions) within the community need to be identified, documented, disseminated and promoted. When discrimination against women is prevalent, so is poor nutrition, regardless of economic growth. I have argued that this is a problem that needs to be addressed within a larger debate on social organisation involving other role models, as well as formal and non-formal leaders. There is considerable evidence that knowledge and information are necessary to effect change in health and nutrition, but not sufficient on their to effect behaviour change (http://www.worldbank.org/participation/s&pa/spaccount.htm accessed 13th of September 2004) (WB, 2004c). Building an evidence base, going public, building coalition and rallying support for change are as important. Consequently, enabling environmental factors such as having champions within the GoK system that can change the opportunity structures were important. As stated by WHO (2002) knowledge and confidence building by the community members become more important with the increasing recognition of the structural and system changes in the health and social sectors.

The fundamental reason for the unwillingness to participate, especially by men, was the lack of so-called proven benefits or incentives. One lesson learned is that entry skills into the community are important. Assessing social cohesion, homogeneity, building congruence and consensus and explaining the objective and possible positive outcomes (incentives) of such a process are as important as the processes themselves. CBNP in their future up-scaling will have to consider these issues.

I have argued that a western conceptualisation of participation lends itself to being misunderstood in different cultural settings. One example is when participatory approaches are practiced in religious societies with strong cultural bonds, such as those in this field study, where the role of women is perceived very differently from the western view on gender. When participation challenges deep-rooted norms, the undertone of traditional assumption is likely to be pulling against the direction of participatory change. The implications are that participation must take greater account of the extent to which it has worked with this western frame of mind and must recognise more seriously the degree to which the mind of culture and religion will resist aspects of its approach. Participatory approaches must investigate how far its essential core elements – what I have called arenas (preconditions) – can be assimilated within such different cultures and environments. Only then will we see if the participatory ethos and pragmatic approach to participatory development are effective and sustainable, both in qualitative and/or quantitative terms.

11.1.2 Strategy level

For the Community Based Nutrition Programme: The high ideals which the CBNP upholds are clear and compelling and in line with many NGOs implementing participatory approaches in different sectors in Kenya. For the time being the programme may have to settle for a reality which is a long way short of these ideals

due to the lack of capacity at different level of the GoK system. Nevertheless, attempts must be made to implement quality participatory approaches, not only for its own sake, such as being faithful to its own tenets and that of the overriding ethical principles of human rights and dignity, but also for being honest towards a development discourse that promotes the basic human rights conventions. It is interesting to note that participation and empowerment increased from district to national level. Considering the importance of an enabling environment for scaling up, this is not insignificant. Kenya is a country where large handouts and allowances are paid by competing donors. Having champions within the GoK system that can promote ideas and principles is certainly an asset in itself. Without underestimating the difficulties in the current Kenyan culture to a behaviour and attitude change, a renewed attempt needs to be made to convey the message of the core principles of participation and empowerment to those running the CBNP at all levels.

11.1.3 Policy level

Implications for national policy level: The findings from this study have revealed some misconceptions about the character and purpose of participation in the Kenyan policy setting, including the Community Based Nutrition Programme (CBNP) and its base in the Ministry of Culture and Social Services. Such misconceptions point to a gap between what was stated in national policy and strategy papers, including programme documents, and what was practiced in the field. The fact that participation was defined as one concept, but acted out differently by those supposed to operationalise it, has important implications. Recently, participatory discourses have justified the development of social accountability systems related to rights issues. From my own research the community raised issues related to accountability of their own leaders and their own rights, such as right to timely and relevant information. Social accountability offers mechanisms to monitor and protect these rights. The concept of social accountability underlines the right of citizens to expect and ensure that their government and its representatives act in the best interest of their people.

There is a practical reason for promoting participation at policy level and that is to make more effective and efficient use of available (and often limited) resources (Dietvorst, 2001 p.3). Intersectorial collaboration is therefore needed (Al-Mazroa and Al-Shammari, 1991). In line with Dietvorst, I will argue that resources are not so

much of a problem but, rather, that the fragmentation of resources among a great many projects following their own agenda is the problem.

From policy level there needs to be a clearer understanding of the uncertainty, complexity and dynamics of the interaction between the users and providers of health and nutrition programmes, including the systems and context in which health and health care provision takes place. As with most development thinking, participation in health development has moved from needs to rights-based approaches. An emphasis on governance, including decentralisation, inclusion and accountability, has come into focus (Mubyazi and Hutton, 2003). Although widely used by the major international and national donors, a linear approach to development planning is outdated due to its focus on individual institutions to a degree that excludes attention to relationships.

Another factor is that the translation of participatory approaches into policy and practice is not necessarily consistent with the expected and desired change and impact (Cleaver, 2001). For CBNP this will require an understanding of change to include a complex systems perspective and a shift among its professionals and individuals that hold power and control (over resources). Thus, many health development efforts fail to recognise the significance of cultural, economic and political influences – both for the providers and the user – or the potential of well-placed individual agencies and leaders to effect change.

A central insight from complexity analysis is that the interplay between rules and agents leads to emergent outcomes that are not simply predictable from understanding the individual actors alone. In line with Hinton and Groves (2004) I argue that it is important to understand the choices being made by the individual actors at policy level as well as understanding their position and power relations within systems. It is equally important to understand the wider context – the relationships and networks between actors in the systems as a whole – recognising that the system has its own emergent dynamism and internal logic. I will argue that participation, given a conducive environment, is a "window of hope". But this requires the participation of all stakeholders is guaranteed as a right and there is a shift from government-owned to people-owned processes.

Participatory approaches have been criticised for being expensive, slow in action, unable to show impact and only working at micro-level. Although this study was unable to assess the effectiveness of participation there are indications from other CBNP programme data (Makueni pilot) that the cost of intervention is as low as US\$0.6 to US\$9 per person per year (CBNP, 2005) and that similar approaches have had a considerable impact on maternal and child health (Gnanasegaran, 2000 p.8). This shows that cost arguments for excluding participation and 'bottom-up' planning, implementation, monitoring and evaluation could be a myth more than a reality.

To sum up this section table 10.1 shows the factors important for assessing the effectiveness participation as well as suggested interventions procedures. The other factors are social cohesion, the four arenas for participation leading to empowerment (domain, procedures of participation and envelope) resource and the suggested intervention procedures. The horizontal line on the top of the figure shows important factors that should be considered when

Factors -> 2	Availability	Length of
Community assessment/ Intervention showing	Yes	No
Social cohesion	+	-
Congruence building	Short term	Long term
Participatory arenas available	+	-
Capacity building	Short term	Long term
Enabling environment	+	-
Champions and role models	Short term	Long term

Table 11.1: Factors and suggested implementation.

planning a participatory intervention. The left side of the table shows which outcomes to expect when community assessment/intervention is done and the inside of the table show recommended actions.

11.2 The way forward

11.2.1 Action at operational level

The object of participatory approaches is to increase the effectiveness of development programmes. For such processes to succeed, relevant stakeholders in the community – men, women, and children, formal and non-formal leaders – need to participate or take a conscious decision to opt out from the participatory process (take

responsibilities). This is not an easy process and would require skilled and knowledgeable facilitators who are culturally and environmentally sensitive.

The facilitators do not necessarily need to come from the GoK system. Rather, they could be elected from within the local communities and trained to perform their facilitation tasks. Simultaneously, the quality and implementation progress could be monitored at higher levels to ensure that there are accountability measures in place. The fact that people at lower levels did not feel understood or heard in their plea for qualitative value and assessment would be an issue to consider in the future development of indicators. Another important thing to consider is social cohesion and the homogeneity/heterogeneity of the community prior to starting the use of participatory approaches. The findings from this study clearly showed that homogeneity was a precondition for effective participation.

The PANS process could challenge the end-beneficiaries to think critically about their own socio-economic status as a contributing factor to their poor health and powerlessness. The process could also improve their self-efficacy and development, including the development of competencies and leadership skills, which are so badly needed, especially among women. Such leaders would be better prepared to facilitate the process of change. The CBNP and the PANS process could be the "glue holding other bricks" together, but until a more relevant model, including behaviour and attitude change among the power brokers takes place, this is unlikely to happen.

Another opportunity for effective utilisation of the PANS process is data collection and local organisational development around the dispensaries. In the current health system, dispensaries are slowly being handed over to the communities who, through their selected and/or elected committees, are expected to plan, implement and monitor health development in their catchments area, which usually corresponds to a sublocation. The MoH has used participatory methods for data collection and needs assessment, which has been done by the selected and/or elected dispensary committees. This process has been facilitated by the MoH staff. However, I will argue that given the fact that health improvements are so dependent on factors outside the health sector, this facilitation process could be better placed either in the social services sector or with trained and elected community facilitators, who do not

necessarily have a bias towards a model of health that sees health as the absence of diseases only (medical intervention).

11.2.2 Action at strategic level

I have argued that for effective participation to take place and for the local poor people to be accepted as partners in development and have a dialogue with technical staff and politicians, their status in society would have to be changed. Such a change can only follow from a radical change at higher level as proposed by (Laverack, 2004). This must remain the goal, however distant.

After ratifying the Alma Ata declaration in 1978 it is now time that the Kenyan government, the Ministry of Health and the Ministry of Culture and Social Services decide whether they wish effective community participation to occur or not. The government has the ultimate responsibility for health and is accountable to its people in the way resources are spent. It is time that the democratic processes in Kenya, including those in the health sector, are more than "lip service" and that the leaders accept responsibility for their action and behaviour by being genuinely committed to reform, maintaining the quality of the change process and monitoring outcomes and processes.

Last, but not least, the stakeholders should have a right to participate effectively or opt in/out. This will require building the capacity of a critical mass within the GoK systems and structures and have champions that can translate policies into strategies and operations. I would also suggest that for this to happen, an effective intersectorial collaboration between and within sectors is needed at all levels. Currently, the GoK's disbursing mechanisms, structures and thinking do not facilitate this. The intersectorial approach adopted by the CBNP, which starts at the top with social marketing <u>and</u> at the lowest community level with data collection, could be an example to be followed at all levels of the GoK system and also by donor organisations.

For obtaining better health for people, and especially the poor, governments could reduce the non-income disadvantages faced by poor people. They can improve poor people's access to, and knowledge of, health and medical services and improve the

quality of services by making these systems transparent and accountable for the end users. The PANS process can assist in the identification of the poor and the development of exemption criteria for this population group and thereby contribute to inclusion, cohesion, accountability leading to better access to equitable health services (http://www.equinetafrica.org/bibl/docs/DIS1gov.pdf accessed the 5th of May, 2005). But for all this to happen, increased participation of the end users in the dialogue about how this can happen is important. As Macfarlane et al (2000) have argued, intended beneficiaries of health programmes need to be able to negotiate their inclusion in the health system and demand adequate care, not only medical care, but quality health care. The main lessons are that both targeting and tailoring are needed. Targeting refers to eligibility and tailoring refers to accessibility such as strengthening the voice and creating responsive and accountable institutions.

Further action research is needed. The CBNP has a huge amount of data documenting the development and mainstreaming of the PANS process into the social and health sector covering 14 of Kenya's 72 districts. This documentation started in 1994 and is not yet fully analysed, written up and/or published. As the donor, DANIDA, has decided to withdraw its financial and technical support to the programme, claiming it does not fit into the sector wide approaches. Therefore the lessons learned from this genuine attempt to mainstream participation into a government programme urgently need to be documented before it is too late. These lessons could be a starting point and form the baseline for the new health and social sector programme.

11.2.3 Action at policy level

Taking the above recommendations to policy level, the question is not whether participation is necessary for improving health, but how participation can be mainstreamed and assessed for policy makers to understand and justify its importance. It is important to consider 1) how policy-makers can best use research, for evidence based policy planning, 2) how research can best use their findings in order to influence policy, and 3) how to improve the interaction between researchers and policy-makers

(http://www.odi.org.uk/RAPID/Tools/Toolkits/RAPID_Framework.html accessed the 20th of January, 2006). I have suggested that a way forward for participatory

approaches could be to document the health development outcome (evidence) of participatory approaches and thereby give credibility to the innovative methods and tools developed in this thesis. This evidence could be presented to policy-makers with benchmark indicators, linking the health sector reforms with the poverty reduction strategies and service provision. Horizontal linkages and networks with like-minded people and organisations could assist in creating voice, trust and ensure buy-in from policy level. This would then combine top-down with bottom-up planning approaches (Laverack, 2004) and ensure research findings have a place in policy-making. However, there are issues to consider for this to happen, such as the core values of participation, power, equity and human rights and democracy. This will be further addressed below.

I have argued that it is important to distinguish participation as it was originally conceptualised (including its minimum criteria for implementation) from the way it is currently been interpreted and implemented in Kenya in the health sector reform thinking and setting of today. I consider that if the core values of participation can be reinstated and maintained, as is under way through the initiatives of reviving primary health care and developing social accountability, participatory approaches in the health and social sectors have considerable potential for promoting a change. Participation advocates the use of reflective and active learning methods, which are part of the traditional pedagogy in many cultures where current health sector reform processes take place, and – given a culturally sensitive implementation – it has the potential to increase the relevance, speed and acceptability of the change process.

Tackling the issue of better health does not necessarily start with tackling health issues (Navarro, 2000; WB, 2002b). More often than not health improvements start outside the health sector. Enabling those without power and, thus, without the means to influence decision-making to gain skills and knowledge in order to engage in a process of developing the directions of their own lives is important in this process (Rifkin, 2003 p.173). I will put the same importance on informing those in power to accept influence from below. We can call this enabling process a "democratisation of rights process" (in line with the social accountability process) where democratisation is defined as a process where people are able to exercise choices. These choices may be active or passive.

However, the democratisation process does not mean that people are coerced into accepting decisions made by those more powerful or with more resources (Sen, 2001). Now that participation, equity and human rights issues are so high on the policy agenda in health, I would argue that it is time that politicians start to acknowledge that qualitative assessment of what participation represents is important and so is its contribution to monitoring better health (degree of freedom (equity)) in a development change process.

Participation can best improve development effectiveness and efficiency if it enhances and strengthens representative democracy and public administration (both voice and accountability) rather than attempting to transfer financial responsibility without governance power to poor citizens-users. From the interviews it emerged that training activities had not been completed according to plan in Kwale. Yet responsibility for projects' implementation and completion had been transferred to the communities, with mixed results. Strengthening relationships for ensuring accountability is important for effective participation. First of all the relationships between public service institutions and the people they serve, but also equally important is the relationships within the public institutions, defining internal relationships with employees.

Studies of best practices should be promoted and resources allocated. Action research is one way of both documenting what is happening and exploring the factors contributing to or hindering participation and the reform processes. A well designed study to monitor the nutrition and health outcomes and use of participatory and action oriented methods is urgently needed. This has so far been on hold due to the lack of assessment tools. It would be useful to repeat the present study in order to increase transferability and generalisability. The result of these studies could then inform policy makers and form the start of an iterative process and action research of participatory approaches over time.

From this section four questions emerge. These are:

- (1) Can the apparently more holistic approach of the PANS process address issues in the health sector in an effective manner by providing a combination of needs and demands, right from the initiation of the process?
- (2) Can the PANS approach with its emphasis on quality of process and well trained facilitators, be scaled-up to respond to the national needs and demands for health, which are large scale?
- (3) Can effective coverage happen through participatory approaches simultaneously with the top-down approaches try to reach target groups and ensure better health and nutrition?
- (4) Can either of the two approaches, participatory and top-down approaches be effective in the form they are understood, described and implemented today? What lessons can be learned from the use of these approaches, either alone or combined, so as to positively influence major decisions and policy makers nationally and effect positive change?

To sum up, participation at policy level is very complex. Because political systems are systems of meaning and value through which individuals and groups define their identity, policy changes are not technocratic only. They challenge fundamental power relations and therefore policy change must be long-term. Change has to come from inside (behaviour change \rightarrow personal change and sharing \rightarrow institutional change) and from outside (change of tools and methods \rightarrow professional change and access to resources \rightarrow control over resources). This is related to power and power structure. Social transformation is a function of movements from below as well as facilitation from above. It is therefore important to distinguish between technocratic solutions that look good and deeper changes referring to power relations. This will call for no less than a wholesale re-tooling of the public health work-force. The workforce will need to be rebalanced so that the individualistic biomedical and economic view of the world is complemented with a collective, social science focus on community and social structures. The question is who, where and when to take the first step to move from research to policy change.

11.3 Personal reflection

11.3.1 Reflection on the research process: I started my career in health development about 15 years ago thinking that I could "do better" and contribute to "a better world". As part of a bilateral aid organisation I have had the power to do so. I was trapped in the intra-organisational improvements focussing on logical framework outputs, while simultaneously and unknowingly excluding processes. However, it soon became clear that outputs alone would not lead to ownership, sustainability and a real change in the health of the people. Working and living among Kenyans at different levels of the administrative systems for eight years have forced me to reflect and change, and start questioning power and political structures, both among the donors and the Kenyan government system.

The type of changes that have happened so far – intra-organisational changes guided by rules, regulations and procedures – are not sufficient for positive change. I saw and experienced health development change when a profound shift happened in the personal practice of some of the individual powerful players of the systems involved, including myself. Reflectivity, flexibility, understanding, networking, social capital development and learning from successes and failures were all key contributions to unlock the complex world of effective health development.

An interesting finding that emerged was the importance of congruence and homogeneity. This could suggest that local factors in the community, such as social cohesion, inclusion and accountability, may have a protective effect on child nutrition (Havemann and Pridmore, 2005). This make these factors important, especially for child health (Waterston, Alpenstein and Brown, 2003). This PhD research has grown out of my own frustration over the ineffectiveness and inefficiency of development aid in the health sector. As I moved from the role of an arrogant western development thinker and professional health development implementer to a researcher, I wanted to document an experience that fundamentally has changed my life and understanding of the world of health development.

Groves and Hinton (2004 p.15) contend that individuals only change if they believe that it is in their best interest and consider the idea to be important. Furthermore,

organisations have an important role to play in providing incentives for such a change. My PhD journey started with my enthusiasm for documenting a best practice experience that was not, at the time, part of the mainstream donor thinking and agenda and my frustration over a lack of donor interest and funding to sufficiently document such an experience from a professional stance. My PhD journey ends with my role changed from a normal professional into a researcher and simultaneously not forgetting my own role as a woman, a wife, a mother, a daughter and as a world citizen.

I still believe that the key to unlock such complex health development systems needs to be individuals who are ready and have the courage to question themselves and the political systems in which they are part, despite loyalty to these systems being their own security. I argue that practitioners currently underestimate their potential to act as catalysts for change and that they have the responsibility to develop such a potential. Individuals can change the functioning of a system by working at the local level to direct the flow of the wider system. Small and well-placed shifts can eventually lead to a radical restructuring of the system as a whole.

11.3.2 Methodological reflection: The purpose of this section is to reflect on the research methods, extract implications and suggest future improvements. Data to address the research questions were collected through a structured questionnaire, anthropometric assessment of children below five years of age and body mass assessment of adults in the intervention and non-intervention sublocations. The sampling frame was households with children under five years of age, the sample size was calculated and a random proportional sample of these households in the intervention and non-intervention area was chosen. A mixed method approach was used. These were: survey methods, key informant interviews and focus and group discussions. Of specific interest were the development, testing and application of visualisation techniques for assessing participation and empowerment, and then combining these methods during the analysis of data.

During the whole process of data collection efforts were made to ensure the quality, transferability and reliability of methods and data. Furthermore, ethical issues relevant to the study were taken into account. I have also stressed the importance of the entry

and exit skills of the researcher and the selection of the research team, both the assistants and the village research coordinators. A major facilitating factor ensuring the success of this fieldwork has been my own knowledge of the Kenyan administrative system, the community dynamics and structures, including power structures, and the Kiswahili language. This prior knowledge of the field resulted in the selection of an equal balance of external and internal, male and female research team members and this combination proved very successful in prevention conflicts, saving time and funds and making the whole exercise more effective and efficient.

The selection of sublocations, the sampling and the sampling frame and the unit of analysis proved to be complicated, a discovery made far into the research process. The selection of the non-intervention areas was based on a review of secondary data and discussions with key programme officers and community members prior to data collection. However, an administrative division of sublocations was done by the Kenyan Government during the time of the field study resulting in lack of comparability between geographical areas. Furthermore, the non-intervention area proved during the research process to be significantly different from the intervention area. The correct measure would have been to stop the study and find another comparable sublocation. However, time and resources did not allow for this to happen. The analysis of the statistical data using the SPSS programme, with the changing unit of analysis from household to person depending on the variables examined, consumed considerable time and resources. These statistical programmes (SPSS and EPI-INFO) proved eventually to be unsuitable for such analysis.

New tools for assessing participation and empowerment were developed and tested and were a success. Although Rifkin *et al.* (1988) contend that it is difficult to convert a focus on the poor into an indicator, I will argue that by letting the community divide themselves into social strata and then assessing the effectiveness of any development intervention, such difficulties can be overcome and show patterns of how these strata (and possibly gender issues) develop and change over time. These new tools combine qualitative processes with quantitative methods, resulting in several strengths. Firstly, used with care and skill, they will focus on who, how, what, when and where people participate. Secondly, they seek to follow the dynamics of change in a programme, including its people, and they track these changes in a systematic way. Thirdly,

changes over time can be followed and measured. Lastly, depth rather than scope can be explored and explained. Moreover, the tools helped the different stakeholders to gain clarity and awareness of the nature and obstacles to community participation in health development and, as described by Kok (1992) consonance³⁹ emerged through common experiences doing the assessment.

There were limitations and weaknesses of these tools. One was the application of the ranking scale and understanding and accepting the factors that were to be ranked. The fact that some of the research team members, including myself, used to be programme staff could be seen as both an advantage and a disadvantage. However, in line with my own experience, promoters of Participatory Action Research and Early Childhood Development effectiveness initiatives argue that insiders themselves must be actors and not merely acted upon (De Koning and Martin, 1996; Mwaura, 2001).

Overall, the mixed methods approach proved very useful and applicable for answering the four research questions, and the new tools developed for assessing participation and empowerment are now ready to be further tested in an international environment.

11.4 Dissemination of research findings

The study findings have been presented through workshops to the GoK Ministry of Education, Technical Training and Applied Technology, where the research clearance for this study was obtained, the Ministry of Health, and to the staff at all levels in the Ministry of Culture and Social Services. Some of the findings have also been presented in the recent follow up conference of the Word Summit for Social Development in Arusha, Tanzania called, "New frontiers for Social Policy Development in Globalized Word" a (http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOP MENT/0,,contentMDK:20736421~pagePK:210058~piPK:210062~theSitePK:244363 ,00.html). A copy of this thesis will also be forwarded to the district information centre and Kwale Stakeholder Forum for Health, as they have shown interest in the wider dissemination of the findings in and outside Kwale district. Lastly, a copy of the

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³⁹ Consonance is defined as the degree of fit between the programme and its objectives.

study findings will be given to interested donors in Kenya, such as DANIDA, DFID, WB, WHO and UNICEF.

It is expected that the findings from this study will be rewritten as a monograph entitled "The role of participation in the health sector, its assessment and effectiveness". This monograph will be easy to read and capture the interest of academics, students, practitioners, policy makers and other people with an interest in participatory approaches in the health development outside the academic world.

11.5 Summary and conclusion

This concluding chapter has reviewed the main findings from the research presented in this thesis and drawn out wider conclusions and implications of the findings. Recommendations have been made for future action and research.

The significance of this thesis lies in its contribution to the literature at a time when major reforms are happening in the health sectors and innovative approaches are being sought for redefining participation, empowerment and their assessment as part of the major readjustment of the 1978 primary health care approach. There is a window of opportunity and hope for effective participation to find its place in linking of the policy, strategy and operational processes, which are concomitantly being implemented.

This thesis has argued for the current debate of using and including participatory approaches to be expanded and for action research to continue to reduce the gap between the theory and the practice of participation. It has provided evidence from Kenya to support the argument that participation is needed for an effective health development outcome and that appropriate tools and methods for assessing both process (participation and empowerment) and outcomes are needed. However, one size does not fit all, and as the findings of this thesis indicate, there is need for considering 1) social cohesion and the homogeneity of the community we are working in, 2) the arenas (preconditions) for participation and 3) the enabling environment and last but not least 4) the capacity of the government systems, including the service

providers, to respond. This can and will only happen if there is full commitment at all levels to the change process.

"The effectiveness of participation is not so much in the WHAT but in the HOW"

We could if we would, but would we if we could?

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APPENDICES

APPENDIX 1: CONSENT FORM (ENGLISH)

CONSENT FORM

Introduction to the interview and the respondents consent.
How are you? My name is and I assist Dr. Havemann in her PhD research. This research aims at assessing the effectiveness of community participation called the PANS process in improving the health and nutrition status of children under 5 years of age. The research takes place in Mazumalume and Simkumbe sub location and was introduced to you at a village meeting on the Furthermore the research is cleared by the Ministry of Education and the District Commissioner and his staff here in Kwale. We also collaborate with the Ministry of Health and Social Services and the outcome of this research will be used for improving the health planning by all stakeholder.
We will ask you some questions about you and your family's health and these may take about 30 minutes. Thereafter we will measure the weight and height of all adults and all children under 5 years of age. The information you are going to give will be very important to us and will be treated with confidentiality.
Your participation to this interview is voluntary and you can respond to all or some of the questions or not answer at all. Since your opinion is very important for the outcome of this research, we hope that you will participate.
Before we start, do you have any questions you would like to ask?

APPENDIX 2: CONSENT FORM (KISWAHILI)

UTAFITI WA Phd, KWALE				
Hamjambo? Jina langu naitwa na ninamsaidia Dr. Kirsten Havemann kwa utafiti wa Phd yake hapa Kwale. Lengo la utafiti huu ni kuangalia ni kiwango gani wanakijiji walihusishwa kwenye utaratibu wa PANS kuimarisha Afya na hali ya lishe bora kwa watoto chini ya miaka tano. Utafiti ulifanywa katika kijiji cha Mazmalume na Simkumbe. Pia wanakijiji walifahamishwa kwenye mikutano tarehe Ikizidi Utafiti huu ulipitishwa na Wizara ya Elimu, na ofisi ya District Commissioner hapa Kwale. Pia tulishirikiana na wizara ya afya, huduma za jamii na matokeo ya utafiti huu yatatumika kuimarisha mipangilio ya afya kwa washirka dawa wote.				
Nitakuuliza maswali tofauti kuhusu afya yako na jamii yako, naitachukua kama nusu saa. Kisha tutachukua uzito na urefu wa watuwazima na watoto wote chini ya miaka tano. Majibu utakayo tupa ni muhimu kwetu na tutayahifadhi kisiri.				
Kujihusisha kwako wewe kwenye kutakiminiwa ni kwakujitolea na unaweza kujibu maswali yote au baadhi ama usijibu kabisa. Kwa vile mawazo ni muhimu kwa matokeo ya utafiti huu, tunatumaini utahusika.				
Kabla hatujaanza, je unaswali lolote unataka kuuliza?				



Ladder of Citizen Participation (origin: Arnstein, 1969: 70)

Ladder of children's participation (Source: Hart, 1997: 41)

A number of useful typologies have been developed to help us recognise the way in which participation is a process rather than a product. An early example was presented by Sherry Arnstein (1969) (see Figure 1). At the time of publication the ladder of participation was considered to be deliberately provocative typology of citizen involvement. It has, however, since been taken up and adapted widely by other (Hubley, 1993). More recently the dialogue has moved into frameworks of empowerment (Hart 1992; Cornwall, 1996). Hart's ladder of children's participation has proved a valuable tool for project evaluation (see Figure 2). As Hart (1997:41) explains:

"whilst the upper levels of the ladder express increasing degrees of initiation by children, they are not meant to imply that a child should always be attempting to operate at the highest level of their competence. The figure is rather meant for adult facilitators to establish the condition that enable groups of children to work at whatever levels on different projects or different phases of the same project. Also, some children may not be initiators but are excellent collaborators. The important principle is to avoid working at the three lowest levels, the rungs of non-participation".

APPENDIX 4: FRAMEWORKS FOR ASSESSING PARTICIPATION:

Howes (1993) and Rebiens frameworks for assessing participation are shown below.

Howes framework: For each of the two developed indicators, called *value* and *confidence*, there was a scoring table. For value the scoring ranged between 1-7 and for "confidence" the scoring ranged between 1-5. A project was considered more participatory when the score was high.



Table A1: Howes framework for assessing participation.

Rebien's framework: Rebien further developed Howes framework and looked at the relationship between the phases in a development process (shown on the left hand side of the table below) and the stakeholders involved in the respective phases (shown at the top of the table). This matrix was used together with what Rebien called the three dimensions of participation which were:

- 1) how much participation was either a means or an end in itself;
- 2) Stakeholders involvement in the different phases of the development process or project cycle. They should participate in at least three phases;
- 3) Stakeholder dimension. At least representative of the beneficiaries, intervention field staff, intervention management, and the donor should be included in order for the project to be called participatory.

The three criteria and the matrix was used by Rebien to assess participation in the four case studies he analysed for his PhD thesis (Rebien 1996)



Table A2: Rebiens framework for assessing participation.

APPENDIX 5: HEALTH AND DEMOGRAPHIC SURVEY DATA FROM KENYA AND KWALE DISTRICT



http://www.cia.gov/cia/publications/factbook/geos/ke.htlm
 Baseline Survey from CBNP Mwandime, R. K. N. (1995). Community Based Nutrition Rehabilitation. A Baseline Report for the Kilifi and Kwale FLTCs. Nairobi, Community Based Nutrition Programme. MCSS/DANIDA.

³ The nutritional figures from Kwale is from the 1999 National Micronutritional Survey Report Mwaniki, D. L., A. M. Omwega, et al. (1999). Anaemia and Status of Iron, Vitamin and Zinc in Kenya. Nairobi, Kenya Medical Research Institute.

⁴ This figure excludes North Eastern Province, Samburu, Turkana in Rift Valley Province and Isiolo, Moyale and Marsabit in Eastern Province.

⁵ WB, WHO, UNICEF

⁶ Population Reference Bureau, 1997, Analysis of Baseline Documents Report, Table 18. Kenya Family Health Programme.

MoH/AMREF (1998). Health Sector Status Analysis. Nairobi, MoH AMREF.



Table A 3: Demographic and socio-economic data from Kwale and Kenya.

 ⁸ GoK(c) (2002). National Development Plan, 2002-2008. Nairobi, GoK.
 ⁹ GER=General Enrolment Rate, NER= Net Enrolment rate NGO-CRC, C. (2001). Supplementary report to Kenya's First Country report on Implementation of the UN Convention of the Rights of the Child. Nairobi, The Kenya NGO CRC Coalition: 5.

APPENDIX 6: TOP TEN DISEASES FOR KWALE DISTRICT COMPARED TO COAST PROVINCE AND KENYA



Table A 4: Top ten diseases of Kwale district, Coast province and Kenya.

GoK/MoH Annual report for Kwale District, 2002 data
 GoK/MoH. Annual report Coast Province, 2003 data
 GoK/AMREF (1998) Health Sector Status Analysis presenting data from 1996

APPENDIX 7: ACTIVITY PLAN FOR THE PILOT STUDY

Month	Week		Activity
May, 2001	1	a)	Presentation of research proposal to Commissioner for
_			Social Services and her staff as well as donor staff
		b)	Introduction to the Aga Khan Health Services (Kwale
			Health Strengthening Support Project), Dr. Salim
			Sohani and Ms. Eunice, Mombasa
		c)	Introduction to Mwangane Village and Kifunduni
			Dispensary
	2	a)	Field work preparation
		b)	Introduction to Mwanagne Primary School and Village
			Development Committee
			Report writing
	3		Contacting Commissioner for Social Services
		b)	Meeting with Central Bureau of Statistics for secondary
			data
		c)	Planning for the following week
	4	a)	Meeting with Community representatives from
			Mwangane village
		b)	Visit to Kwale to prepare for introduction to District
	:		Commissioner
		c)	Introduction to District Social Development Officer,
			Medical Officer of Health and District Commissioner
			from Kwale
		d)	Participation in Kwale stakeholder forum meeting
	i	e)	Presentation of research proposal to Provincial Medical
			Officer from Coast Province, donor representative, Aga
			Khan staff and selected members from the Dep. of
			Social Services
		f)	Drawing the village map with selected villagers from
	:		Mwangane
		g)	Finalising the Mwangane map and semi-structured
			interviews
			Village walk in Mwangane village
			Planning for the following week
June, 2001	1		Documentation of the previous week
		I	Finalising the village walk
		(c)	Visit to sub-chief and chief of Mwatate sub-location and
			Location
		(d)	Visit to Samburu division to prepare for introduction to
			District Officer of Samburu
		۱	Documentation and preparation for PLA training
		1)	PLA training (12 people from Mwangane village and
			one person from Aga Khan)
			Planning for the following week
	2	1	Introduction to District Officer in Samburu Division
		(b)	Introduction to Kwale Rural Support Programme and
			Institute of Cultural Affairs in Mariakani

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stics and
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nd
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Table A5: Activity plan for the pilot study.

¹³ SWOT: Strength, Weaknesses, Opportunities and Threat

APPENDIX 8: TIME TABLE AND TRAINING FOR FIELD STAFF, PILOT PHASE

TIMETABLE: Participatory Learning and Action (PLA) Training Session heal at the Aga Khan premises on the 11th of June, 2001.

TIME

ACTIVITY

8.00am – 9.00am Arrival of the participants

9.00am – 10.45am Session I

10.45am - 11.00am Tea - Break

11.ooam – 1.00pm Session II

1.00 pm - 2.00 pm Lunch Break

2.00pm - 3.30pm Session III

3.30pm -3.45pm Tea - Break

3.45 pm - 4.30 pm Session IV

4.30pm – 5.00pm Preparation of future

activities

Training

Introduction to the training:

The PLA training began at 9.00am with introductions from the participants. The facilitator together with the 12 participants developed with ground rules, which were:

- Involvement
- Time management
- Respect for others
- Discipline

The facilitator then gave a brief overview of the concept 'development' and how it has evolved over time. PRA (or PLA) was developed in 1988/89 in Kenya. It is a way of collecting data and it uses methods of sociology and anthropology. It was decided to use PRA and PLA interchangeably during the workshop.

When using the PLA approach, it is important to:

- Listen carefully, that includes watching the body language
- Encourage people to share ideas
- Ask questions (to others and to yourself)
- Respect people
- Note what is going on between the community

PLA principles and practice

1.	Local perceptionsLocal criteriaLocal views determine plans	2. ReflectivePRA as a processFeedback vital	 3. Respectful and enabling Respecting local wisdom Developing, analysing and planning 	 4. Learning approach • Learn as you go • Triangulation
5.	Interactive Between disciplines	 6. Flexibility and innovative Responsive Adaptive 	 7. Offsetting biases Learning from children, women, poor rather than village leaders or big men 	

The Research Process

The research process entails logical sequence of the following:

- Define objectives
- Workshop
- Checklist
- Fieldwork
- Analysis, further checklist
- Fieldwork
- Opportunities and constraint analysis
- Feasible opportunities
- Assess, assign, anticipate
- ACTION further research, more

PLA tools

The PLA tools that were to be used to obtain the information needed were divided into five clusters;

❖ SPACE	TIME	LINKAGES
 Mapping 	1. Timeline	 Venn/chapati diagram
2. Transect	2. Trendline	2. Flow diagram
3. Seasonal calendar		3. Causal diagram
RANKING AND	❖ GENDER	
SCORING		

Applying the tools

It was decided to expose the participants to a number of different tools and they were given the option to choose which tool they would practice during a workshop. This exercise was done as a role-play using the information from their own community. They did a gender analysis, seasonal calendar and time line. These are shown below.

TIMELINE FOR MWANGANI VILLAGE, MWATATE SUB-LOCATION

Year	Event
1918	First world war
1924	President Moi was born
1928	President Moi's father died
1940	Ngano famine
1963	Kenya got independence
1963	Kenya was declared a republic
1974	Yellow flour famine
1978	President Kenyatta died
1982	Government overturning
1982	Earthquake
1982	AIDS announced
1984	8.4.4 Education system introduced, Mtongwe
1997	ferry sunk
1997	Kaya bombo civil war
1998	El nino rains
1998	Bombolulu girls secondary is burnt
1999	Nairobi bomb blast
2001	Mwatate chosen as a sub-location
	Two buses fell into Sabaki river

GENDER ANALYSIS FOR MWANGANI VILLAGE (ACTIVITY PROFILE)

Address of the Wilderson	0 - 1 years		19-50 years		50-7. Year	
ACTIVITIES	F	M	F	M	F	M
1. Initiation		$ \downarrow$ $$		1		- \
2. Farming			V	V		
3. Fetching water	1		√		√	
4. Fetching firewood	√		√		V	
5. Grinding maize	V		√			
6. Rearing children	√		1			
7. Cooking	√		√			
8. Herding cattle		1		1		
9. Guiding and counselling				1	V	_ √
10. Small business						
11. Financial controller				√		
12. Laundry	V	√	$\sqrt{}$			
13. Law and order				√		√
14. Inheritance		√		√		
15. Buy food			√			
16. Education		√ √				
17. Discipline			√ √		V	V
18. Head of family				√		V
TOTAL	6	6	11	10	4	7

SEASONAL CALENDAR FOR MWANGANI VILLAGE

Andrew Street	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Mal- nutrition	•••••	•••	•••••	••••	••	••••	•••••	•••••	•••	•••••	•••••	••••
nutrition			•			••••	••			••		
Other	••••	•••••	•••••	••••	•••	••••	•••••	•••••	••••	•••••	•••	••
Diseases			••				••		••			
Farming	••••	•••	••••	•••	••••	••••	••••	•••••	••••	••••	••••	•••••
Practices			•			••	••		•			
Rainfall	••••	•••••	••••	••••	•••••	••••	•••••	••••	•••	••	•••	•••••
					•••	•••	•					
Cash	•••••	•••••	••••	••••	••	•••	•••••	••••	•••	•••••	••••	•••••
Availab.		•									••	
Activities	•••••	•••••	•••••	•••••	•••••	••••	•••	••••	••••	•••••	••	•••••
			••	•					••			
Income	••••	••••	••••	•••••	••••	•••	••••	•••••	••••	•••	••	•••••
Gen. Act.				•••••				••				••
				••								

 $[\]bullet$ = one stone

Conclusion: The participants felt reasonable confident by the end of the training session and it was decided to practice the tools and skills further in the field.

APPENDIX 9: RESOURCE MAP OF MWANGANE VILLAGE, MWATATE SUBLOCATION (PILOT AREA)



Figure A4: Resource map of Mwangane village, Mwatate sublocation, Kwale.



Figure A5: Detailed map of Mazumalume sublocation, Kwale district.

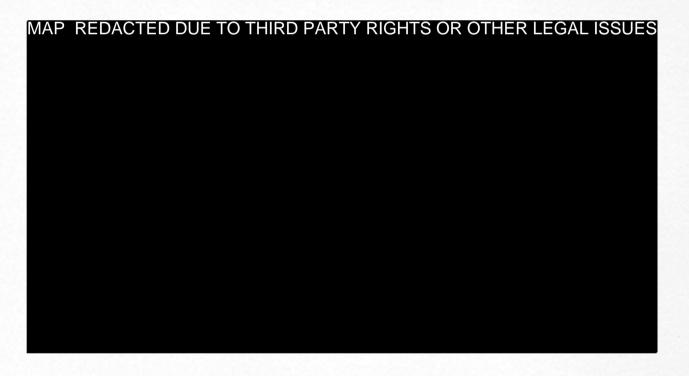


Figure A6: Detailed map of Simkume sublocation, Kwale district.

APPENDIX 11: MAP OF TINGETI VILLAGE, MAZUMALUME SUBLOCATION (INTERVENTION SUBLOCATION) DRAWN BY THE COMMUNITY



Figure A 7: Detailed map of Tingeti Village, Mazumalume sublocation, Kwale district.

APPENDIX 12: STRUCTURED QUESTIONAIRE (ENGLISH) Serial No. _____

KWALE PHD RESEARCH QUESTIONAIRE (Mazumalume¹⁴)

Introduction: Please introduce yourself and state the purpose of this sturdy and interview (to assess the level of participation and its effect on the nutritional status of children under 5 years of age) Ensure the respondents confidentiality. The overall finding will be disseminated in a Baraza once the study is finalized.

1. Date of interview			2. Code of inte	erviewer
	1= Bahati			
	2= Mwanal	ima		
	3= Fatuma			
	4= Chengo)		
3. Sub location 1=Mazuma 2=Simkuml	lume		4. Household	No. (if any)
Household Characteri	stics:			
5.0 Name of head of H	H			
5.1. Tribe of head of HI 1. Digo 2. Duruma 3. Giriama 4. Kamba 5. Others (spe				
5.2 Sex of head of HH: 1. Male 2. Female				
5.3. Age of head of HH				
5.4. Marital status of he 1. Single 2. Married mo 3. Married pol	nogamous	4. Separated5. Divorced6. Widowed		
5.5 If married and male	, age of the spou	se at the time of n	narriage? 1 st spouse 2 nd spouse 3 rd spouse 4 th spouse 5 th spouse 6 th spouse	

¹⁴ The questionaire for Simkumbe Sublocation was the same, a part from questions 34-36 (about CBNP and PANS). These quations were repleated with 2 similar questions referring to any health development process in the area.

6. List members of the HH: (Resident members eating from the household in the last one month)

No.	Sex 1.Male 2.Female	Present during the Interview 1. Yes 2. No	Age (years)	Education	Occupation	Head of HH or relation to head HH. List Head of HH first
1						Head of HH
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

Education

Occupation/Regular activities (there can more than one code)

0=Never attended school 1=Attending Preschool (Nursery) 2=Attending Primary School

3=Completed STD 1-4 Primary school

4=Completed Std. 5 - 8 5=Attending Secondary School 6=Completed Secondary School 7=Post Secondary Education

8=Drop outs (any drop outs either primary or secondary school)

9=Madarasa (Muslim Schools)

10=others (specify)

0=child going to a primary school 1= Has never been employed

2=Housewife

3=Farming (If a woman does both

Code 2 & 3)

4=Salaried employment 5=Artisan/self employed

6=Student (above primary school)

7=Others (specify)

Religion					
7. Which religious community do you belong to: 1=Catholic 2=Muslim 3=Traditional belief 5=Others (specify) 6=None					
Water and	d Sanitation				
1= 2 = 3= 4= 5= 6=	s your major source of drinking water =Piped water =Well =Dam =Spring (P=protected, U=unproted =River =Borehole =Others (specify)				
1=	water source permanent or seaso =Permanent =Seasonal	nal?			
1= 2= 3= 4= 5= 6=	water source is seasonal, what altewell =Dam =Spring (P=protected, U=unprotected) =River =Borehole =Others (Specify) collects water in this HH every day	oted	use?		
2=	=Man =Woman =Child				
12. How lo	ong does it take to fetch water?	During the dry season During the wet season	Min Min		
Sanitatio	n				
13. Is ther 1. 2.		bserve and record)			
14. If yes: 1. 2. 3. 4. 5.	Ventilated improved pit latrine Shelter Flush toilets				

15. Is the to	oilet being us 1=Yes 2=No	sed (ask, observe and record	1 if possible)?	
Poverty Fa	ctors (in ac	ddition to the above)		
1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	Paraffin sto Sewing ma Radio TV set Wheel barr Bicycle Motorbike Personal v Tractor Farm equip	achine row ehicle pment a=cattle, b=goat, c=chicken,	d=donkey)	
17. Do you	1=Own 2=Rente	r have you rented some? ed s (specify)		
18. If the ar	nswer to No	. 17 is 1 or 2, how much land	I is it?	Acres
19.	a)	How does the roof of the h 1. Thatched roof (straw) 2. Iron sheet roof	(a=maintained	e and record) l, b=un maintained) l, b=un maintained)
	b)	How do the walls of the ho 1. Mud wall 2. Bricks/cement	(a=Maintained	and record) , b=un maintained) , b=un maintained)
20. List you 1. 2. 3. 4. 5. 6. 7.	Employme Casual wo Business (Trading (b Farming (s Farming (s	permanent) buying and selling) sell of cash crop) sell of staple food) riends and relatives	oriority?	
21. Are the	ere any orph	nans (biological) in your HH?	' (Below 16 years with	n one or no parent
1. 2.	Yes No			

22. If yes, how many?							
Health							
23. Has a	ny member of 1=Yes 2=No	your house	shold been unwell in the	e last 7 days?			
24. If yes	which illness	(fill in the ta	ble below)?				
No.	Sex 1. Male 2.Female	Age in years	Iliness	Primary source	ce of treatment		
Code for 1=Arthritis 2=Malaria 3=Abdom 4=Intestin 5=URTI (I 6=Diarrho 7=Cough 8= TB (Co 9=Skin dia 10=Malnu 11=Other 25. How I	atment nt reatment (herbs) faith healer tion (bought drugs) Health Worker facility Min						
	4=Comm	ional health nunity health s (specify)	n post manned with a C	CHW			
27. Does	27. Does any other member in the HH make use of it? 1=Yes 2=No						
28. If no, why not? 1=Very far 2=Too expensive 3=Don't believe in it (e.g. Modern treatment) 4=Not functioning 5=Drugs not available 6=personnel absent (most of the time or always) 7=Poor motivation and attitude of health staff) 8=Others (specify)							

29. If you d	on't attend the h	nealth facility, where do you	go when any member of the HH is
uriweii:	1=Traditiona 2=Communi 3=Self Medi 4=Others (s	ity Health worker cation	
30. Has yo	ur HH been visit	ed by any health officer (MC	OH staff) during the last 3 months?
	1=Yes 2=No		
			activities during the last 3 month (such on, HIV/AIDS campaign, Nutrition and
outors,	1=Yes 2=No 3=Do not kr	now	
32. Have y	ou heard about 1=Yes 2=No	HIV/AIDS?	
. 33. Has an	y of your HH me	embers been offered an opp	portunity for HIV test?
	1=Yes 2=No 3=Do not kr	ow	
Communit	y Based Nutrit	ion Programme (CBNP)	
34. Have y	ou heard about 1=Yes 2=No	FLTC/CBNC?	
35. If yes, h	nave you been i 1=Yes 2=No	nvolved in their community I	based activities?
36. If yes, o	1=Baseline 2=Social ma 3=Village wa 4=Communi 5=Communi plan)	arketing alk ity data gathering (mapping, ity Action Plan (analysis of t	transect walk, seasonal calendar etc) he problems, prioritisation & action TC, PET, water improvement, others)
		g and Evaluation	ro, r E1, water improvement, others)
37. Take th	e following mea	surements of the man:	
a)	WEIGHT:	(to the nearest 0.1kg)	first reading:Kg
			second readingKg
b)	HEIGHT	(to the nearest 0.5cm)	first reading:cm
			Second readingcm

	ollowing measu en exclusion):	urements of the woman <i>(reme</i>	ember to ask if they are	
a)	WEIGHT:	(to the nearest 0.1kg)	first reading:	_Kg
			second reading	Kg
b)	HEIGHT	(to the nearest 0.5cm)	first reading:	_cm
			Second reading	cm
	lowing measure en exclusion):	ements of the (1 st Wife) Woma	an (remember to ask if the j	y are
a)	WEIGHT:	(to the nearest 0.1kg)	first reading:	_Kg
			second reading	Kg
b)	HEIGHT	(to the nearest 0.5cm)	first reading:	_cm
			Second reading	cm
	llowing measur en exclusion):	rements of the (2nd Wife) (ren	member to ask if they are	
a)	WEIGHT:	(to the nearest 0.1kg)	first reading:	_Kg
			second reading	Kg
b)	HEIGHT	(to the nearest 0.5cm)	first reading:	_cm
			Second reading	cm
	ollowing measu en exclusion):	rements of the (3 rd Wife) <i>(ren</i>	nember to ask if they are	
a)	WEIGHT:	(to the nearest 0.1kg)	first reading:	_Kg
			second reading	Kg
b)	HEIGHT	(to the nearest 0.5cm)	first reading:	_cm
	ollowing measu en exclusion):	rements of the (4 th Wife) <i>(ren</i>	Second reading nember to ask if they are	cm
a)	WEIGHT:	(to the nearest 0.1kg)	first reading:second reading	_Kg _Kg
b)	HEIGHT	(to the nearest 0.5cm)	first reading: Second reading	_cm cm

	llowing measur en exclusion):	rements of the (5 th Wife) <i>(rem</i>	ember to ask if they are
a)	WEIGHT:	(to the nearest 0.1kg)	first reading: Kg second reading Kg
b)	HEIGHT	(to the nearest 0.5cm)	first reading:cm Second readingcm
	ollowing measu en exclusion):	rements of the (6 th Wife) <i>(ren</i>	nember to ask if they are
a)	WEIGHT:	(to the nearest 0.1kg)	first reading:Kg second readingKg
b)	HEIGHT	(to the nearest 0.5cm)	first reading:cm Second readingcm
39. Take the f	ollowing meası	ure of all children <i>under</i> 5 yea	ars of age <i>(60 months):</i>
<u>1. child:</u>			
a)	Age:		Month/Years
b)	WEIGHT:	(to the nearest 0.1kg)	first reading: Kg second reading Kg
c)	HEIGHT/LEN	GTH (to the nearest 0.5cm)	First reading:cm Second reading:cm
2. child:			
a)	Age:		Month/Years
b)	WEIGHT:	(to the nearest 0.1kg)	first reading:Kg
			second readingKg
c)	HEIGHT/LEN	GTH (to the nearest 0.5cm)	First reading:cm
3.child:			Second reading:cm
a)	Age:		Month/Years
b)	WEIGHT:	(to the nearest 0.1kg)	first reading: Kg second reading Kg
c)	HEIGHT/LEN	GTH (to the nearest 0.5cm) F	First reading:cm Second reading:cm

4.child:				
a)	Age:			_Month/Years
b)	WEIGHT:	(to the nearest 0.1kg)	first reading: second reading_	
c)	HEIGHT/LEN	GTH (to the nearest 0.5cm)		cm
5.child:			Second reading:_	cm
a)	Age:			_Month/Years
b)	WEIGHT:	(to the nearest 0.1kg)	first reading: second reading_	
c)	HEIGHT/LEN	GTH (to the nearest 0.5cm)	First reading: Second reading:_	
6.child:				
a)	Age:			_Month/Years
b)	WEIGHT:	(to the nearest 0.1kg)	first reading: second reading_	Kg Kg
c)	HEIGHT/LEN	GTH (to the nearest 0.5cm)	First reading: Second reading:	cm

IF YES IN QUESTION 33 DO THE FOLLOWING SCORING:\

40. Ask the present HH members the following 4 questions and ask them to give a score – out of a total of 10 stones for each step

Pre-cursor	1.Methods	2.Attitude/Behaviour	3. Sharing	4. Access to	Total
which need to	To what	To what extend did	To what extend	resources	Score
be in place for	extend did	the attitude/	was	resources	
effective	the methods	behaviour of the	information	To what	
participation	used in each	facilitators increase	shared to all	extend did	
	of the 7 steps	your participation in		access to	ŀ
Scoring out of	increase	each of the 7 steps	stakeholders in	resources	
10 stones for	participation	· ·	each of the 7	increase for	
	in health	}	steps	effective	
•	Dev.			participation	
				in each of	
				the 7 steps	
Step 1			*		
Baseline					
Survey	10	:			40
Step 2					•••
Social					
Marketing					
(Presentation				1	
of data to all]]
stakeholders at	Ì				
all levels)	10				40
	10				40
Step 3					
Village walk					
(facilitator and					
beneficiaries)					4.0
	10	_			40
Step 4					
Community					
data gathering					
(mapping,					
seasonal					
calendar,					
transect walk	10				
etc.)					40
Step 5					
Problem					
analysis and	į.				
prioritisation	10				
Step 6				1	
Implementation					
(Such as CTC,				1	
PET, health					
education etc.)	10				
		_			40
Step 7					
Monitoring and					
evaluation	10				
	ı				40
1					
Overall score					
Overall score	70	70			

IF YES IN QUESTION 33 DO THE FOLLOWING SCORING:
41. Ask the present HH members the following 4 questions and let them give a score – out of a total of 10 stones - for each step.

Pre-cursor	1.Personal	2.Institutional	3. Professional	4. Control	Total
which need to	Change	Change	change	over	Score
be in place for effective Action	How much	How much	How much has	resources	
Competence	has each	has each	each step		
- Impotoriou	step	step	contributed to	How much	
Scoring out of	contributed to	contributed	professional	has each step	
10 stones for	personal	to	change?	contributed	'
each step	change?	institutional		to full	
		change?		control	
				over	
				resources?	
Step 1					
Baseline					
Survey	10				40
Step 2					
Social Marketing					
(Presentation					
of data to all					
stakeholders at					
all levels)	10				40
Step 3					
Village walk (facilitator and					
beneficiaries)					
beneficianes)	10				40
Step 4					
Community					
data gathering					
(Mapping,					
seasonal calendar,					
transect walk	10				40
etc.)	- -				'-
Step 5					
Problem					
analysis and prioritisation	10				40
Step 6	10				+0
Implementation					
(Such as CTC,					
PET, health					
education etc.)	10]	40
Step 7	10				40
Monitoring and					
evaluation					
	10				40
Overall score					
Overall score		70	70	70	
	70		, ,		280

APPENDIX 13: STRUCTURED QUESITONAIRE (KI-SWAHILI)

MASWALI YA UCHUNGUZI WA PHD KWALE (MAZMALUME SUBLOCATION)

Utangulizi: Tafadhali jitambulishe na ueleze lengo la utafiti (kutathimini kiwango cha kujishuhulisha na matokeo yake kwa hali ya afya ya watoto chini ya miaka mitano) Ifadhi habari zinazi kusanywa. Matokeo ya utafiti huu utaelezwa baraza baada ya matokeo kumalizika.

1. Tarehe ya kutahiniwa		2. Namba ya mtahini	:		
			1=Bahati		
			2= Mwanalima		
			3=Fatuma		
			4=Chengo		
			4=Offerigo		
3. Mtaa:	Mazumalume = Simkumbe =	-			
4. Nambari ya	nyumba				
Tabia za weny	∕e nyumba:				
5.0 Jina la mta	wala wa nyumb	a:			
5.1 Kabila ya n	ntawala wa nyur	nba:			
	2 3 4	= Digo ! = Duruma ! = Giriama ! = Kamba i = Zinginezo	o (taja)		
5.2 Mkubwa ni	:				
	1=Mume 2=Mke				
5.3 Miaka ya n	ntawala wa nyur	mba:		miaka	
5.4 Hali ya uny	/umba:			_	
1=Maisha 2=Bibi mn 3=Bibi we	noja				4=Walitengana 5= Waliachana 6= Alifiliwa
Wa kwanza Wa pili Wa tatu Wa inne Wa tano		wa, (a) um	ri wa mke wakati wa kı	uolewa	
2. Kati ya	ya miaka 18 a miaka 18 – 25 a miaka 26 - 40			i ya mia ka 60 n	ka 41 - 60 a zaidi

6. Orodha ya watu walio ishi zaidi ya mwezi na wanakula chungu kimoja

Na.	Maumbile1. Mume 2. Mke	Yuko kwa sasa 1. Yuko 2.	MiaakaUmri	Elimu	Kazi	Uhusiano na mkubwa wa nyumba. Andika mkubwa wa nyumba kwanza
1		Hayuko				Mkubwa wa nyumba
2						Wikabwa wa riyamba
3						
4						
5						
6 7						
/						
5 —						
10						
11						
12						
13						
14 15						
Elin	nu .			Kazi/M	radi wa ciki	u: (Inaweza kuwa zaidi ya
4=A 5=A 6=A 7=K 8=A 9= N	liwacha maso Madrassa Mengineo (Ta	e ya msingi e ya upili ule ya upili uu baada y omo ya ms		4=Anap 5=Amej 6=Anae Ii 7=Menq	oata mshaha jiajiri eenda shule ya msi	
7. V	2= 3= 4=	mini wa dir Katoliki Muislamu Waumini v Wengineo Hana dini	va kienyeji			
Maji	i na Usafi:					
8. N	lumekuwa ml	kipata wap	i maji ya kuny	wa mwaka	mzima?	
	2= 3= 4= 5=	: Maji ya m : Kisima : Bwawa : Chemche : Mito	fereji m (Imejengew	a au la)		

6= Borehole

7= Nyinginezo (Taja)

9. Je haya maji yak	ko ni ya kudumu au ni ya	muda?	
	⁄a kudumu Kwa muda		
10. Kama haya ma	iji ni ya muda, je unapata	wapi maji mengine ?	
2= E 3= C 4=M 5= E	Kisima Bwawa Chemchem (Imejengwa a Iito Borehole Nyinginezo (taja)	u la)	
11. Nani huchota n	naji kila siku kwa hii nyum	nba?	
	1= Mume 2= Mke 3= Mtoto		
12. Inawachukua n	nuda gani kuchota maji?	Nakati wa ukame (dakika) Z.Wakati wa mvua (dakika)	
Usafi			
13. Je kuna choo (Uliza, Chunguza na uand	like)?	
1=K 2=H	iko akuna		
14. Kama ndio, and	dika ni choo cha aina gar	i?	
2= 0 3=0 4=0	Choo cha shimo Choo cha shimo kilicho bo hoo cha uwa hoo cha kuvuta /yenginevyo (Taja)	oreshwa	
15. Je choo kinatui	miwa au la (uliza, chungu	za na uandike)?	
	diyo apana		
Mambo yanayosa	babisha umaskini (Kuo	ngezea na yale tumezungum	zia)
16. Ni raisilimali ga	ni mnavyovimiliki?		
2=C 3=R 4=R 5= V 6= E 7=P 8=G 9=T	iko la mafuta ya taa (la ut herahani kadio kuninga Vilbaro Biskeli ikipiki kari ya kibinafsi ingatinga Vifaa vya kulima	ambi)	

		1ifugo (a=Ngon /inginevyo (Taj		i, c=Kuku) Je ung	getaka kute	enganisha hizi?
17.	1 = 2 =	ardhi au umeko Unavyomiliki Umekodisha Zinginezo (taja			-	
18.	Kama jibu la s	swali la 17 ni 1	au 2, uliza ni	kiasi gani?	E	Eka
19.	1=Ya	yumba linakaa ı makuti ımabati	. (a=	ı na uandike)? Yatunzwa au (b: Yatunzwa au (b=		
	1= K	uta za matope	(a	hunguza na uand =Yatunzwa au (b Yatunzwa au (b=	o=la)	
20. Ta	ja njia 3 za ku	ıjipatia pesa uk	ianzia iliyo m	uhimu zaidi		
	2=Kil 3=Bia 4=Ud 5=Uk 6=Uk 7=Ku	kulima (Wa kiny	lumu) iza kwa mfan yumbani kam adi na mapato	o Korosho, Nazi a miogo, viazi tar o kutoka kwa jam	mu etc)	fiki
	a yeyote) 1= N	•	a hii?(Wawe d	chini ya miaka 16	asiye na i	mzazi mmoja au
22. Ka	ama ndio, ni w	angapi?				
Afya:						
23. Ku	1=No 2=Ha			wa mgonjwa siku talo)?	ı 7 zilizopita	a?
Na	Maumbile 1. Mume 2. Mke	Miaka	Ugonjwa		Matibabu	ı
	Z. WIKC					
Angal	ia jadwali ifua	tayo				
2=Ma	umivu ya viun	a na kichwa, vit	ungo vya mw	1=Ha ili) 2=Ma	<i>babu:</i> akuna mati atibabu ya ganga wa l	Miti shamba

Ма	വവ	ทก	va:

4=Minyoo ya	tumbo	4=Kujitibu mwenyewe (kununua dawa)		
5=Homa ya m		5=Daktari wa		
6=Kuhara na	kutapika	6=Hospitali ya	a serikali	
9=Magonjwa		7=Hospitali ya 8=Ziginezo (T		
10=Mtapia ml 11=Megineo (
25: Inakuchuk	kua muda gani kufika kwenye kituo cha matik	oabu ?	Masaa	
26. Ni kituo ch	na aina gani cha matibabu?			
	1= Hospitali za serikali 2= Hospitali za kibinafsi 3= Mganga wa Kienyeji 4= Daktari wa kijiji 5= Vinginevyo (Taja)			
27. Kuna mtu	yeyote mwengine katika nyumba yenu anak	itumia kituo hic	ho?	
	1= Ndiyo 2= Hapana			
28. Kama hav	vakitumii kituo hicho, ni kwa nini?			
	1=Ni mbali sana 2=Ni ghali sana 3=Hukiamini 4=Hakifanyi kazi 5=Hakuna Madawa 6=Wakati mwingi hakuna wauguzi 7=Jinsi wanavyo kuchukulia wauguzi wa ho 8=Mengineo (Taja)	ospitali vibaya		
29. Kama han	ntumii kituo cha afya, munaenda wapi mmoja	a wenu akiwa n	ngonjwa?	
	1=Mganga wa kienyeji 2=Daktari wa kijiji 3=Kujinunulia dawa 4=Mengineo (Taja)			
30. Mumewah	ii kutembelewa na mfanyikazi wa wizara ya a	afya hapa miez	i miyatu ilio pita?	
	1= Ndiyo 2= Hapana			
	reyote katika jamii hii amehusishwa au kupewa h		* *	
	anjo, kampeni ya kupooza, Kupeana vitamini A,	na pampeni ya U	Ikimwi, lishe bora na	
mengineo)	4 Nelice			
	1= Ndiyo 2= Hapana 3= Sijui			
32. Ushawaii I	kusikia kuhusu Ukimwi?			
	1= Ndiyo 2= Hapana			

33. Kuna	a mtu yeyote kwa	nyumba amepewa fursa ya k	upimwa Ukimwi?	
	1=Ndiyo 2= Hapana 3= Sijui			
Mradi W	⁷ a Lishe Bora Kati	ka Jamii (CBNP)		
34. Je u	mewahi kusikia ku	uhusu FLTC/CBNC (Kwa kwa	ashakooni)?	
	1=Ndiyo 2=Hapana			
35. Kam	a ndio, umeshawa	ahi kuhusishwa katika shughu	uli zao za kijiji?	
	1=Ndiyo 2=Hapana			
36. Kam	a ndio, eleza ni sł	nughuli gani?		
	3=Kutembe 4= Kukusai 5= Ratiba y ratiba) 6= Kutekele	a na kueneza habari	shida, Kipao mbele na uteke	elezaji wa
37. Chul	kua vipimo vya m	wanamume vifuatavyo:		
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanza Kipimo cha pili	Kg Kg
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza: Kipimo cha pili	cm cm
38. (i). Chuk	ua vipimo vya mv	vanamke: - (wa kwanza) (Lak	kini asiwe mja mzito)	
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanza Kipimo cha pili	Kg Kg
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza: Kipimo cha pili	
(ii). Chul	kua vipimo vya my	vanamke: -(wa pili) (Lakini a	siwe mja mzito)	
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanza Kipimo cha pili	_
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza: Kipimo cha pili	cm cm

(iii). Chuk	ua vipimo vya m	wanamke: - (wa tatu) (Lakini	asiwe mja mzito)	
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanza Kipimo cha pili	
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza: Kipimo cha pili	
(iv)Chuku	ıa vipimo vya mv	vanamke: - (wa inne) (Lakini a	asiwe mja mzito)	
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanza Kipimo cha pili	
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza: Kipimo cha pili	
(v)Chuku	a vipimo vya mw	anamke: - (wa tano) (Lakini a	asiwe mja mzito)	
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanza Kipimo cha pili	
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza: Kipimo cha pili	
(vi). Chuk	kua vipimo vya m	wanamke: - (wa sita) (Lakini	asiwe mja mzito)	
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanza Kipimo cha pili	
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza: Kipimo cha pili	
39. Chuki	ua vipimo vifuata	vyo kwa watoto wa chini ya n	niaka mitano (Miezi 60)	
1. Mtoto:				
a)	MIAKA:		Mwezi/Mwaka	
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanza Kipimo cha pili	
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza: Kipimo cha pili	
2. Mtoto:				
a)	Miaka:		Mwezi/Mwaka	
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanza Kipimo cha pili	Kg Kg
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza: Kipimo cha pili	cm cm

3.Mtoto:			
a)	Miaka:		Mwezi/Mwaka
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanzaKg Kipimo cha piliKg
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza:cm Kipimo cha pilicm
4.Mtoto:			
a)	Miaka:		Mwezi/Mwaka
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanzaKg Kipimo cha piliKg
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza:cm Kipimo cha pilicm
<u>5.Mtoto:</u>			
a)	Miaka:		Mwezi/Mwaka
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanzaKg Kipimo cha piliKg
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza:cm Kipimo cha pilicm
6.Mtoto:			
a)	Miaka:		Mwezi/Mwaka
a)	UZITO:	(uwe karibu na 0.1kg)	Kipimo cha kwanzaKg Kipimo cha piliKg
b)	UREFU	(uwe karibu na 0.5cm)	Kipimo cha kwanza:cm Kipimo cha pilicm

KAMA JIBU LA SWALI NAMBARI 33 NI NDIO WEKA JUU YA ALAMA

40. Kujishughulisha Kikamilifu

Uliza wenye nyumba walioko maswali manne yafuatayo na uwaulize watahini juu ya alama kumi katika hatua fuatazo

, Y	kumi katika			T	T
Mazingara	1. Njia	2. Nia / Tabia	3. Usambazaji	4. Uwezo wa	Jumla ya alama
yanayohitajika	Ni kwa kiwango	Ni kwa	Je? habari zili	kutumia	
kuhakikisha	gani njia zilizo	kiwango gani	zambazwa kwa	raslimali	
ushirikiano wa	tumika katika	nia na tabia za	wahusika wote	Je ni kwa	
kikamilifu _	kila hatua ya	wasaidishaji	kati kila moja ya	kiwango gani	
	hizi saba	zimeongeza	hatua hizi saba	uwezo wa	
	kiliongeza	kujishughulisha		kutumia	
Tahini juu ya	kujishughulisha	kwako katika		rasilimali	
alama kumi	kwako katika	kila moja ya		kulifaa katika	
kwa kila hatua	maendeleo ya	hatua hizi saba		kuhusika	
	kiafya			kikamilifu	
				katika kila	
				moja ya hatua	
				hizi saba	
Hatua ya 1					
Utafiti wa				1	
kwanza	10				40
Hatua ya 2					
Kujieleza na					
kueneza					
Habari	10				40
Hatua 3					
Kutembea					
Kijijini	10				40
Hatua 4					
Kukusanya					
habari kijijini					
(Ramani ya					
kijiji, kalenda					
ya musimu)	10				40
ya musimu)	10				1
Hatua 5					
Ratiba ya					
Utekelezaji					
(Uchambuzi wa					
shida, Kipao					
mbele na	10				40
utekelezaji wa	10				40
ratiba)					
Hatua 6			1]
Kutekeleza			1		
(Mafunzo ya					1
afya, Mtoto				1	1
kwa mtoto,					1
PET miradi)	10				40
i Li iiiiauij					40
Hatua 7					
Ufwatilizi na					
Ukaguzi	10				40
T 1					
Jumla					
	70	70	70	70	280
	/0	/U	//	/0	200

41. Kuwa na uwamuzi

Nguzo	1. Kubadilika	2. Mabadiliko ya	3. Mabadiliko ya	4. Kuwa na amri	Jumla ya
zinazohitajika	Kibinafsi	taasisi za	kitaluuma	juu ya raslimali	alama
kuhakikisha ushirirkiano wa		kimaendeleo		J J	
kikamilifu	lo ni kwa		lo ni lavo	Je ni kwa	
	Je ni kwa kiwango gani	kwenye vijiji	Je ni kwa kiwango gani	kiwango gani	
Tahini juu ya 👍	katika hatua hizi		katika hatua	katika hatua	
alama kumi	saba zilichangia	Je ni kwa	hizi saba	hizi saba	
kwa kila hatua	mabadiliko ya kibinafsi	kiwango gani katika hatua	zimechangia katika	zimechangia katika kuwa na	
	THE PROPERTY OF THE PROPERTY O	hizi saba	mabadiliko ya	amri juu ya	
		zimechangia kubadilisha	kitaaluma	rasilimali	
↓		taasisi za			
,		kimaendeleo			
		kwenye vijiji			
Hatua ya 1					
Utafiti wa	4.0				
kwanza Hatua ya 2	10				40
Kujieleza na					
kueneza					
Habari	10				40
Hatua 3					
Kutembea	1.0				
Kijijini	10				40
Hatua 4					
Kukusanya					
habari (Ramani ya kijiji,					
kalenda ya	10				40
musimu)					
Hatua 5					
Ratiba ya					
Utekelezaji (Uchambuzi wa					
shida, Kipao					
mbele na					40
utekelezaji wa ratiba)	10				40
- HUNCH					
Hatua 6					
Kutekeleza					
(Mafunzo ya					
afya, Mtoto kwa mtoto, PET	10				40
miradi)	10				40
,					
Hatua 7					
Ufwatilizi na					
Ukaguzi	10				40
Jumla					
	70	70	70	70	280
	/υ	/υ	/υ	/υ	

APPENDIX 14: GUIDELINES FOR FOCUS GROUP DISCUSSION

Notes on Focus Groups: In Focus Groups respondents are brought together in an 'artificial' environment created for a specific purpose, and the data re-examined according to specific methodological criteria. Focus groups can be used as a preliminary study leading to quantitative research, as self contained methods of research, as a supplementary source, or as a part of a multi-methods study. Focus group involve persons specifically selected owing to their particular interest, expertise or position in the community in an attempt to collect information on a number of issues, as well as brainstorming on solution to identified problems, and ultimately facilitate group discussion as a tool of data collection and possible policy development. The aim of the FGD is to gain information in a short time about the scope and depth of opinions on an issue, and of establishing a mechanism of opinion formation.

The basic assumption that underpins FGD is that a group environment will, through mutual stimulation, encourage discussion related to selected issues; increase the motivation to address social and especially critical issues; enable the discussion leader to steer the discussion towards sensitive selected topics through encouragement, discouragement and manipulation of the environment. This is expected to occur when (1) addressing, describing or explaining an issue introduced by the facilitator, (2) comparing different points of view, evaluating views and discussion outcomes, and judging relevant arguments and (3) making decision or drawing conclusions presenting alternative points of view, trying to achieve or suggesting a possible consensus. According to Sarantakos (1998) FGD can serve three purposes:

- provide sufficient information as a pre-research method, such as information about the study objects, defining indicators and possible errors;
- 2. explain trends and variation, reasons and causes as a post-research methods;
- 3. information about group processes, spontaneous feelings, reasons and explanations of attitudes and behaviours in a main study;
- 4. bring about changes in a group and its members as a result of the direction and intensity of the discussion;

5. allow access to valuable information about group processes, attitude changes and manipulation, attitude and opinions of group members, the group or the public and the effectives of certain interventions.

The Focus Group Discussion process: The following are important for a successful process:

- Choice of respondents: Usually a random procedure is chosen that can be justified by the object of study or the underlying methodology. The nature of the questions to be asked determines the structure of the group such as gender, age, similarity or differences.
- 2. The size of the group: This must be large enough to provide basic information for a reasonable discussion but not too large to become uncontrollable. The recommended group size is between 5-12 but not larger than 20.
- Introduction of a goal-directed discussion by the facilitator. The way in which
 this discussion will be introduced, organised and controlled is summarised in
 an interview guide prepared and pre-tested beforehand.
- 4. Timing: A FGD should not run for more than 90 minutes;
- 5. Facilitating the discussion: this should take place by a chosen group leader or facilitator. This person should facilitate but not dominate the discussion, monitor the participation of all participants and encourage, interact, keep the conversation flowing as well as maintaining focus. The following qualities are desirable: theoretical and methodological knowledge of the research topic, experience with group work, leadership qualities and the ability to create rapport;
- 6. Recording the data: The type of the data collected depends on the research questions and the purpose of the study. Both a written and a tape recorded log of events should be undertaken, including the characteristics of the community, date, time (start and finish), place, number and characteristics of the participants (gender, age, social class), major issues covered in the FGD, group dynamics including non-verbal interaction.

Problems encountered with FGD: The following problems could occur:

- 1. People might hide their real opinion due to group pressure
- 2. Problem with recording data

- 3. Domination of the discussion by a few people (gate keepers)
- 4. Some people might want to please leaders for many different reasons;
- 5. Facilitation can lead to manipulation
- 6. Discussion can run out of focus;
- 7. the group can offer a consolidated opinion and mislead the facilitator;
- 8. the findings might not be representative

Focus group Discussion during the main field study:

FGD took place with the following groups:

- 1. Staff from the CBNP headquarters
- 2. District PANS committee
- 3. Divisional PANS committee
- 4. Dispensary health committee from the intervention and the nonintervention sublocation
- 5. Sublocational Development Committee
- 6. Group of villagers (men)
- 7. Group of villagers (women)
- 8. Group of villagers (mixed group)
- 9. Group of TBAs and CHWs

Purpose:

- 1. define terms such as participation and effectiveness
- 2. explore opinions and beliefs about factors facilitating or hindering participation, its effectiveness and impact

Composition and selection of the Focus Groups:

Members of the FGD were selected through a dialogue between the Subchief, the village chairmen and the research team. It was necessary to respect the authority of the leaders, both the formal and the informal, and therefore we could not always ensure that the members of the FGDs were selected without bias

Apart from the headquarters team, each FGD group consisted of at least six people and a facilitator and a note-taker. For FGD held in the field these were facilitated by a Kiswahili/Duruma/Digo speaking field assistant, while the FGD at Divisional and higher level were facilitated by the main researcher. One trained note taker and one trained observer chosen from the four field assistants were facilitating and observing during the FGD in the field. The gender and characteristic of the facilitator and note taker were chosen based on the community members to be interviewed.

The role of the facilitator and note taker:

The facilitator was responsible for ensuring that both the environment of the focus groups was relaxed and that each member of the focus group was encouraged to speak. Furthermore, the facilitator ensured that the discussion was not dominated by few individuals. The facilitator introduced the participants and ensured that each participant got a number so they could be recognised during the transcription process. He/she then introduced the purpose and topic for the focus group discussion, asks for oral consent and ensured confidentiality and thereafter started up the discussion. Specific questions were used to prompt and clarify discussion on sensitive issues and to ensure that women had a voice. The general and insensitive questions were asked first and later the more specific. Towards the end of the FGD the facilitator prepared the members for the closure by summarise their opinions and statements. Each participant was given ½ kg of rice in appreciation of the time used. The note-taker was responsible for maintaining a written record of the FGD event which included: 1) all the names, gender, estimated age and characteristics of the participants; the date, starting and ending time and the issues discussed. Moreover, the note-taker was recording non-verbal communication, interaction and exchange. The transcription of the interview was done by one of the field assistant and the main researcher.

Guidelines for participants:

The FGD will lasts between 60 and 90 minutes and will tape recorded. Furthermore notes will be taken to validate the statement by non-verbal communication. Participants can speak in their local language but need to speak clearly and loud. There are no right or wrong answers and the participants should really say what they think.

GUIDELINES FOR FACILITATING THE FOCUS GROUP DISCUSSION

Introduction:

Thank you for being willing to take part in this group discussion. My name is _____ and I am assisting Dr. Kirsten Havemann who is a PhD student in her research on health and nutrition.

The aim of this interview is to assess the effectiveness of the PANS process implemented by the Community Based Nutrition Programme in the Department of Social Services since 1998.

You might be aware that this research team has undertaken a survey in Mazumalume and Simkumbe sublocations aiming at assessing the nutritional status of parents and children under 5 years of age. We are now finalising this survey and it is therefore important for us to understand why and how changes in the nutritional status of parents and children have come to happen. We are asking questions about community participation (and the PANS process). The interview will happen in two phases. Fist we will ask general questions about participation and for those of you who have participated in and know about the PANS process we will like to ask additional questions. Your view is very important to us and we ensure you that any information given will be treated confidentially.

We will like to record this interview so the information can analysed. We therefore ask your permission to use this tape-recorder. When we finalise the analysis we will organise a feed back session to you and the community at large.

This interview is schedules to take about 1 hour.

Do you have any questions before we start??

Participation:

- 1. What does participation mean to you?
- 2. How can participation effectively take place in the community?

(probe into what needs to be done to achieve this, where it should take place, when it should take place such as timing of the year, timing of the day, how should it be done and by whom, why)

- 3. In your view, what can facilitate or hinder participation?
- 4. How will you assess that participation (such as the PANS process) has been successful?
- 5. If the CBNP was to start today what would you do different?

For the PANS process:

- 1. Can I first ask you about the PANS process and participation?
 Can you tell me what PANS means?
 How many of you have been involved in the PANS process?
- 2. If you have been involved in the PANS process, which step, if any, were you involved in?
- 3. What did you enjoy (or find most useful) about the PANS process? (probe into methods, sharing, behaviour/attitude, and resource)?
- 4. What did you enjoy least/was least useful?
- 5. What problems, if any, did you experience during this process?
- 6. Did you see any change in the health and nutritional status of the children under five years of age in Mazumalume after the PANS process was completed? If yes, probe into what kind of changes.
 Do you want to give 2 or 3 examples?
- 7. How can the PANS process be improved? By whom, when, where and what part of the process?

8. If you were not involved in the PANS process, what was the reason?

Thank you very much for helping us and giving up your time. Can I finally ask if you think that there - in your experience – is any aspect of participation and the PANS process that you find very important and that has not been covered in this interview?

APPENDIX 15: FACTORS ASSESSED AFFECTING THE NUTRITIONAL STATUS

Factors:	Sublocations		Total	Total Value df		Chi-
	Mazumalume (I)	Simkumbe (NI)				square Asymp. Sig. (2- sided)
Age head of HH	37.35 years (mean age)	45.86 years (mean age)				.000 (S) (ANOVA)
Sex of head of HH	M 144 (87.7%) F: 26 (15.3%)	M: 162 (84.8%) F: 29 (15.2%)	306(84.8%) 55 (15.2%)	001	1	.977 (NS)
No. of people per HH	6.03	7.49				.000 (S) (t-test)
No. of children per HH	1.78	1.87				.325 (NS) (t-test)
Marital status of head of HH	S: 7 (4.1% MM:130(76.5%) MP: 16 (9.4% SE: 2 (1.2% DI: 1 (0.6% WI: 14 (8.2%)	S: 1 (0.5%) MM:134(70.2%) MP: 26 (13.6%) SE: 2 (1.0%) DI: 10 (5.2%) WI: 18 (9.4%)	8 (2.2%) 264(73.1%) 42 (11.6%) 4 (1.1%) 11 (3.0%) 32 (8.9%)	13.630	5	.018 (S)
Ethnic Group	DI: 54 (31.8% DU: 80 (47.1% GI: 8 (4.7% KA: 23 (13.5% OT: 4 (2.4% MI: 1(0.0%)	DI: 167(87.4%) DU: 13 (6.8%) GI: 2 (1.0%) KA: 0 (0%) OT: 9 (4.7%) MI: 0 (0%)	221(61.2%) 93 (25.8%) 10 (2.8%) 23 (6.3%) 13 (3.6%) 1 (0.3%)	134.805	5	.000 (S)
Age of spouse when marrying	≤ 18y 69(40.6%) 18-2588(51.8%) 26-40:12 (7.1%) 41-60: 1 (0.6%)	≤ 18ys:41 (21.5%) 18-25:131 (68.6%) 26-40 ys:17 (8.9%) 41-60 yrs:2 (1.0%)	110(30.5%) 219(60.7%) 29 (8.0%) 3 (0.8%)	15.597	3	.001 ¹⁵ (S)

M= Male, F=Female, S= Single, MM= Married Monogamous, MP=Married Polygamous, SE= Separated, DI=Divorced, WI=Widowed. DI=Digo, DU=Duruma, GI=Giriama, KA=Kamba, OT=Others, MI=Missing. I=intervention, NI=non-intervention, S=Significant, NS=non-significant

Table A6: Factors assessed and of importance for nutritional outcomes.

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 $^{^{\}rm 15}$ Change to non-significant by exzcluding villages close to the main road

APPENDIX 15 ct.
FACTORS ASSESSED AFFECTING THE NUTRITIONAL STATUS

Factors:	Sublo	cations	Total	Value	dF	Asymp.
	Mazumalume (I)	Simkumbe (NI)				Sig. (2-sided)
Educational	NA: 37 21.8%)	NA: 64 (33.7%)	101(28.1%)	36.978	10	$.000^{16} (S)$
status of	AN: 1(.6%)	AN: 0 (0%)	1 (0.3%)			
head of HH	AP: 3 (1.8%)	AP: 0 (0%)	3 (0.8%)			
	CP: 19 (11.2%)	CP: 22 (11.6%)	41 (11.4%)			
	CF: 44 (25.9%)	CF: 64 (33.7%)	108(30.0%)			
	AS: 2 (1.2%)	AS: 2 (1.1%)	4 (1.1%)		100	
	PS: 4 (2.4%)	PS: 14 (7.4%)	29 (8.1%)			
	MA: 1 (0.6%)	MA: 7 (3.7%)	8 (2.2%)			
	DP: 28 (16.5%)	DP: 11 (5.8%)	39 (10.8%)			
	OT: 16 (9.4%)	OT: 2 (1.1%)	18 (5.0%)			
Educational	NA: 69(41.8%)	NA:91 (45.0%)	160	33.660	10	.000 (S)
status of	AN: 4 (2.4%	AN: 1 (0.5%)	(43.6%)			
wives	AP: 2 (1.2%)	AP: 1 (0.5%)	5 (1.4%)			
	CP: 23 (13.9%)	CP: 26(12.9%)	3 (0.8%)			
	CF: 30 (18.2%)	CF: 65(32.2%)	49 (13.4%)			
	AS: 2 (1.2%)	AS: 0 (0%)	95 (25.9%)			
	CS: 3 (1.8%)	CS: 8 (4.0%)	2 (0.5%)			
	PS: 2 (1.2%)	PS: 2 (1.0%)	11 (3.0%)			
	DP: 19 (11.5%)	DP: 7 (3.5%)	4 (1.1%)			
	MA: 3 (1.8%)	MA: 1 (0.5%)	26 (7.1%)			
	OT: 8 (4.8%)	OT: 0 (0%)	4 (1.1%)			
	· · · · · · · · ·		8 (2.2%)			
Occupation	NE: 1 (0.6%)	NE: 15 (7.9%)	16 (4.4%)	30.406	6	.000 (S)
of head of	HW: 3 (1.8%)	HW: 15 (7.9%)	18 (5.0%)			
HH	FA: 68 (40.0%)	FA: 44 (23.2%)	112(31.1%)			
	SaE: 24(14.1%)	SaE: 40(21.1%)	64 (17.8%)			
	SE: 54 (31.8%)	SE: 60 (31.6%)	114(31.7%)			
	ST: 0 (0%)	ST: 1 (0.5%)	1 (0.3%)			
	OT: 20 (0%)	OT: 15 (7.9%)	35 (9.7%)			
Religion of	Cat: 10 (5.9%)	Cat: 1 (0.5%)	11 (3.1%)	54.527	3	.000 (S)
head of HH	Mu111(65.7%)	Mu:182(95.8%)	293(81.6%)			
	Ot: 36 (21.3%)	Ot: 4 (2.1%)	40 (11.1%)			
	No: 12 (7.1%)	No: 3 (1.6%)	15 (4.2%)			

NA=never attended school, AN= attending pre-school, AP=attending primary school, CP=Completed primary school, CF=Completed St. 5-9, AS=Attending secondary school, CS= completed Secondary, PS=Post Secondary education, Ma=Madras a, DP= Drop Out, OT=others.

NE=Never employed, HW=house wife, FA=Farming, SaE=Salaried Employment, SE=Self Employed, ST=Student, Ot=others.

Cat=Catholic, Mu=Muslim, Ot=other religions, No=No religion.

Table A7: Factors assessed and of importance for nutritional outcomes.

 $^{^{16}}$ There was no difference between the 2 sublocations, if persons who dropped out and/or never attended school were excluded.

APPENDIX 15ct. FACTORS ASSESSED AFFECTING THE NUTRITIONAL STATUS

Factors:	Sublocations		Total	Value	dF	Asymp.
	Mazumalume (I)	Simkumbe (NI)				Sig. (2-sided)
Water and	PW: 4 (2.4%)	PW:72(37.9%)	76 (21.2%)	231.67	6	.000 (S)
Sanitation:	W:136(80.5%)	W: 12 (6.3%)	148 (41.2%)			
Main	DA: 5 (3.0%)	DA: 0 (0%)	5 (1.4%)			
source of	PS: 12 (7.1%)	PS: 60 (31.6%)	72 (20.1%)			
drinking	RI: 7 (4.1%)	RI: 18 (9.5%)	25 (7.0%)			
throughout	BO: 2 (1.2%)	BO: 28(14.7%)	30 (8.4%)			
the year	OT: 3 (1.8%)	OT: 0 (0%)	3 (0.8%)			
Permanent	Yes:50(29.6%)	Yes:116(61.1%)	Yes:169(100%)	35.627	1	.000 (S)
Seasonal	Yes:119(70.4%)	Yes: 74 (38.9%)	No:190 (100%)			
Alternative	W: 86 (60.1%)	W: 3 (3.8%)	W: 89 (40.3%)	140.297	5	.000 (S)
water	DA: 5 (3.5%)	DA: 0 (0%)	DA: 5 (2.3%)			
source	PS: 9 (6.3%)	PS: 37 (47.4%)	PS: 46 (20.8%)			
during dry	RI: 30 (21.0%)	RI: 2 (2.6%)	RI: 32 (14.5%)			
season	BO: 1 (0.7%)	BO: 26 (33.3%)	BO:27 (12.2%)			
	OT: 12 (8.4%)	OT: 10 (12.8%)	OT:22 (10.0%)			
Person	Man: 15 (8.9%)	Man: 15 (7.9%)	Man:30 (8.4%)	7.323	2	.026 (S)
collecting	Wo:154(91.1%)	Wo:167(87.9%)	Wo321(89.4%)			
water	Child: 0 (0%)	Child: 8 (4.2%)	Child: 8(2.2%)			- 15 may
Time to	61.19 min.	24.99 min.				.000 (S)
collect	(mean time)	(mean time)				(Anova)
water in						
dry season						
Time to	19.22 min.	11.82 min.				.000 (S)
collect	(mean time)	(mean time)				(Anova)
water in						
wet season						
Toilet	Yes: 55(32.7%)	Yes:101(53.2%)	156 (43.6%)	15.121	1	$.000^{17}$
present	No113 (67.3%)	No: 89 (46.8%)	202 (56.4%)			(S)
Type of	PL: 53 (89.8%)	PL: 87 (87.0%)	PL:140 (88.1%	4.689	4	.321
toilet	VL: 5 (8.5%)	VL: 8 (8.0%)	VL: 13 (8.2%)			(NS)
	SH: 0 (0%)	SH: 4 (4.0%)	SH: 4 (2.5%)			
	FT: 0 (0%)	FT: 1 (1.0%)	FT: 1 (0.6%)			
	OT: 1 (1.7%)	OT: 0 (0%)	OT: 1 (0.6%)			
Toilet use	Yes: 54 (93.1%)	Yes: 85 (69.7%)	Yes:139(77.2%	12.270	1	.000 (S)
	No: 4 (6.9%)	No: 37 (30.3%)	No: 41 (22.8%			

PW=Piped water, W=Well, DA=Dam, PS=Protected Spring, RI=River, BO=Borehole, Ot=others.PL=Pit Latrine, VP=ventilated Improved Pit latrine, SH=Shelter, FT=Flush Toilet, OT=others

Table A8: Factors assessed and of importance for nutritional outcomes.

 $^{^{\}rm 17}$ Change to non-significant when villages close to the road excluded

APPENDIX 15ct. FACTORS ASSESSED AFFECTING THE NUTRITIONAL STATUS

Poverty	Sublo	ocations	Total	Value	dF	Asymp.
Factors:	Mazumalume (I)	Simkumbe (NI)				Sig. (2-sided)
Access to land	OL: 70(60.3%) RE: 8 (6.9%) OT: 37(31.9%) MI: 1 (0.9%)	OL:166(88.3%) RE: 9 (4.8%) OT: 13 (6.9%) MI: 0 (0%)	236(77.6%) 17 (5.6%) 50 (16.4%) 1 (0.3%)	36.632	3	.000 (S)
Amount of land owned	6.88 acres (Mean score)	4.49 acres (mean score)				.001 (S) (Anova)
Housing: 1.Roof 2. Wall	TR151 (89.9%) IR: 17 (10.1%) M155 (92.8%)	TR: 148 (77.9%) IR: 42 (22.1%) MW: 96 (51.9%)	299 (83.5%) 59 (16.5%) 251 (71.5%)	10.426 73.397	2	.005 (S)
3.Main source of	BW:12 (7.1%) PE: 20 (11.9%) CW:45(26.8%)	BW: 88 (47.6%) PE: 64 (33.7%) CW: 34 (17.9%)	100 (28.5%) 84 (23.5%) 79 (22.1%)	52.925	7	.000 (S)
income	PB: 31 (18.5%) TR: 25 (14.9%) FA: 17 (10.1%)	PB: 15 (7.9%) TR: 16 (8.4%) FA: 3 (1.6%)	46 (12.8%) 41 (11.5%) 20 (5.6%)			
	Fa: 25 (14.9%) GI: 2 (1.2%) OT: 3 (1.8%)	Fa: 39 (20.5%) GI: 3 (1.6%) OT: 16 (8.4%)	64 (17.9%) 5 (1.4%) 19 (5.3%)			

Ol=Own land, RL=rent land, OT=others, MI=data missing. TR= Thatched roof, IR=iron sheet roof. M or MU= Mud wall, BW=Brick Wall. PE=Permanent Employment, CW=Casual work, PB=Permanent business, TR=trading, FA=Farming (sell of cash crop), Fa=Farming (sell of staple food), GI=Gift, OT=others

Table A9: Factors assessed and of importance for nutritional outcomes.

APPENDIX 15ct.

FACTORS ASSESSED AFFECTING THE NUTRITIONAL STATUS

Factors:		cations	Total	Value	dF	Asymp.
	Mazumalume (I)	Simkumbe (NI)				Sig. (2-sided)
Orphans: 1.No. of head of HH having	31 4% of all HHs)	39 (1.9% of all HHs)	70	11.404	8	.180 (NS)
orphans 2.No. of orphans per HH	2.74	1.87	2.25			
Health: Disease patterns:	Art: 4 (3.3%) Mala: 51(42.2%) Ab.pa: 7 (5.8%) URTI:20(16.5%) Di/Vo: 2 (1.7%) Cou: 4 (3.3%) TB: 1 (0.8%) Sk.Di: 9 (7.4%) Malnut. 1 (0.8%) Ot.: 22 (18.2%)	Art: 4 (2.5%) Mala:65(40.1%) Ab.pa:3 (1.9%) URTI:31(19.1%) Di/Vo: 6 (3.7%) Cou: 24(14.8%) TB: 1 (0.6%) Sk.Di: 2 (1.2%) Malnut. 0 (0%) Ot.: 26(16.0%)	Art: 8 (2.8%) M:116(41.0%) Ab:10 (3.5%) U:51 (18.0%) Di/V:8 (2.8%) Co:28 (9.9%) TB:2 (0.7%) Sk:11 (3.9%) Maln:1 (0.4%) Ot: 48 (17%)	22.263	9	.008 (S)
Preferred type of treatment:	NoT: 4 (3.3%) TT: 5 (4.1%) TFH: 4 (3.3%) SM: 35 (28.9%) CHW: 6 (5.0%) GoK: 62 (51.2%) PH: 2 (1.7%) Ot: 3 (2.5%)	NoT: 3 (1.9%) TT: 9 (5.6%) TFH: 0 (0%) SM: 43(26.5%) CHW: 3 (1.9%) GoK: 76(46.9%) PH: 26 (16.0%) Ot: 2 (1.2%)	NoT: 7 (2.5%) TT: 14 (4.9%) TFH: 4 (1.9%) SM: 78(27.6%) CHW:9 (3.2% GoK:138(48.8%) PH: 28 (9.9%) Ot: 5 (1.8%)	23.859	7	.001 (S)
Reason for not using nearest health facility	VF: 1 (20%) Exp: 0 (0%) DB: 2 (40%) PMA: 1 (20%) Ot: 1 (20%)	VF: 8 (42.1%) Exp: 8 (42.1%) DB: 0 (0%) PMA: 2 (10.5%) Ot: 1 (5.3%)	VF: 9 (37.5%) Exp: 8 (33.3%) DB: 2 (8.3%) PMA: 3(12.5%) Ot: 2 (8.3%)	11.357	4	.021 (S)
Alternative choice of treatment	TrHe: 4 (80%) SM: 0 (0%) Ot: 1 (20%)	TrHe: 1 (6.3%) SM: 7(43.8%) Ot: 8 (50%)	TrHe: 5 (23.8%) SM: 7 (33.3%) Ot: 9 (42.9%)	11.690	2	.003 (S)
Time to nearest health facility	87.71 min. (mean time)	82.04 min. (mean time)			358 (t- test)	.309 (NS)
Any head of household members been sick	Yes: 122 (80.3%) No: 30 (19.7%)	Yes: 161(84.7%) No: 29(15.3%)	283 (82.7%) 59 (17.3%)	1.184	1	.172 (NS)
Type of health facility	GK: 162 (98.2%) PF: 2 (1.2%) TH: 1 (0.6%) CHP: 0 (0%)	GK: 168 (88.9%) PF: 20 (10.6%) TH: 0 (0%) CHP: 1 (0.5%)	330 (93.2%) 22 (6.2%) 1 (0.3%) 1 (0.3%)	15.279	3	.002 (S)
HH visited by MoH	Yes: 8 (4.8%) No: 158 (95.2%)	Yes: 21 (11.1%) 169 (88.9%)	29 (8.1%) 327 (91.9%)	4.601	1	.024 (S)
Any member of HH part. in any health activity	Yes: 20 (12.1%) No: 145 (87.9%)	Yes: 68 (35.8%) No: 122 (64.2%)	88 (24.8%) 267 (75.2%)	26.534	1	.000 (S)

Art.=Arthritits, Mala=Malaria, Ab.pa.=Abdominal pain, URTI=Upper Respiratory Tract Infection, Di/Vo=Diarhoea and vomiting, Cou=Cough, TB=Tuberculosis, Sk.Di=Skin Diseases, Malnut=Malnutrition, NoT=No treatment, TT=Traditional treatment (herbs), TFH=Traditional Faith Healers, SM=Self medication, CHW=Community Health Worker, GoK=GoK health facility, Ot=Others, VF=Very far, Exp=Expensive, DB=Don't believe, PMA=Poor motivation and attitude of staff, Ot=Others, TrHe=Traditional Healer, PF=Private Facility, TH=Traditional Healer, CHP=Community Health Post.

Table A10: Factors assessed and of importance for nutritional outcomes.

Factors	Sublocations		<u>Total</u>	Value	dF	Asymp.
	Mazumalume (I)	Simkumbe (NI)				Sig. (2- sided)
HIV/AIDS						
1.Heard	Yes: 161(97.0%	Yes:187(98.4%)	348(97.8%)	.828	1	.290
about	No: 5 (3.0%)	No: 3 (1.6%)	8 (2.2%)			(NS)
HIV/AIDS						
2.Offered	Yes: 8 (4.8%)	Yes: 38 (20.0%)	46(12.9%)	18.446	2	
HIV test	No: 156(94.0%)	No: 151(79.5%)	307(86.2%)			.000
	DN: 2 (1.2%)	DN: 1 (0.5%)	3 (0.8%)			(S)
CBNP:						
Heard	Yes:148(89.7%)	Yes:26(13.8%)	174(49.3%)	202.359	1	.000
about	No: 17 (10.3%)	No:162(86.2%)	179(50.7%)			(S)
CBNP		, i				

Table A11: Factors assessed and of importance for access to services and nutritional outcomes.

APPENDIX 16: HISTOGRAM WAZ, WHZ AND HAZ SCORES

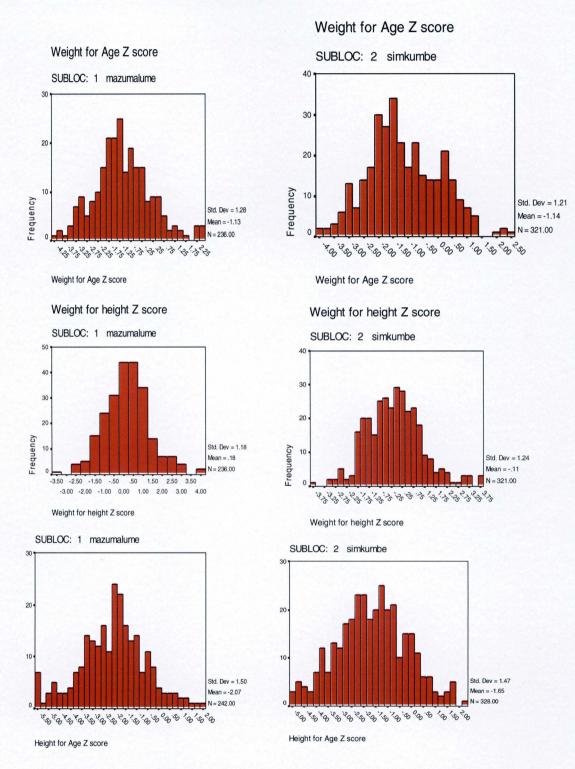


Figure A7: Histograms of WAZ, WHA and HAZ of children under 5 years in Mazumalime (intervention) and Simkumbe (non0intervention) sublocation.

APPENDIX 17: BODY MASS INDEX OF HEAD OF HOUSEHOLDS IN MAZUMALUME (INTERVENTION) AND SIMKUMBE (NON-INTERVENTION)

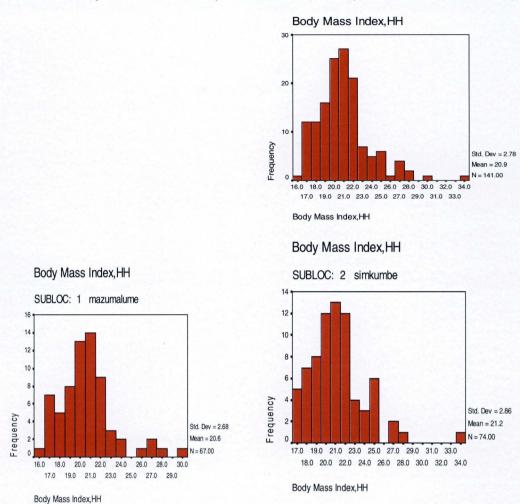
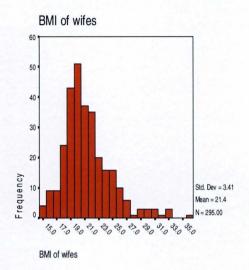


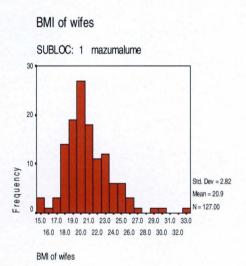
Figure A8: Histograms of BMI (overall) and for Mazumalume (intervention) and Simkumbe (non-intervention) sublocation.

Sublocation	No. of HH	Mean	Sig.
Mazumalume	74	20.6898	.412
Simkumbe	76	21.0581	
Total	150	20.8764	

Table A12: Number and mean score for BMI of Head of Households.

APPENDIX 17ct. BODY MASS INDEX OF WOMEN IN MAZUMALUME (I) AND SIMKUMBE (NI) SUBLOCATIONS





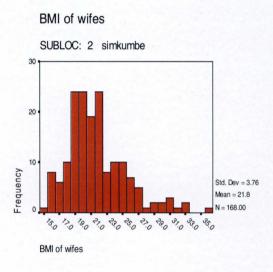
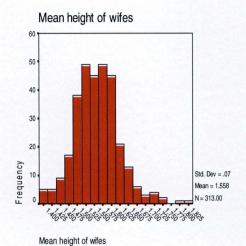
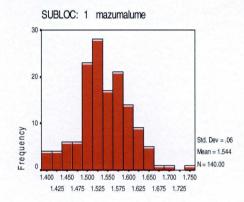


Figure A9: BMI for females (wives) from Mazumalume (intervention) and Simkumbe (non-intervention) sublocation.

APPENDIX 18 HEIGHT OF WOMEN IN MAZUMALUME AND SIMKUMBE SUBLOCATIONS



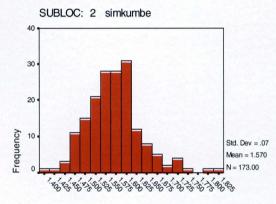
Mean height of wifes



Mean height of wifes

Figure A10: Mean height of women and in Mazumalume (intervention) and Simkumbe(non-intervention) sublocation

Mean height of wifes



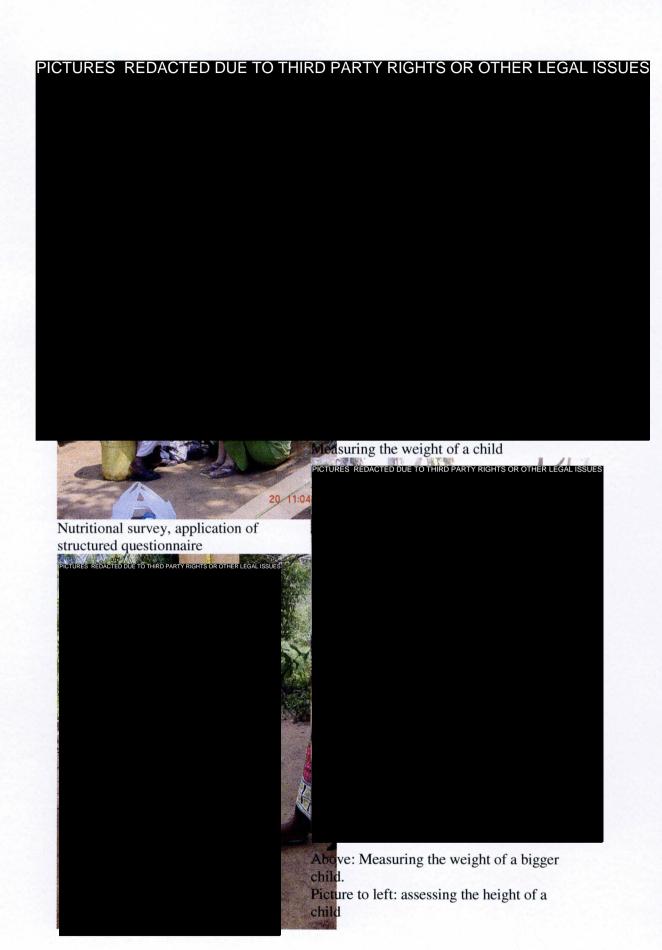
Mean height of wifes

	Sublocation	Number	Mean	Sign.
Mean weight of women	Mazumalume (I)	132	50.0886	.001
- 10	Simkumbe (NI)	169	54.1651	
Mean height of women	Mazumalume (I)	144	1.5443	.885
	Simkumbe (NI)	174	1.5687	

Table A13: Number, mean weight and height of women in Mazumalume(intervention) and Simkumbe (nonintervention)sublocation

APPENDIX 19: PHOTO RECORDS OF THE FIELD WORK

PICTURES REDACTED DUE TO THIRI	D PARTY RIGHTS OR OTHER LEGAL ISSUES
Research team arriving for Baraza	Recognition of local leaders during Baraza
PICTURES REDACTED DUE TO THIS	RD PARTY RIGHTS OR OTHER LEGAL ISSUES
Research team member explaining	Mapping the village on the ground
height board	DADTY DOUGLO OF STUED LEGAL HOUSE
PICTURES REDACTED DUE TO THIRD	PARTY RIGHTS OR OTHER LEGAL ISSUES
Baraza, introducing research and plans	Marking the different households on the ground



PICTURES REDACTED DUE TO THI	RD PARTY RIGHTS OR OTHER LEGAL ISSUES
Focus Group Discussion, woman	Visualisation/scoring for the spider diagram
Focus Group Discussion, women	visualisation/scoring for the spider diagram
group	
PICTURES REDACTED DUE TO THIR	D PARTY RIGHTS OR OTHER LEGAL ISSUES
	NA PROBAGING TO THE PROPERTY OF THE PROPERTY O
Focus Group Discussion, Male	A Village Research Coordinator
Group	
PICTURES REDACTED DUE TO THIS	RD PARTY RIGHTS OR OTHER LEGAL ISSUES
Focus Group Discussion, Dispensary	
Committee	The Research Team

