

Mapping the Impact of Landmines

The Integration of Socio-Economic Indicators Within the National Landmine Impact Survey in Mozambique

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The views and interpretations expressed in this thesis is the authors alone and do not necessarily reflect those of the PRIO or of the AMAC project. Furthermore, I would like to emphasise that the thesis should be read as an academic text aiming to shed light on the shift toward the valorisation of local knowledge. This thesis is not, nor is it intended to be, an evaluation of the organisations that have facilitated my study.

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Contents

List of Abbreviations	iv
Map of Mozambique	v
Chapter 1 Introduction	1
1.1 The shift toward local knowledge	1
1.2 The Mozambique LIS	4
1.3 Aim of the thesis	5
1.4 An overview of the general contents of the thesis	7
Chapter 2 Methodology	9
2.1 Research strategy	9
2.2 Studying the LIS survey	12
2.3 Conducting a community study in Chifunde	13
2.3.1 Choice of informants	14
2.3.2 The interviews	16
2.4 Documentation review and interviews with key HMA actors	18
2.5 Data analysis	20
2.6 Ethical considerations	22
2.7 Concluding remarks	23
Chapter 3 General Trends in Development Aid and Post-War Reconstruction	25
3.1 The shift toward participatory approaches	25
3.1.1 Describing the shift	26
3.1.2 Analysing the shift	27
3.2 The participatory approaches	29
3.2.1 Understanding participation	29
3.2.2 Impact assessments using participatory approaches	32
3.2.3 Criticism against the participatory approaches	33
3.3 Shift within mine action theory and policy	36
3.3.1 The quiet revolution	37
3.3.2 The Mozambique LIS	39
3.4 Concluding remarks	43
Chapter 4 The Chifunde Case Study	45
4.1 Community background	46
4.2 Economic field	48
4.3 Human field	53
4.4 Social field	57
4.5 Administrative concerns and district impact	60

4.6	Concluding remarks.....	61
Chapter 5	The LIS Mozambique Use of Participation.....	63
5.1	Participation and representativity in the Mozambique LIS survey	63
5.1.1	Composition of the Chifunde group interview	64
5.1.2	Representation in the survey.....	65
5.1.3	The power of participation	67
5.1.4	Representativity or local expert opinion.....	69
5.2	Group dynamics and access to local realities	71
5.2.1	Trust and access to information.....	71
5.2.2	Participatory aspects of the LIS.....	72
5.2.3	Adapted response to survey focus	74
5.3	Concluding remarks.....	77
Chapter 6	The Survey Data and Analysis	79
6.1	The LIS Mozambique analysis of the survey data	79
6.1.1	The Mine Impact Score	79
6.1.2	Composite indicators and the recording of landmine problems	82
6.1.3	The analytical process	89
6.2	The findings of impact in Chifunde and the resulting data	90
6.2.1	Description of the minefields in Chifunde	90
6.2.2	Mapping impact for several minefields	93
6.2.3	How is the Chifunde landmine impact reflected in the analysis?.....	94
6.3	Can local knowledge form HMA policy and practice?	97
6.3.1	The shift revisited	98
6.3.2	The relation between data and analysis	99
6.3.3	Whose standardisation.....	101
6.4	Concluding remarks.....	102
Chapter 7	Conclusion.....	105
	Bibliography	109
	Appendix A: Plan of Inquiry	115
	Appendix B: Interview Register	116
	Appendix C: Map of Chifunde	118
	Appendix D: Mine Impact Score for Chifunde	119

List of Tables

Table 1: From professional to community definition of impact	42
Table 2: Composite indicators as inhabiting a middle ground within the shift	99

List of Abbreviations

AMAC - Assistance to Mine-Affected Communities

CIDA - Canadian International Development Agency

CIDC - Canadian International Demining Corps

CSA - Community Services Approach

CVA - Capacities and Vulnerabilities Analysis

FRELIMO - Frente de Liberação de Moçambique (Mozambique Liberation Front)

GLS - Global Landmine Survey

HMA - Humanitarian Mine Action

ICBL - International Campaign to Ban Landmines

IDP - Internally Displaced Persons

IMSMA - Information Management System for Mine Action

IND - Instituto Nacional de Desminagem (National Demining Institute)

LIS - Landmine Impact Survey

MIS - Mine Impact Score

NPA - Norwegian Peoples Aid

PPA - Participatory Poverty Assessments

PRA - Participatory Rural Appraisal

PRIO - International Peace Research Institute, Oslo

RENAMO - Resistência Nacional Moçambicana (Mozambique National Resistance)

SAC - Survey Action Centre

STD - Sexually Transmitted Diseases

UXO - Unexploded ordinance

WB - World Bank

Map of Mozambique



Map No. 3706 Rev. 2 UNITED NATIONS
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Chapter 1

Introduction

There can be no response initiatives without a plan and there can be no plan without an understanding of the problem.
(McGrath, 2000:85)

This thesis will study the changes taking place in Humanitarian Mine Action (HMA) in light of a general shift toward participatory approaches in development theory and policy. HMA in Mozambique is undergoing a transition affecting the very definition of the landmine problem; the focus of study is shifting from the minefield to the community, thereby shifting the problem analysis away from seeing landmines as the threat in themselves towards understanding how landmines affect the community in which they are placed. This shift entails a radical rethinking of the concept of impact and a need for new indicators that can reflect the impact of landmines on the community. This challenge has been met through the establishment of a national Landmine Impact Survey (LIS) using community participation to assess landmine severity. This thesis will argue that although the concept of impact has been redefined to reflect how communities are affected by landmines, the tool established to understand and reflect local landmine severity is unable to fully access local knowledge and analysis or to enable local realities to be reflected in the priorities for mine action.

1.1 The shift toward local knowledge

The past decade has seen a change in development policies. Focus has moved away from the holistic state- and market-oriented development strategies toward the empirical local participation for development. Priorities are no longer set by outside experts but as a result of community analysis of the local context. Robert Chambers (1995), one of the leading analysts within the development of participatory approaches, has gone as far as to call it a shift of paradigms.

This substantial shift is aided by the fact that two opposing positions in development theory, the new left and the new right, have converged in the attention given to the grass-root level and the valorisation of local knowledge (Mohan and Stokke, 2000). This convergence is

caused by a joint frustration over the dysfunction of states and markets as well as their inability to promote sustained growth and empowerment. The state is still an important actor in the development arena, although its role is drastically reduced compared with its position in early development economic theories. Today the state in developing countries (primarily African) is often described as being “bloated” or as a patrimonial network guided by the politics of the belly (Chabal and Daloz, 1999; Bayart, 1993). Market deregulation was long seen as the better development strategy but proved to have dramatic side effects as markets in developing economies were not fully developed and in need of further support structures to penetrate down and generate generalised growth. These strategies were seen to be holistic in the sense that their logic sought unified solutions for the whole body of development challenges. This holistic focus has come to be seen as ineffective for targeting poverty, and the importance of the strategies has been challenged by approaches that are more empirically based and responsive to local contexts. In this way there has been a shift that emphasises two parallel concerns, the neoliberal need to bypass states and markets but also the more radical need to empower marginalized groups in their relations to states and markets (Mohan and Stokke, 2000).

The new orthodoxy has evolved around the use of participatory approaches with the broad aim of increasing the involvement of socially and economically marginalized people in decision making that regards their own lives. The approaches enable communities to define their problems, analyse their situation and develop solutions that would resolve their vulnerabilities. The approaches aim to build community ownership of the development process, making development organisations facilitators in community initiatives. The community provides the expert knowledge and the situation analysis based on the local context and understanding of the problem complex, contrary to traditional holistic development assistance in which situation analysis is conducted by outside professionals, often based on blueprint policy recommendations from New York or Washington.

This thesis highlights a parallel between the shift within mine action and a general shift within development thinking. Perhaps due to its background and short history, mine action has, more than most other development and reconstruction initiatives, been centrally planned and executed. Operational success has been measured through cost effectiveness and the number

of munitions that are removed. Improvements have been measured in more effective clearing techniques and better ratings of the number of munitions cleared per dollar. The reason for this may be that, historically, landmine clearance has been conducted by military personnel with knowledge of explosives disposal. This foundation lingered on as mine action¹ developed into an emergency activity, with priority given to facilitating the rapid repatriation of refugees or to enable swift deployment of emergency aid through the clearing of roads and infrastructure. Effectiveness being a key word, this led to a strict organisational discipline, usually similar to military command structures. Such organisational characteristics have produced centrally planned initiatives with little ability to adapt to local conditions. The assessment of landmine severity was set by outside professionals, who gave priority to emergency operations.

This way of conducting HMA failed to address to what extent the problems caused by landmines affect the local community, and demining organizations paid little or no attention to local needs and assessments when setting priorities for their activity. The result was that HMA projects were not necessarily channelled to those communities where the impact of landmines was the most severe.

During the second half of the 1990s the International Campaign to Ban Landmines (ICBL) became a potent political movement that inspired the establishment of an international law against production, stockpiling, transfer and use of landmines by December 1997. This political and civic movement was vital to strengthen the humanitarian aspects of HMA and to move away from the exclusive focus on the technicalities of clearing explosive devices, which had separated mine action from other forms of emergency and development initiatives. With the growth of the international campaign and the consolidation of HMA within the humanitarian sector, the need for new indicators of success emerged. HMA organisations needed to be able to assess how landmines affected the communities in which they were placed. One response was the development of a new means for assessing the effects of landmines, the Landmine Impact Survey, which placed the community at the centre of analysis. The growing attention to socio-economic impact represents a quiet revolution in

¹ The use of the term mine action will refer to HMA, and the two terms will be used interchangeably throughout the thesis.

HMA and is now examined by the Assistance to Mine-Affected Communities (AMAC)² project (Millard and Harpviken 2000; 1).

1.2 The Mozambique LIS

In 1997, in parallel with the establishment of an international ban against landmines, several key mine action NGOs established an initiative to map the extent of the global landmine situation. It was realised that the information at hand provided a poor reflection of how countries were affected and, even more so, how communities were affected by landmine contamination. The initiative that was established aimed at mapping all landmine-affected countries through a Global Landmine Survey (GLS) organised through the Survey Action Centre (SAC) consortium. SAC has since conducted LIS projects in several countries, including Yemen, Chad and Thailand³ and are currently conducting nine further surveys.

In Mozambique the national organisation for coordination of HMA, the Instituto Nacional de Desminagem (IND), requested a survey of the landmine situation in the country⁴. The contract for the Mozambican survey was given to the Canadian International Demining Corps (CIDC)⁵ with funding from the Canadian International Development Agency (CIDA). CIDC, with the assistance of an independent consultant company – P.F. Wilkinson Inc. – linked its survey up to the GLS initiative, but the CIDA funding and their need for transparency and simple organisational structures limited the extent of the CIDC cooperation with SAC. All LIS data including the CIDC data from Mozambique are entered into a Geographical Information Systems (GIS) database called the Information Management System for Mine Action (IMSMA)⁶. Because of IMSMA, the standardisation of data and calculation of impact were similar for surveys from different countries, and they could therefore be compared. The UN was responsible for quality assurance. Hence the freedom of the CIDC team behind the Mozambique LIS was relatively limited and materialised mainly in the choice of

² Based at the International Peace Research Institute, Oslo (PRIO)

³ See SAC web page <http://www.sac-na.org/>

⁴ See web page: <http://www.ind.gov.mz/index.htm>

⁵ See web page: <http://www.cidc.ws/CIDC-CanadianInternationalDeminingCorps.htm>

⁶ Created and updated by the Geneva International Centre for Humanitarian Demining. See: <http://www.gichd.ch>

methodology, particularly in how socio-economic information was gathered in the group interviews.

The LIS surveys epitomise the quiet revolution within HMA and are the showpiece of the local adaptation of mine action, redefining the logic of landmine surveys. The unit of investigation has shifted from the minefield to the affected community. The survey investigates socio-economic aspects of how the landmines affect the community in which they are placed. The latter is achieved by using a composite indicator composed of three types of factors: presence of munitions, resources blockage and number of recent victims. Importantly, the LIS maps these factors through the use of participatory group interviews at the community level. The survey maps the impact on the community through open questions, such as “What problems are caused by landmines in this community?”, rather than gathering information from the minefield, thereby valorising local knowledge and their realities. The contrast is large to the earlier surveys, which gathered technical information found in the minefield, based on expert opinion and professionalism.

The survey fits into the shift toward local knowledge in development theory because it uses the community analysis to define the insights and perspectives of how the landmines affect everyday life. The survey aims to identify those villages that have suffered greatly from mines and highlights these communities for priority attention.

1.3 Aim of the thesis

The aim of this thesis is to study the changes taking place within HMA in the light of the general shift toward participatory approaches in the theory of development and post-war reconstruction. Two central aspects of the shift, both of which will be discussed with specific reference to the Mozambican LIS, constitute the focus of the analysis:

- To what extent does the participatory approach succeed in bringing to the foreground local knowledge and analysis as held by a variety of members of the local communities?
- To what extent is local knowledge and analysis reflected in the priorities for mine action?

The first research question focuses on how the principle of participation is translated into practice within the Mozambican LIS survey and on how the methodology influence the ability to map the social and economic consequences of landmines. The second research question looks at how local knowledge is analysed to form the basis for mine action policy and practice, by studying how the survey data are used to establish impact, to rank communities, and, ultimately, to establish priorities for action. In terms of research strategy, this thesis is based on one extensive community study, on fieldwork with a LIS survey team, as well as document review and interviews with key decision makers. The thesis will study local responses to living with landmines and assess the manner in which these local realities are reflected within the Mozambique LIS. Ultimately, it will assess how the shift enables communities and local knowledge to form mine action priorities.

The impact of landmines is measured in many ways; the focus on individual victims was important for the popular movement behind the ICBL, while economic calculations measuring income loss from area denial are a common impact assessment within several HMA organisations. This thesis focuses on the social implications of landmines and is driven by the need to see landmines as something more than a physical hindrance for development. Landmines are an embedded feature of many conflict-ridden societies, and how people respond to the continued threat of living with this weapon of terror must be seen as one of several factors influencing social development in the post-conflict situation. This often entails persistent social divides where lack of trust hinders effective network building while maintaining post-war trauma and material deprivation. The effects of landmines cannot be understood apart from this larger context. Similarly, the material manifestations of landmines, like killing and maiming, cannot be fully understood apart from the responses they cause in the community. In this sense the fear of landmines might be more real than the threat they represent; it is the fear that guides the action of the individual, and therefore it may be appropriate to focus on people's perceptions rather than on objects. This abstract argument has quite concrete consequences. Landmines cannot be reduced to the resources they block simply because resources and impact are not necessarily the same. It is this complexity that can highly complicate the process of mapping impact.

Therefore, analysis of the landmine problem must be linked to the concrete contexts and to a deeper understanding of local responses to landmines. This insight is not particular for landmines, but reflects something that is universal for all aid – the need to give value to local needs and realities and to be responsive towards these.

1.4 An overview of the general contents of the thesis

The following chapter will discuss methodology, both as a foundation for this study and as a basis for assessment of the Mozambique LIS. I will first go through the fieldwork, commenting on the various forms of data gathered and discussing how these generate adequate responses to the research questions. The main discussions of this chapter focuses on the community interview, the LIS study and the document review; furthermore, attention will be given to the data analysis in general.

Chapter three will examine the shift toward valorising local knowledge in development theory, including a discussion of the methods applied, the evolution of the shift, as well as emerging critiques of participation. The second half of the chapter will go through the parallel shift within HMA and describe how the quiet revolution within mine action can be seen as a part of the shift within development thinking. This chapter will also situate the LIS in relation to the shift.

Chapter four presents the Chifunde case study and serves as a background analysis for the discussions in the two following chapters. The chapter presents the case study in the context of a Capacity and Vulnerability Analysis (CVA), aiming to achieve an in-depth understanding of local responses to living with landmines. This analysis is central to frame the discussions of how the participatory aspects of the LIS enable local analysis of socio-economic impact of landmines and how this knowledge can be reflected in mine action policy and praxis.

Chapter five goes through the LIS survey interview conducted in Chifunde in light of the participatory ambitions of the survey, with reference to central points in the critique that has been brought against participatory approaches. The chapter analyses how participatory aspects influence the mapping of impact and ultimately to what extent the LIS is able to map socio-economic aspects of landmines in Chifunde.

Chapter six looks at how the LIS, at a general level, uses the situation analysis produced by the group interviews to establish an assessment of the landmine severity in the community. This discussion will look more closely at the survey indicators themselves. Using the analysis of the Chifunde data as a basis, the chapter will question the extent to which the survey analysis can reflect local knowledge in national planning and policy. This final analysis is important to be able to place the LIS within the shift and examine how it stands up to the challenges of the transferring local knowledge to form national policies.

Chapter 2

Methodology

The methodology chosen aim to capture the complex local reality of living with land mines and to assess the manner in which this reality is reflected within the LIS. Three principal sources of information have been utilised: observation in conjunction with the LIS survey; interviews with selected key informants in a chosen case study community (Chifunde village); and documentation review and key interviews with relevant decision makers. This chapter presents and discusses each of the three principal sources of information in relation to how they form the basis for this thesis; furthermore, the chapter goes through the data analysis and ethical considerations connected with the fieldwork.

2.1 Research strategy

Choice of method will determine what type of information is gained from the interviews (Alvesson and Sköldberg, 1994). The application of qualitative methods was natural as the interview format let people express their own understanding of the problem complex:

There is a move away from obtaining knowledge primarily through external observation (...) toward an understanding by means of conversations with the human beings to be understood. The subjects not only answer questions prepared by an expert, but themselves formulate in a dialogue their own conceptions of their lived world. The sensitivity of the interview and its closeness to the subject's lived world can lead to knowledge that can be used to enhance human conditions. (Kvale 1996: p.25)

The choice of in-depth semi-structured interviews as a means to access information was instrumental to get access to individual perceptions and understandings of how the community and the individuals were affected by landmines. Qualitative methods are well suited for establishing a dynamic understanding of the problem under scrutiny, portraying both the complexity and the context of the situation under study (Robson, 1993).

The fieldwork for this thesis was conducted from September to December 2000 in Tete province in Mozambique. My fieldwork in Mozambique has three main components. First, I accompanied the Mozambique Landmine Impact Survey. Secondly, I returned to one of the communities visited with the LIS survey team to do a community study, which gave me the opportunity to study a landmine-affected community as well as to see the Mozambique LIS

survey in relation to the community descriptions of landmine impact. I spent approximately three weeks in the field for each of these two components. This gave me adequate time to get acquainted with the otherwise unfamiliar settings of the field operations. Thirdly, I conducted documentation review and interviews with key actors within the HMA in Mozambique to get an insight into the process of identifying the impact of landmines.

The time I spent with the Mozambique LIS was vital to understand how the socio-economic indicators were integrated into the new landmine survey. Staying with the LIS survey teams enabled me to obtain firm knowledge of the procedures used to conduct the survey and how the communities were enabled to analyse the local landmine situation, informing the LIS about the socio-economic impact on the community. It also gave me insights into the everyday life of the survey team, travelling the country with a tent and a survey questionnaire, working long days to resolve problems such as not finding reported villages or not having access because of lack of roads. More generally, it helped me understand how academic values and intentions are reflected and maintained despite obstacles met in the everyday running of the survey.

The community study was conducted with the assistance of the Norwegian Peoples Aid (NPA)⁷. Due to the risk posed by landmines it was deemed important, also for the researcher, to have access to the communications, medical backup and evacuation possibilities that the NPA provided for demining operations. The benefits of conducting a community study were twofold. Studying a landmine-affected community gave me a firmer understanding of the consequences landmines have on the daily life of individuals both socially and economically and gave me an understanding of the individual responses to these problems. The community study also set the frame for understanding the Mozambique LIS by providing an in-depth study of the reality that the survey was trying to capture. Staying with the NPA gave me the possibility to see the size and scope of a mine clearance operation and develop an understanding of technical as well as social and organisational challenges encountered in the field. Combining these two parts of the fieldwork was instrumental to answer the first research question of the extent to which the participatory approach succeed in bringing to the

⁷ For more information on NPA, and it's involvement in HMA, see website: <http://www.folkehjelp.no/index.htm>

foreground local knowledge and analysis as held by a variety of members of the local community.

The field study, however, could only inform my understanding of the gathering of data. To ascertain how the data were used and analysed, attention had to be given to document reviews and interviews with relevant HMA organisations. Formal contact and correspondence were established with SAC and the CIDC to get access to documentation on the process of analysis. Further information was gained through institutional interviews during and after the fieldwork period. I conducted two visits to Maputo, for briefings and debriefings with the CIDC, as well as interviews with key officials at other relevant organisations. These trips were conducted before and after the fieldwork.

The choice of location for my follow-up community study was dependent on two factors. First, it had to be in a village that I had visited together with the LIS survey, which would be the only way to study and build a comparison with the findings gathered by the LIS survey. Secondly, the village would have to undergo humanitarian demining, since the risks involved in living in a landmine-affected community necessitated logistical support from a demining agency. The Mozambique LIS was conducting the survey in Tete at the time that I was planning fieldwork. This district was the base of the NPA's headquarters and one of the main areas of NPA demining operations. The NPA was also a natural point of contact on the basis of the long and firm cooperation the AMAC project had with the NPA in Mozambique. The coinciding of these two factors was important for the timing of my fieldwork.

At the time of the LIS survey the NPA was conducting four parallel demining operations in Tete province, and the survey had already mapped three of these four villages. Of the four areas Chifunde turned out to fit my needs for a community study very well. The village had been affected by the presence of landmines for almost ten years. This would expectedly have led to a considerable degree of adaptation to the landmine threat and would enable the study of community responses to living with landmines. Furthermore, the landmine problem was directly related to the village and had social and economic implications. It was a case that would potentially be informative both in terms of how a community is affected by the presence of landmines and in terms of how a community may adopt to living with landmines over time.

2.2 Studying the LIS survey

During the period I spent with the LIS survey team they investigated twenty suspected mine-affected areas in the two districts of Tete province: Chifunde and Macanga. Two of the twenty sites were inaccessible by car and could not be visited. The survey team was composed of two interview units that could work independently, when needed. I witnessed the mapping of fifteen areas during my stay with the CIDC. I was also able to observe two official interviews with District Administrators. The official interviews would function to ask permission to conduct the survey in the respective districts and to get the logistical support needed to go through with the mapping. The survey team would also crosscheck the information on the suspected mined areas with the information of the local administrations.

Even though many suspected mined areas were reported, many of the reports proved unsubstantiated, and not many landmine-affected areas were identified during the LIS study. The result was that I only attended two group interviews during the period I accompanied the LIS survey team. Clearly, this constitutes a deficiency in the data, but through my fieldwork with the survey team I gained considerable insight into how the survey was conducted. These data form the basis for methodological discussions of a more general nature. The problem of 90% overreporting of suspected mined areas was unusually high compared with the rest of Mozambique but does reflect the poor quality of the information that has been available to the LIS survey as well as to previous mine action planning. This basic information was gathered immediately after the civil war, while there is considerable overreporting of mined areas, there are also some areas that were not covered at all.

During the LIS study I was able to see the whole of the district of Chifunde as well as the neighbouring district of Macanga. This gave me a small glimpse of the challenges that face the districts in terms of the landmine situation and of economic development and post-conflict reconstruction and enabled me to analyse the landmine situation of Chifunde in light of the overall landmine situation and development challenges of the district.

During the LIS study, observations were central to my data collection. The LIS data were collected through interviews, and this was a situation in which I was unable to participate actively. My analysis of the LIS survey study is therefore based on observing the operation of the survey and the procedures surrounding data collection. Observation can give valuable

information about the LIS interviewing situation. Notes made while observing the interviews were based on how I interpret the situation – that is, observations of sitting arrangements, gesticulation and body language and use of voice, etc. These observations will always be subjective and would be interpreted differently by other people and in another situation. Passive observation is not unusual but as a method it made me dependent on complimentary sources of information. Additionally, my knowledge of Portuguese was limited, and the HMA operations and Mozambican culture and tradition were also new to me. I was aware of the challenges and constantly used the survey team to give feedback and comments on my observations. Hence, the data were exposed to the critical scrutiny of those under observation, significantly strengthening the quality of the data as well as my understanding of the survey process. Supplementary data were achieved through firm knowledge of the survey questionnaire, assisted by my limited knowledge of Portuguese. Immediately after the interview, all comments were firmly crosschecked with the survey team and their survey forms. In this way I made an effort to supplement my own data with survey findings and survey team thoughts and comments. Going through the interview also enabled me to "synchronize" the various sources of information and see observations in light of the findings. On the basis of these data I ensured that my data were not based on assumptions.

2.3 Conducting a community study in Chifunde

The field research strategy is based on the Capacity and Vulnerability Analysis (CVA) developed by Anderson and Woodrow (1989) and is inspired by the AMAC community study approach, which has structured the CVA to provide information about HMA (Harpviken and Millard, 1999). The CVA analysis assesses what vulnerabilities the community faces in relation to landmines and what capacities the community has to counteract and respond to issues and feelings of threat. When people live with landmines over long periods of time, they will adapt to the situation, and the effects of the weapon can therefore be found in all areas of social and economic life in the community. The study of landmines should therefore not be limited to the weapons or the objects that they block but rather take a broad perspective to encompass the embedded responses to the situation.

My affiliation with the AMAC community study approach has proved important for my research methodology. This community study approach structures the CVA to provide

information about mine action by using a Plan of Inquiry (Appendix A) focusing on three main areas: economic, human and social fields. During my three weeks in Chifunde I interviewed thirty-four individuals, three of them twice. My interviews were mainly semi-structured, but I also interviewed key informants and made observations, and document reviews to gain a broad insight into the challenges that face the Chifunde community.

The extensive community study approach is not immediately compatible with the format of the nationwide LIS survey (Millard and Harpviken, 2001:15-16). The AMAC project envisions the use of its methodology after a full country-wide general survey. Therefore the community study does not eliminate the need for a wide-scale survey but would see itself as complement to such a mapping of landmine presence. Rather than giving information on how the mine clearance operator should give priority to the different demining tasks, the community study is designed to be fed into the process of landmine clearance, providing information on how best to adapt the clearance operation to suit the needs of the community. I have used the approach to obtain a deeper understanding of the situation faced by the community of Chifunde.

2.3.1 Choice of informants

On returning to Chifunde for the follow-up community study I started by introducing myself to all the institutions from which I needed approval for my stay. That included NPA, which would host me for the next three weeks; the district administrator; and the regional president⁸. Because of my previous visit to Chifunde during the LIS study the introduction to the administration and village leaders was more an announcement of my return rather than a formal introduction, which had been made when I originally arrived. The formal introduction and approval for the study were prerequisite to conduct further interviews, as villagers would often prove unwilling to engage in interviews not approved by village leadership (Blom, 2002; Millard and Harpviken, 2001). The village leadership would in this sense function as gatekeepers controlling points of entry into the community and to the informants; which

⁸ The regional president is an elected regional representative put in place by the FRELIMO government, replacing the traditional leadership after it was banned just after independence from Portugal.

gatekeepers are used will also influence which informants will eventually be interviewed (Goode, 2000; Green and Hart, 1999).

Different gatekeepers will also give access to different informants. This is a natural effect as different gatekeepers have different social networks and motivations for naming potential informants (Johnson, 1990). When I came to Chifunde there was a need to diversify the gatekeepers, so as not to rely on a single point of entry. Using the informants who had participated in the LIS group interview proved a good way of diversifying the gatekeepers for the follow-up community study. By re-interviewing the survey participants it would be possible to assess how the survey group interview was composed, how they experienced the survey, and general questions about the landmine presence, using the LIS survey participants as gatekeepers to provide information on further areas of study in Chifunde. During these interviews the informant would present the landmine situation in the community. Whenever they came up with illustrations of landmine impact, it would be exemplified through individuals having special problems, providing me with names of new people connected with issues relating to the landmine problem. For example, during the interviews, the name of Socossi came up repeatedly as an example of landmine accidents, as he had lost livestock in the minefield. I therefore scheduled an interview with him to hear his side of the story. When the cleared land and the need for farmland was discussed, the name of Chagaca was brought up as the man who had taken farmland in the previous minefield. When qualitative study is being used, it is equally important to understand the variety of issues, choosing informants because of their uniqueness, as trying to get a representative sample of informants (Johnston, 1990; Lofland and Lofland 1995). This gave me the possibility to diversify my gatekeepers, not depending on one point of entry to the community.

In this way it was possible to target informants who had a story to tell. They were chosen because they were used as examples in the narratives of others. One interview would answer some questions and pose new ones, and the next interview would seek to illuminate the gaps left by the previous interview. Hence, each interview stands alone, giving an individual story of capacities and vulnerabilities in the responses to living with landmines; at the same time they all become part of a bigger picture of challenges faced by the community of Chifunde.

[It] is (...) a strength of the interview conversation to capture the multitude of subjects' views of a theme and to picture a manifold and controversial human world. (Kvale 1996: 7)

I found this way of conducting the interviews to fit the aim of the study, to get an understanding of the landmine situation in Chifunde and to get a deeper understanding of the various responses to living with landmines.

Whereas interviewing women did not in itself seem to be a problem in Chifunde, these interviews could only be conducted when the head of the household was not present. One interview started off by interviewing the wife in a household and went on to interview the husband when he came home; in this case the woman left the interview (Interview, Luis). It also meant that one interview was held with head of household, whereas the original intention was to interview the wife (Interview, Lissene). Usually I was able to target the interview to the person of interest and at the end of the fieldwork twelve of thirty-four respondents were women.

The interviews do not primarily aim at facilitating an understanding of the general problems faced in the community, but try to identify informants who have information of relevance for the study. The method does not try to reflect the average individual in Chifunde. The sample of 34 respondents is too small to enable generalisation, and the informants are not by any measure selected at random. The informants are chosen to show the contrast, diversity, challenges and persistence in the responses of the people who are living with landmines. By choosing to focus on individual stories it is possible to get an in-depth understanding of both patterns as well as nuances that describe how the community respond to living with landmines.

2.3.2 The interviews

The feeling of being out of place was strong throughout the fieldwork, and the thesis will make no claim to having conducted participatory observations, but in some ways this is true for all interview situations.

The research interview is not a conversation between equal partners, because the researcher defines and controls the situation. The topic of the interview is introduced by the researcher, who also critically follows up on the subjects' answers to his or her questions. (Kvale 1996: p.6)

As a researcher you are given a position of control by the informants; the ability to get access to information demands that the interviewer fill this role by guiding the dialogue and directing it towards the topic of interest. At the same time guiding the discussion along a limited number of topics will only confirm the pattern of thought of the researcher, bringing up the topics seen as important by the researcher, not necessarily those seen as important by the person interviewed. It was therefore important that the conversation was only loosely structured, allowing the respondents to elaborate on their stories and issues of concern (Kvale, 1996). There are several techniques for allowing the interview to become a good conversation. Being a good listener might be just as important for the interviewer as asking the right questions. Silence provides the respondent room for reflection and time to elaborate the discussion (Kvale, 1996). The interviews allowed the informant to reflect over issues that he or she found relevant, with the aim of grasping or understanding the perspectives and perceptions of the person interviewed.

Another way of achieving a good conversation is by appearing to be naïve or by taking the role of socially accepted incompetent (Kvale, 1996). If the researcher appears to have all the answers, there seems to be little point in engaging in a good conversation; this is also the case if the researcher appears to have no insight into the area in question. A middle ground where the researcher is seeking information and is engaged in the discussion is important to get an insight into the problems and the responses to everyday problems. I found it difficult to assess to what degree I should challenge the information given to me through the interviews, particularly because I wanted to get access to the perceptions of threat and the problems they faced. Clearly not being critical would, however, leave me open to manipulation by those who had reason to place themselves in a particular light or portray their reality in a certain manner. Instead of challenging their information, I gave them the opportunity to voice their perceptions. The diversity of informants would allow me to triangulate information and assess the information in relation to other descriptions (Arksey and Knight, 1999: 21-31). In this way I could turn their manipulation to my advantage, as the reasons why respondents feel compelled to display reality in a specific way, by strengthening and accentuating their perceptions of the problem they face, also shed light on the subject matter.

There is an apparent conflict between a dominant control over the interview and the facilitation of the good conversation. The ability to strike a balance between them will depend on the researcher's ability to build good relations and trust between himself as a researcher and the informant (Arksey and Knight, 1999; Kvale, 1996). Staying in Chifunde for a long time did give me the opportunity to build ties with the community and with the NPA camp. Living under the same conditions as the demining team was a factor that built trust and opened for good conversations (Kvale, 1996). I was included in social events, being invited to share newly brewed maize beer by the local banca (kiosk) or on someone's doorstep. Responding pointedly to such hospitality was important to build relations and to gain acceptance for my presence in the village. Conversation would be hampered by language problems, but conversation would take the form of well-intentioned smiles and gesticulations and the universal sign language.

I lived in the NPA camp, which was located on the outskirts of the village. The separation was further increased by the fact that only a limited number of NPA staff spoke the local language, Chechewa. My association with NPA may in part have limited my integration into the community. As a white, well-dressed, researcher I felt that I was placed in a position of control, where the goal of a conversation between two equal parties seemed difficult to achieve. But through persistent presence and my continued queries about the community and the problems they face I gradually gained acceptance, striking a reasonable balance between the two factors of control and facilitation, hence generating the good conversations.

2.4 Documentation review and interviews with key HMA actors

The second research question aims at examining to what extent local knowledge is reflected in the priorities for HMA. This question cannot be answered through the use of fieldwork alone but is dependent on further documentation review and communications with relevant organisations, including CIDC, SAC as well as the main actors within HMA in Mozambique.

The survey design was set up through the SAC consortium, and contact with them has been important to build an understanding of the concepts on which the survey is based. SAC sets common standards for all of the GLS surveys, and the SAC Protocol documents establish standards for data collection and data analysis in great detail. These documents have been important to understand the rationale behind the composite indicator approach, as well as how

the analysis is conducted. Furthermore, I attended the Third Landmine Impact Survey Training Symposium held in Oslo, Norway, on the 11-14th of January 2002, by SAC. The symposium was intended as an introduction to setting up a national LIS survey, drawing on experiences from completed surveys and elaborating on the concepts of impact. This symposium also made possible discussions with central actors within the design and implementation of the SAC's LIS surveys. Further information was gathered from research papers produced by the SAC, the SAC website, as well as the final report from the LIS in Yemen.

I spent two weeks with the Mozambique CIDC administration and with the analytical office for briefings and debriefings before and after the fieldwork. These meetings gave me a firm understanding of the scope of the survey as well as an insight into how the data were analysed and entered into the survey database. Further information on the survey was gained through access to the survey Quality Assurance Monitor (SAC, 2000), the Mozambique LIS Standard Operational Procedure and the Mozambique LIS final report as well as the CIDC website. The Mozambique survey incorporated some adaptations, deviating from the SAC format, which made it important to use sources from both the SAC and the CIDC. After the fieldwork I presented preliminary findings to CIDC and to P.F. Wilkinson Inc. Though the focus of the correspondence with CIDC was slightly different from that of this thesis, the discussions have been highly important for my analysis of the field data and have enabled me to revisit and refine the analysis and findings of my fieldwork. The correspondence with CIDC also gave me the opportunity to discuss my findings in light of the general survey methodology.

Documentation review is a content analysis of documents that are initially produced for other purposes, comparing different sources of information to shed light on the theme in question (Robson, 1993). The documentation used for this analysis consists mostly of official documentation of the survey and the survey process. Documents will always be only partial representations of a larger whole, which is part of the rationale for fieldwork playing such an important part in this thesis.

In addition to the documentation review, the fieldwork in Mozambique entailed communication with key actors within HMA in Mozambique. These organisations had not been a part of the design of the survey, but they would be the end users once the survey data

had been handed over upon completion. The most important institutional contact was with the CIDC office in Maputo and the NPA office in Tete. The CIDC office was very helpful in introducing me to the other HMA operators in Maputo and giving me points of contact for further organisational interviews. I had two interviews with the IND, who became the owners of the survey data upon completion: with the director prior to the fieldwork, to announce my presence and introduce my study, and with the deputy director for debriefing after the fieldwork. Both of these interviews were important to understand the how the national mine action authority envisioned using the LIS survey data when it was handed over to them. Furthermore, I had interviews with two of the three dominant HMA operators in Mozambique – NPA and UN ADP – as well as other HMA operators such as Handicap International and some smaller commercial demining companies⁹. These NGOs will be the end users of the data and the ones ultimately deciding how the Mozambique LIS is going to change how HMA is carried out in the country.

2.5 Data analysis

The data analysis and the structuring of the data affect how the data are focused and portrayed. To reflect the responses of the informants, it is important that the data analysis also is able to convey these intentions. Therefore how data are treated and what analytical concepts are chosen to structure the data must be adapted to the method of obtaining the data material.

The analysis of the Chifunde community study was structured according to the framework set up by the AMAC project and the use of CVA analysis. The use of this framework will be presented in detail in the next chapter, but, in short, the analysis aims to assess the capacities and vulnerabilities embedded in the community, with particular reference to the landmine problem. The data analysis was simplified by the fact that the focus for many of the interviews was given at the outset, since many of my informants were selected on the basis that they had a story to tell, because they were affected by landmines in a special way, and were used as examples of such in dialogue with other villagers. The analysis did not try to achieve a representative sample or try to compare the different perceptions by finding trends

⁹ The third regional HMA operator is the HALO Trust. For general background on demining in Mozambique see Eaton et al., 1997 and Millard and Harpviken, 2000.

in the data material. This part of the analysis aims to understand the variety of responses to living with landmines and how they affect everyday life.

The fieldwork conducted with the Mozambique LIS survey demanded a different analysis process. The data material consisted both of personal comments and data recorded for the survey. Given that there were few group interviews in landmine-affected villages during the three weeks of my stay with the LIS, I was left with relatively little information. This was particularly restraining when seeking to compare or to diversify my observations and impressions. The discussion of the survey interviews will therefore concentrate on the Chifunde case but reflect issues that were encountered during the day-to-day activities of the survey.

During the fieldwork, notes and interviews were recorded by hand. I did bring a Mini Disc recorder and a PDA to write my findings, but I was reluctant to use them for fear of removing attention from the interview. The district administration, health clinic and school did not have access to electricity and used typewriters and carbon copy paper. I was concerned that using electronic devices would increase distance, between me and the informant, more than necessary. During the LIS study, taking notes was not a problem because most of the data were my personal comments and observations. Although I did record the responses given to the LIS survey during their interviews, most of the information during the interviews was based on the behaviours and context of the interviews. After the LIS interviews I would sit down with the interviewer and go through the information recorded by the survey team. This routine was a good replacement for electronic recording. During the follow-up community study I used an interpreter, which has the advantage of giving considerable time to note down the response to the first question while posing the next one. In this way the dialogue would not stop because I was taking notes. The note-taking in the Chifunde community study meant that I lacked the time to note contextual information like moods and gesticulation, as I had been able to during the LIS study, but in this case I took care to record these as separate notes after the interviews. I have been reluctant to quote directly from the interviews, given the inexact form of transcription because of the use of interpreter, as opposed to having been able to transcribe the respondents' answers from their mother tongue. When referring to individual interviews in the thesis, I do so to describe the situation of the individual informant or to

reflect the sentiments of the respondent given through the interview. This should not be seen as the views of the informants but rather my interpretation of their views.

2.6 Ethical considerations

Kvale (1996) sketches three arenas for ethical reflection: the informed consent, the provision of anonymity and the considerations of consequences of the research on the life of the researched. To this discussion I will also add reflections over my position during the interviews.

All interviews were conducted under informed consent, but there are several factors that can influence the reason for consent. First of all, the respondent might accept to be interviewed out of respect for me as the powerful other or even out of courtesy for the visitor. Consent might also be given without the full understanding of the reason for the study, and what the information will be used for, despite my attempt to inform properly, both through community meetings and individual orientation. The respondent might expect returns from the interview, even though I stated otherwise. The purposeless gathering of information might not make sense to them; why would I travel across the world only to write a presentation of their problems? If they consider giving information to me on the basis of economic returns or the belief that I will be able to influence the future development of the community, this would be misuse of my position as a researcher; it would also sway the results, giving an adapted response, as they would give me information that would benefit their return.

The informed consent might also be given out of courtesy, while having consequences for the amount of time the respondent could use in the fields. The community study did coincide with the first rains and the planting season. This was a problem because of the conflict of interest this placed on the respondents, between trying to comply with my requests for an interview and at the same time spending their days in the field preparing for the planting season. Trying to comply with their needs meant that my working day would be very limited; most people were tending their fields during the morning hours before the weather became too warm. Around noon, when it became too warm to work, I was able to conduct interviews. They were tired after a day in the fields and were for the most part relaxing in the shade under trees or on their porches.

My lack of knowledge of the area made me insensitive to local customs and social codes of conduct. This was most apparent in the way people would come to me with gossip. My questions during the interviews would often touch upon how the area cleared would benefit the community. My interest in the discussions of land use was widely known, and villagers would stop me when passing by to spread gossip about how fellow villagers evict tenants and lease out land. Although this information was important to highlight the social tensions surrounding the issue, using my person to achieve other gains was ethically problematic and could limit the way people would trust me with information concerning the land situation. But the situation also had the advantage that the opinions were accentuated and pronounced rather than hidden from me.

The respondents in the fieldwork have been given anonymity in the following presentation, by replacing the names of the respondents with fictitious names. This decision was taken in order to remove information that can trace community conflicts back to individuals in Chifunde¹⁰. The potential consequences for the informants are also marginal because the audience for this thesis is the HMA arena and those who study the use of group interviews to determine policy and planning, whereas the Chifunde study is used only to exemplify the importance of mapping community diversity as well as reflecting this diversity in the planning process.

2.7 Concluding remarks

The methodology chosen reflect the two research questions: first, the field study was important to assess the extent to which participatory approaches succeed in bringing to the foreground local knowledge and analysis, and, secondly, the field study needed to be complemented by a documentation review to analyse how local knowledge and analysis is reflected in the priorities for mine action. Both of these research questions are portrayed against the background of the Chifunde community study, as an illustration of how the survey is able to convey local knowledge to provide information about mine action policy.

The strength of the methodology lies in the length of the fieldwork as well as the combination of a variety of sources of information. The fieldwork period allowed me to get acquainted

¹⁰ Interviews will be referred to in the text of the thesis by using the format (Interview, Janeiro) to refer to the interview with Maria Janeiro, the list of informants will be given in Appendix B

with the initially unfamiliar contexts of the HMA sector and of the Mozambican countryside. It was also central to build trust and to form an in-depth understanding of both the LIS survey and the Chifunde community. Furthermore, the analysis is strengthened by combining a variety of sources, including semi-structured interviews, observation, focus group interviews, and documentation review. Similarly, the selection of informants from various levels, including the Chifunde community and the LIS survey, as well as HMA actors in Mozambique and globally, has proved to be a major asset. Combining different types of data, as well as data from various levels, the thesis has a solid foundation for assessing the shift taking place within mine action in light of the general shift toward participatory approaches.

Chapter 3

General Trends in Development Aid and Post-War Reconstruction

This chapter will set the framework for the discussion of the Landmine Impact Survey by building an understanding of the debate within development policy and theory from which the survey emerged. It will establish a connection between the shift toward participatory approaches, with the incorporation of local knowledge into development initiatives, and the integration of participatory practices within the HMA sector. By placing the Landmine Impact Survey in the context of this shift it will be possible to view the Mozambique LIS initiative from a broader perspective, analysing the extent to which the survey is able to map community impact and how the survey applies local self-definition of the landmine problem to form strategies for mine action.

3.1 The shift toward participatory approaches

The emphasis on participation must be said to represent one of the most dominant trends within development assistance today. Participation is, and has been, a catch phrase within development theory, which evolved during the 1980s and caught on, to become the dominant trend during the 1990s. It is frequently seen as the new convention of development and the epicentre of a shift of paradigms within development thinking (Chambers, 1995; 1997; 1998).

The approaches themselves are so diverse and the word participatory so frequently used in a variety of situations that it is not possible or fruitful to talk of a unified definition of “participatory approaches”. When I still use the term participatory it is because it points toward a trend and a shift in the thinking about aid and development. The participatory approaches transfer responsibility for development planning and decision making from expert professionals to the stakeholders, enabling the latter to make the decisions that affect their own lives. The shift ultimately challenges the view that expert knowledge is best suited to produce strategies for local development. “Participation” valorises local insights and local perspectives on problems and priorities, based on the conviction that these are better suited to serve the needs of the poor than those of expert professionals.

3.1.1 Describing the shift

The shift towards local responsiveness is best illustrated by the wide number new concepts and the variety of areas that has seen a change in focus. Examples are found within rural development practices, where there have been a massive increase in the use of Participatory Rural Appraisal (PRA) approaches and in the focus on accumulation of social capital (Chambers, 1997; Evans, 1996; Fox, 1996). Examples are also found within discourses on democratisation processes, where there has been a shift in focus toward devolution of power to local government and on civil society as a control mechanism (Tendler, 1997). Finally examples are found in the organisation and distribution of development aid and the reliance on Non- Governmental Organisations (NGOs) (Tvedt, 1998). These concepts relate in part to separate discussions, yet they all illustrate the tendency to focus on the grass root level.

PRA, the most common method associated with the participatory approaches, can be described as a family of approaches, methods and behaviours that enable people to express and analyse the realities of their lives and conditions, to plan themselves what action to take, and to monitor and evaluate the results (IDS, 1996). PRA is designed to enable the affected party to take control over their own development. This strengthening of local capacities also aims at strengthening social capital, feeding into the process of building networks, trust, and a normative foundation for further self-development (Putnam, 1993)

The same movement is apparent in the democratisation discourse, with the focus on strengthening civil society. Until the end of the Cold War the emphasis was on the need for strong states, and outside demands for accountability were not given priority. When the global geopolitical climate changed, there was a wave of first elections, close to fifty in Africa alone during the first years of the 1990s (Chazan et al., 1999). Despite this new wave of democratisation the patrimonial structures of the state commonly prevailed, and many newly democratised countries never held second elections (Bratton and Posner, 1998). As a result, development policies are increasingly linking development assistance and loans to demands for democratic accountability and to the transfer of powers to locally elected governmental institutions. Donor communities use considerable resources on building up civil society to act as a counterforce to state oppression, since the grass roots, given the right channels, are seen

to have the ability to force through political responsiveness for popular demands (Tarrow, 1998; Tandler, 1997).

The organisational form of aid has also become decentralised. Whereas the donor countries previously both planned and executed development initiatives, through branches of their government, today the same donors have little or no operational capacity and are left as a purely planning and funding capacity. Although most of the funds are distributed through multilateral aid, or as direct subsidies of the state system, NGOs constitute the operational capacity in the development arena. From having a rather marginal status in the early 1980s, NGOs have flourished and now function as the primary channel of distribution of donor funds and as the executive arm of donor community (Tvedt, 1998). NGOs have achieved this position because they are perceived as being flexible and target-focused and therefore as more responsive to local demands in the distribution of aid (Tvedt, 1998).

Despite the diversity in the concepts that have entered the development discourse over the past decade, they all claim to break away from traditional top-down approaches, mobilising local resources to achieve responsiveness to contextual variations. The concepts all reflect the same shift, the need to link the development assistance to the local needs, to make aid both more relevant and more cost efficient.

3.1.2 Analysing the shift

The shift in development policy and theory is aided by the fact that two traditionally opposing positions have converged in praising the attention given to the grass-roots level. The convergence between the new left and the new right, or, more specifically, the revisionist neo-liberal and the post-Marxist stance, is caused by a joint frustration over the dysfunction of states and markets and their inability to promote sustained growth and empowerment (Mohan and Stokke, 2000).

The state is still seen as an important actor in the development arena, with the right to establish the conditions for how aid should be distributed within its borders. Nevertheless its role is drastically reduced compared with its position in early development theories, which saw the state as the foremost institution in planning and executing development. The need to bypass the state is founded on a view of the state as being elitist and guided by politics of the

belly (Bayard, 1993; Medard, 1994). Political decision making reflects elitist networks and patrimonial structures rather than popular demands (Cabal and Daloz, 1999); states are therefore seen as bloated, inefficient and unsuited as a channel for the distribution of aid.

The neo-liberal theory strongly criticised the dirigiste state and advocated market liberalisation as the primary means of development. Neo-liberal policy has gradually become the dominant trend within the development arena, reducing the legitimacy of state intervention and its protection of internal markets. Because of its one-sided focus on market deregulation the neo-liberal theory has been heavily criticised as a developmental strategy. Markets in developing economies are seen as infant and dysfunctional, needing other support structures to penetrate down and generate generalised growth. This critique has been counteracted by expanding neo-liberal policies – labelled structural adjustment with a human face – which supports the building of a civil society, and by a focus on social development as a means for poverty alleviation.

Parallel to this shift within neo-liberal theory, radical development theories have seen a similar movement in their call for local empowerment. Although both of these theoretical perspectives use the concepts of local participation and empowerment, their understanding of power diverges (Mohan and Stokke, 2000). Where the revised neo-liberal stance pictures the participation and development at the grass roots as a measure to counteract the lacking capacity of the state and the market, to penetrate down to reach those most vulnerable, the post-Marxist stance pictures empowerment of the grass roots as a way of enabling them to break with the marginalizing processes in which they participate (Friedman, 1992).

This view of empowerment is often referred back to Paulo Freire (1970) and his main work, “Pedagogy of the Oppressed”. His argument was that, through education, the illiterate could gain a critical consciousness with regard to his or her own oppression, empowering the person to identify and analyse the oppressing values and worldviews of the dominant group and how the blind acceptance of these values had led to the acceptance of the oppression (Freire in Rahnema, 1992). This realisation would enable the oppressed to break with the conditions of oppression and take steps to achieve liberation and, ultimately, self-development.

Although the concept of empowerment is based on Freire’s work, most participatory approaches see the oppressed as already having the analytical capacity but as lacking the

institutional backing to challenge the existing situation (Chambers, 1997). Participatory approaches are therefore a collaboration between those who have knowledge (the oppressed) and those who have capacity (the outside organisation facilitating the community empowerment). Both Freirian and participatory approaches would see themselves as facilitating the oppressed to voice their concerns and demands. The two stances diverge, as the participatory approaches seek to utilize already existing knowledge, whereas the Freirian approach would be to supply the oppressed with the analytical tools, Chambers's point is that the outsiders do not have the monopoly on the answers supplied to the community, rather the contrary; they have the knowledge of the context in which the outsiders must work (Chambers, 1997).

3.2 The participatory approaches

There are few defining features of participation, rather an aim for good practices. This section will describe the foundations and aims of participatory approaches, and outline the criticisms that have evolved against them.

3.2.1 Understanding participation

The approaches aim at giving the poor ownership of the development process by letting the community define its own needs, by assisting the community in achieving those needs, and by facilitating its self-evaluation of how the goals were reached. The ultimate aim is that the facilitating development organisation takes part in the community initiative, while not supplying blueprint solutions for diverse development needs. Most of all this require a change in the attitudes and behaviours of the development practitioners, they must no longer perceive themselves as the experts but as the facilitators, not as having the solutions but as responding to the problem and the solution analysis provided by the community. The process of setting priority has moved from valorisation of expert analysis to valorisation of local knowledge. Outsiders do not impose their reality; they encourage and enable local people to express their own (Chambers 1997; 103).

To illustrate how power is distributed from the development practitioners to the community, Chambers (1997: 117) uses the picture of handing over the stick, illustrating that the community is enabled to be the researchers, historians and analysts. Various methods are used; the use of focus group interviews has become a trademark of participatory approaches.

The group interview discussions enable the community to reach a consensus concerning their problems and priorities. The groups can be composed in any manner, either as random or as representative groups, consisting of local experts or lay men, but the main point is that the dynamics within the group enables efficient analysis and problem identification. Furthermore, the participatory approaches use visual and analytical aids such as mapping and modelling, time lines and trend change analysis, as well as community judgements, estimates and comparisons to describe the extent of problems, not imposing predefined standardised measures (Chambers, 1997). The use of different analytical aids and additional sources of information enables triangulation of results to check for internal discrepancies in the group interview (Johnson, 1990).

The process of giving local communities control over their own development initiatives is described to be empowering (Chambers, 1997). By handing over power, enabling self-analysis of the problems and building capacities through the interaction between development practitioners and community, the process will become sustainable. The community is given the tools to sustain initiatives beyond the limited time period of the outside intervention. At the same time participatory approaches are designed to penetrate down to the grass roots and reach those who need the assistance the most. “For many, PRA seeks to empower lowers – women, minorities, the poor, the weak and the vulnerable – and to make power reversals real” (Chambers, 1997;106). The powerless are given control over the decision making that affects their own life and are able to reach those goals through the assistance of outside development initiatives.

The last two points portray the participatory approaches as cost effective; this is important to understand the success of the shift. The participatory approaches are portrayed as more target-focused and sustainable because they channel efforts to where they are most needed but also as achieving more through cost reduction. They are target-focused because development initiatives no longer risk conducting operations that are not needed, instead focusing on the issues that allow the community to utilise and strengthen already existing resources and capacities (Beebe, 2001). By focusing on building capacities, the community will be able to sustain initiatives after the operation is concluded, thereby reducing aid dependence and increasing sustainability (Kumar and Corbridge, forthcoming). Another reason for the success

is the cost reduction achieved through the use of local analytical capacity and labour. By letting the community conduct their own development initiative, operators are able to save money on administration and labour cost.

In the early days of participation the approaches were seen as challenging the dominant power structures, although they are increasingly being viewed as technical management solutions (Guijt and Shah, 1998). The spread of the approaches has led to a proliferation of initiatives that primarily aim for the side effects of participation, those of cost reduction and sustainability.

Furthermore, the popularity of the approaches has led donor governments to demand that participatory aspects are included in operations. But the use of the approaches does not necessarily imply that attitudes and behaviours are changed to fit the method. The transfer of power might lead to community decisions that contradict the best judgement of the expert professional. Therefore development practitioners might continue to conduct a traditional top-down implementation of aid distribution, imposing their realities on the communities they meet. Scaling up the use of the approaches might also lead to the need for rapid training of the so-called community mobilisers and the need for rushing the focus group interviews (Blackburn and Holland, 1998). This would imply that the group interview is an insufficient basis for achieving a thorough and comprehensive discussion and is becoming a hinderance to effective identification and analysis of problem areas.

The above-mentioned sketch of participatory approaches follows Chambers (1995), who has outlined three categories describing degrees of participation. Participation can be an empowering process, enabling the poor to achieve self-development. Participation can be used as a co-opting practice and as a cost-reduction measure by mobilising local labour to cut costs. Thirdly, participation can be used as a cosmetic label to make whatever is proposed appear good, while the process continues to produce top-down decision making without the ability to benefit from the local knowledge and analysis. The view is strongly held among leading PRA practitioners that processes should only be described as 'PRA' if they are empowering, especially for those who are vulnerable (Chambers, 1995; 37).

3.2.2 Impact assessments using participatory approaches

The success of the participatory approaches has spread rapidly to most sectors of development. The spread of the approach enabled individual initiatives to benefit from local knowledge but left a gap between the development initiatives on the ground and the policies that were produced by expert opinion. In order to ensure that national development strategies reflects the needs of the powerless, it is necessary to integrate participation into the process of setting policy priorities.

Beginning in small-scale projects in the late 1980s in India and Kenya, the approach has since experienced a massive expansion in both the number and type of organisation which apply and/or promote it. We are now beginning to see how the cumulative impact of the spread of PRA has moved across and up: regional and national policy decisions, and even strategies of large scale international donor or regulatory agencies, not just micro, project level realities, are being (re)formulated at least partly as a result of scaling-up of the approach. (Blackburn and Holland 98; 1)

The needs of the poor should not be limited to influencing the individual development initiative but should also be reflected in overall development policies and in national strategies for poverty reduction. Scaling-up therefore refers not only to an expansion in the application of the approach but also to the process of aggregating information beyond the case-specific context, to form policy considerations as well (Blackburn and Holland, 98; Booth and Holland 98; Cromwell et al. 2001; Marsland et al. 2000; McGee, 2002; Norton et al., 2001; Whitehead and Lockwood, 99). The use of participation is therefore not only set as a standard and a requirement for development initiatives but is also integrated within the process of defining policy. Through this scaling-up, participation moves from an extreme focus on an empirical level to influence considerations on a systemic level.

Focus is now given to integrating participatory aspects and local knowledge into development policy by using participatory methods in national surveys yielding standardised data. These impact assessments are commonly referred to as Participatory Assessments (PAs) (IDS, 1996). The inclusion of the participatory method within national surveys can be traced back to the 1990 World Development Report and to the introduction of the New Poverty Agenda providing a decisive change in the World Bank approach toward participation in poverty assessments (Chambers, 1997; WB, 1990). The main application today is within the Participatory Poverty Assessments (PPA) that form the basis for the World Bank's Poverty

Reduction Strategy Papers, which are designed to plan debt alleviation for Highly Indebted Poor Countries (Whitehead and Lockwood, 1999).

Although the World Bank is clearly a major actor it is by no means alone in utilising PAs in national assessments. For participation as a whole there is a tendency to focus on more content-specific assessments, using focus groups to inform development practitioners about isolated issues of interest. Participation is increasingly used within content-specific assessments carried out to form strategies on a national or regional level.

The need to use local knowledge and analysis to form national policies has instigated a wide-ranging debate concerning how to best integrate qualitative and quantitative information and achieve the best of both worlds (Booth and Holland 1998; Cromwell, 2001; Kanbur, 2001; Marsland et al.2000). Chambers (2001) sketches three ways in which participation could be used to integrate qualitative and quantitative methods: first, in large-scale surveys, by using PRA-related methods and analysis in the survey process; secondly, through aggregating information gained from focus group interviews, where the group interview initially was established for other purposes; and, thirdly, through utilising techniques where individual or group estimates form the basis for analysis – for example, census maps. By integrating qualitative and quantitative methods, it is possible to allow local knowledge to form general priority setting and the establishment of policy.

3.2.3 Criticism against the participatory approaches

The criticisms against the participatory approaches are becoming quite extensive (Cooke and Kothari, 2001; Kumar and Corbridge, forthcoming; Guijt and Shah, 1998; Mohan and Stokke 2000, Nelson and Wright, 1995). The critique contests the concept of power used within the participatory approaches, ultimately challenging the ability of the approach to bring to the foreground local knowledge and analysis as held by a variety of actors within the local communities. These critiques challenge the ability of the approach to redistribute power, both within the community as well as between the development practitioners and the aid recipients. Both points attack the rationale behind participation: the ability to understand local realities. The first critique addresses the question of whose interests are represented through participatory approaches generally and through the use of group interviews specifically. This critique addresses the issue of local power structures and how group interviews can function

as a tool to consolidate or even exacerbate the differences in power which exist in the community. The second critique addresses how the approach is capable of gaining access to local realities and perspectives, questioning whether the approach is able to empower the community to define and analyse their own situation, or whether the group interview adapt its responses to the facilitating organisation. The following will review the two sides of the critique and summarise by looking at the dangers of simplifying the community responses.

The first critique of participatory approaches – what we may label the power-centred critique – challenges the assumption that the approaches are able to penetrate local power structures and reach those who need assistance the most. Despite the aim of reaching the most vulnerable, there is a real danger that participatory approaches reinforce the position of local elites through the focus group interviews rather than engaging vulnerable groups in the community (Kumar and Corbridge, forthcoming). The inability to reach vulnerable individuals is not surprising, as local elites have more to gain from participating than do the powerless. There is power in participation, through controlling and defining access to development resources. As such, the group interview becomes an arena where struggles for power and control are fought. By seeking community consensus through group interviews, local elites are able to strengthen their positions. By striving for community consensus, development projects cannot expect to change local systems of politics or stratification. The fear of losing a central position within the village, because of social mobility connected to the power of participation, gives local elites a greater incentive for participating. The marginalized, on the other hand, do not necessarily see the benefits of participating in the focus groups. They might expect the village elites to manage the process, finding themselves playing a secondary role, not expecting to gain benefits from the group interview and the initiatives resulting from it (Kumar and Corbridge, forthcoming). This can lead to participation fatigue and disengagement, making the most vulnerable reluctant to engage in participatory initiatives. Disengagement could therefore be seen as a political response by which the marginalized seek other solutions (see also Bratton 1994).

Using a Foucaultian understanding of power, Kothari (2001) and Mosse (2001) illustrate how participatory approaches can strengthen existing power structures. Foucault describes power as hidden and disguised but circulating within all social relations. Through the group

interviews, local elites are able to express and strengthen existing structures of power. Tacit forms for power determine who participates and who does not but also determine what realities are portrayed within the group interview. Thereby participation can further exclude and marginalize the group it is trying to reach (Kothari, 2001). The group interview is itself an arena where power battles are played out. This view of the participatory process highlights the importance of being critical in the selection and use of gatekeepers. Gatekeepers will ultimately decide who gets to participate and therefore whose reality is portrayed. Understanding who is used as a gatekeeper as well as making an effort to diversify the use of gatekeepers, can be important steps to make sure that the vulnerable are included in the participatory process.

The second critique directed toward the participatory approaches challenges the assumption that the approaches are able to gain access to local realities – what we may label the knowledge-centred critique – arguing instead that the group interview adapts responses to fit the focus and capabilities of the facilitating institution. Participatory approaches are designed to let the poor bring forward their own insights and perspectives, letting them define their problems and priorities. This self-definition involves a levelling out of differences in power between the development organisation and the locals. The aim is that the development operator no longer holds the power to decide which initiatives are best for the community. Despite the aim of levelling out power between development operators and the community, the fact remains that the outside organisation is still in control of the resources. To qualify for access to aid resources, the group interview will tend to produce the answers that the participants think the development organisation wants to hear, giving the answers that will be conducive for receiving benefits. This is what Chambers calls the self-sustaining myth (Chambers, 1995). Mosse (1994; 2001) found that the community had very realistic ideas concerning the type of assistance they could ask for, as well as the practical limitations of the facilitating organisation, knowing from the outset what to expect and what not to expect. On the basis of this understanding of adapted responses, the group interview simply becomes an adaptation to the problem definition given during the initial group discussion, when an image of the organisation and its capabilities was formed. Despite aiming for the redistribution of power, the development organisation still holds the key to resources and will remain the dominant party.

Furthermore, the group interview may not be an arena where the group defines their perceptions of reality but an arena where they learn to illustrate problems using the concepts and techniques relevant to the facilitating organisation. Although the analytical tools are locally relevant, they are clearly of much more relevance to the knowledge gatherer than to the participant (Kothari, 2001; 149). In this sense the participatory approaches fail to reflect local realities, because the analytical process of the group interview is made impossible without using the analytical framework and language set out by the development discourse (Kothari, 2001: 150). The realities of the community are forced into a framework defined by outsiders; thereby the group interviews are simply reproducing predefined images and realities (Kothari, 2001).

Much of the critique of the participatory approaches can be summed up as a lack of consideration of local complexities. The approaches sketch a simplified “us” and “them”. This simplification also neglects all differentiation within the community, and the village appears as a uniform entity, where all villagers have similar problems and also similar responses to these problems. This simplification hides conflicts of interests and contesting views, concealing how the group interview functions as an arena where issues of power and conflicts of interests are fought out. Furthermore, this simplification hides the dynamics between the group and the facilitating organisation, in particular how the group participants are compelled to adapt responses to the interviewing situation rather than display local realities. Because of this simplification, development initiatives do not necessarily respond to the needs of the community or reach those who need assistance the most. A more nuanced understanding of power would have enabled the practitioners to counteract (although hardly prevent) the two critiques that have been set forth against participation.

3.3 Shift within mine action theory and policy

The aforementioned shift towards participatory approaches within the development community at large has also affected mine action, a sector that has been relatively specialized and isolated. The shift within development thinking, towards the valorisation of local knowledge, is reflected in the LIS surveys with the integration of local knowledge and analysis to form mine action priorities.

3.3.1 The quiet revolution

Humanitarian mine action is a young field within humanitarian aid, only a little more than ten years old. Prior to 1990, little public attention was paid to the magnitude of the landmine problem or the scale of the landmine crisis. Landmines were generally considered a military issue left to explosives experts within military organisations. Humanitarian organisations building up a capacity in mine action have relied on the military for technical competence but have simultaneously adopted organisational practices that are very different from those normally associated with humanitarian aid (Horwood, 2000). Operations management often resemble military command structures, built around large demining platoons. The size and rigidity of the operations has been reflected in the decision-making process, and priority has often been set in accordance with to operational feasibility within the given safety standards. HMA was viewed as a pre-development activity, a task that needed to take place before reconstruction could commence. Demining was carried out to facilitate access for emergency aid or to open up areas for repatriation of refugees. Overall priorities were set through expert planning, with little effort to analyse the social context in which the demining projects were to have an effect.

The success of the ICBL has also increased attention given to the humanitarian consequences of landmines. The focus on human suffering, and on the effects these hidden weapons can inflict on whole societies, changed the focus of HMA from emergency relief to development planning. This led to a need for new indicators of success in mine action, with a stronger emphasis on seeing landmines as an integral part of the post-conflict situation and on evaluating how landmines affect the community. This represents a move away from defining success through the number of munitions cleared or the number of refugees whose repatriation had been facilitated, to a broad focus on reduction of accident potential, as well as on economic and social gains, including how HMA contributes to peace and reconciliation processes. The move from seeing mine action as an emergency activity to seeing it as a humanitarian activity implied also that the focus was shifted from the minefield to the community; the interest is now less on the mines themselves and more on the people living with mines.

It is this move to see HMA as a part of general post-conflict assistance that is termed the “quiet revolution” within mine action (Harpviken and Millard, 1999). The new focus on community development has clear implications for how success is measured. Identifying issues that hinder development is complex, however, because of the feeling of threat associated with the weapon. The fear instigated by landmines will have just as real effects on the actions of the individual as the presence of the object itself, and therefore removing landmines does not necessarily solve the problem. When dealing with landmines, it is therefore important to take into account the terror element of landmines. Landmine assistance must assess how long-term conflicts affect the social fabric of societies, through, for example, integrating the building of trust toward the clearance process into mine action (Millard et al., 2002).

All assistance given to war-torn societies must be based on an understanding of local complexities. Any assistance failing to adapt assistance to the capacities and vulnerabilities present in the community has the potential of doing more harm than good (Anderson, 1999; Anderson 1996). Even in the most dramatically war-torn areas there are capacities that can be supported and strengthened; by replacing these capacities with external resources the community will become aid-dependent and the capacities will wither (Anderson and Woodrow, 1989). For example, flooding a region with free emergency food relief might be detrimental to any functioning market, removing a permanent capacity and replacing it with a short-term substitute. On the other hand, if based on an understanding of the capacities and vulnerabilities of the community, emergency aid will have the ability to be more target-focused and is much more likely to contribute to the rebuilding of the society. In a society in conflict and in the post-conflict situation there will be both capacities for war and capacities for peace, for conflict and for reconciliation (Andersen, 1999). When an aid agency enters into a community, it is invariably in need of institutional backup from local capacities. This collaboration will strengthen some local capacities at the cost of others. It is therefore important for the development organisation to be aware and to conduct an analysis of which local institutions gain from its presence. As one example, the use of local warlords for logistical support can sustain the conflict; it is therefore important to identify peace-seeking, democratic organisations to supply the logistical support structures (Anderson, 1999).

Post-conflict assistance requires a broad-based approach to the reconstruction of societies. It is important not simply to reconstruct the pre-war condition, as it necessarily contained conditions that led to the war in the first place (Anderson and Woodrow, 1989). As such, it is not sufficient to target the symptoms of the conflict – for example, removing the landmines – but it is also important to ensure that the assistance is adapted to the context of the community. If HMA operators fail to analyse the situation, they may support negative capacities or fail to address local vulnerabilities, doing more harm than good. For example the clearing of a road might not be of use to the community because they do not have the capacity to rehabilitate it, or they lack transport for accessing markets or government services; as such the assistance does not target local vulnerabilities. The same road can be utilised for troop movement, strengthening the position of a local warlord.

Anderson's (1999) concept of "do no harm" is developed with explicit reference to the distribution of aid in a conflict situation. But the importance of understanding community complexities is equally valid within any other form of development assistance. As long as access to resources implies power, all aid initiatives imply a moral obligation to analyse the consequences of assistance. Because aid has the ability to strengthen or change local power constellations, it always has the ability to do more harm than good.

The past ten years has forced mine action operators to rethink the measures of success and view mine action as an integral part of conflict-related assistance. The most important shift within mine action theory and policy is that success is measured with reference to the ability to meet local needs and respond to the ways in which the individual community is affected by landmines.

3.3.2 The Mozambique LIS

The Mozambique government requested a national mapping of landmines in 1997. This was after humanitarian mine clearance had been conducted for five years. There had been previous attempts to establish national databases for landmines, but the data were poor, as they had

been gathered in an emergency phase of the country's rehabilitation¹¹. It included far from all minefields in the country, and many registered minefields had proved non-existent. Perhaps more importantly, the data only gave information on the whereabouts of the minefields. The landmine database available to the HMA organisations prior to the LIS survey did not provide any information as to the importance of the minefield or the impact it had either on the community where it was placed or for development strategies at any level. It is thought that the lack of good planning data has prevented the IND, the national HMA coordinating body, from fulfilling its role, and that the national LIS survey will prove to be an effective planning instrument and enable IND to become the coordinating organ it was meant to be.

The previous Level One Survey, as it was known, focused only on information about location and about the presence of the landmines. The pre-1998 UN definition of the Level One Survey and its purpose is as follows:

The objective of the Level One General Survey is to collect information on the general locations of suspected or mined areas. Information must be collected about the areas affected by mines or unexploded ordnance (UXO) and areas that are not affected. Areas must be categorized and the reliability and credibility of data recorded. A Level One General Survey is a prerequisite for the planning of a Level Two: Technical Survey (VVAf, 2001).

Owing to the lack of information on landmine impact, priority for HMA initiatives was set by the HMA operator on the basis of criteria like ease of access or the presence of easily visible objects of impact such as access to transport infrastructure. Most often, the HMA operator established an unranked list of priority tasks they expected to be completed within the coming year, this list was sent to the provincial governor, who ranked it by priority. The process was carried out by knowledgeable parties with insight into the provincial landmine problem but far removed from the reality of community impact, generally using criteria for assessing impact reflecting provincial priorities rather than criteria relevant for the community. It was therefore clear that the planning potential emerging from the previous data was limited.

¹¹ The HALO trust completed a national landmine survey in 1994 on commission from the UN Office for Coordination of Humanitarian Assistance, but the survey was not able to cover the whole country and only recorded the position of suspected areas.

As the international community became increasingly focused on landmines, during the 1990s, funding for the HMA sector grew. After the increase in funding came donor demand, for better targeting of resources. There was a need to assess HMA as a part of the development sector and to assess the impact of the landmines on the basis of what social and economic implications they had for the communities they affected. This led to a new definition of the landmine survey with the aim of mapping socio-economic impact of the landmines. The following definition was developed by the Survey Working Group (SWG), which is constituted by several NGOs as well as relevant UN agencies:

The ... [Landmine] Impact Survey identifies and maps all suspected mined areas. Socio-economic data, victim data, and behavioural data associated with these suspected areas are collected using a variety of sources. From this information, rough calculations are made on the general location of suspected mined areas and their relative socio-economic importance. This work does not require specialized Demining Teams because mined areas are not actually entered. (VVAf, 2001)

In this definition the focus is moved to the communities as the unit of analysis. The landmines themselves are not important, but rather the effect they have on the social context. The choice of the closest village to the minefield as the object of study shifts the focus of the information gained by the survey towards the daily activities of the people living in the proximity of the minefield. The survey will analyse what the social, economic, political and behavioural consequences of having a minefield in the vicinity of the village are, as stated in the final report from the Mozambique LIS:

On behalf of the national mine-action authority in Mozambique, the purpose of the Mozambique Landmine Impact Survey ("MLIS") was to collect, record and analyze information on the location of known or suspected mined areas throughout the country, and to provide an overview of their social and economic impacts as perceived by the residents of landmine-affected communities (CIDC, 2001).

Not only does the LIS try to gather information and calculate the relative socio-economic importance of the landmines, it does so by mapping behavioural data in the suspected areas. This focus on behaviour is further emphasised in the Mozambique LIS Final Report, in which focus is given to how impacts are perceived by residents, thereby using the analytical capacity of the residents to assess impact. This is evident, first, because the survey does not map minefields but areas suspected (by the community) to be contaminated with landmines, hence mapping the fear of landmines rather than the presence of the weapon itself, and, secondly, because the survey records impacts as perceived by local residents, using local knowledge and

analysis to enable the community to set the priorities for mine action. Importance is given to the local self-definition of impact as opposed to the assessments conducted by HMA professionals coming from the outside.

Table 1. Establish a framework to study the shift from an expert-defined to a community-defined impact identification. This framework is a foundation for situating the LIS within the general shift toward participatory approaches. Power and knowledge is evaluated to illustrate the shift from valorising professional realities to valorising community realities.

	Position within the shift	
	Professional	Community
Power	Expert	Participation
Knowledge	Objective information	Perceptions

Table 1: From professional to community definition of impact

The survey uses participatory methodology to map the perceptions of impact in the community; village residents assemble for a focus group interview, and through a participatory assessment approach the aspects of landmine impact are discussed and recorded by the survey team. The interview utilises additional analytical tools, including map-drawing, historical references, as well as trend and change analysis as methodological tools to enable the community to analyse their situation and to convey their analysis to the LIS survey team. The LIS survey also encourages additional triangulation of information by collecting data from other information sources, although it is a weakness that there are few incentives for surveyors to make use of extra information sources in a systematic manner (Benini, 1999). The use of group interviews and various participatory techniques enables the LIS to expand the analysis of impact despite the limited format of the national survey. Simultaneously, it is clear that lack of time does present limitations for the survey, and for the ability to fully map all complexities and nuances of community impact. In line with recent re-orientation within development theory and policy, the survey allows the community to analyse the landmine situation and to take part in setting the priority of mine action, enabling the community to define what problems they experience when living with landmines and to take part in decisions that affect their own lives. At the same time, the LIS is likely to encounter the same

challenges as participatory approaches more generally. The aim of this thesis is therefore to study how the survey fits within the shift in development theory and to assess how the strengths and weaknesses of participatory approaches are experienced within the specialised HMA sector.

3.4 Concluding remarks

This chapter has sketched a shift taking place within the theory of development and post-war reconstruction as well as within HMA. It is a shift towards valorising local knowledge and towards enabling communities to make decisions that affect their own lives. The shift aims at adapting assistance to the context and the needs of the local community. The chapter further describes the participatory assessment of the LIS survey and how the survey is a part of the larger shift toward valorising local knowledge and analysis. Through the survey, the community is enabled to analyse the landmine situation themselves, while the role of the survey team is limited to facilitating the group discussion and to bring to the foreground local knowledge and analysis. There are obvious problems in integrating such participatory data into a national survey, but this is not unusual, as more and more development practitioners aim to enter participatory data into large-scale questionnaire surveys, using participatory analysis tools and focus group responses within a statistical analysis, aiming to achieve the best of both worlds by combining qualitative and quantitative methodology. The chapter also outlines serious criticism against the participatory approach, questioning the ability to access local knowledge and analysis as held by a variety of members of the local communities. The following analysis will examine how the LIS survey fits within the shift described throughout this chapter, by assessing to what extent the survey is able to bring to the foreground local knowledge and analysis as well as to reflect this information in the priorities for mine action.

Chapter 4

The Chifunde Case Study

This chapter will introduce the case study community of Chifunde and how it is affected by the presence of landmines. It will go through the capacities and the vulnerabilities of the village, related to the landmine presence, and analyse the impact of these issues in terms of the community's ability to counteract them. This will form a basis for the study of the LIS survey, both in terms of how it is able to bring to the foreground local knowledge and analysis and in terms of how this knowledge is reflected in the priorities for mine action. As such, this analysis will form the basis for the discussion in the two following chapters.

The presentation of my findings in Chifunde is based on Anderson and Woodrow's Capacities and Vulnerability Analysis structured around the AMAC Community Study methodology (Anderson and Woodrow 1989; Harpviken and Millard, 1999). I have chosen to present the Chifunde case study in line with this framework because it gives a comprehensive representation of the problems facing the village and how these problems are related to the presence of the landmines. The framework structures the discussion around three key issues analysing how the capacities and vulnerabilities of the community affect its ability to respond to the threat posed by landmines. First, the economic field focuses on physical environment and access to resources needed for food and economic security. Next, the human field focuses on the individual's sense of threat and the engagement in risk activities despite knowing the danger involved, with a primary focus on personal security and health in a wide perspective including access to health and education facilities. Last, the social field examines how local leadership and social networks are able to deal with vulnerabilities connected to the landmine situation. In addition to these three issues I have included a section looking into the priorities of the district administration as well as some indications as to why Chifunde was targeted for HMA. This section is separated from the general discussion of capacities and vulnerabilities because the logic of the argument not only refers to community impact but also looks at prospects for district development. The chapter aims at placing the landmine impact in context by identifying vulnerable groups within society, by identifying where there are systematic differences in landmine affectedness, and by identifying the context of the

vulnerabilities, looking at factors that lead to or strengthen the impact as perceived by members of the community.

4.1 Community background

Chifunde is the district capital of the district with the same name. There are two further administrative levels, Administration Post and Local Administration, which also carry the name of Chifunde, but these administrative levels will not be used actively in the further presentation. The village of Chifunde consists of several bairros but I shall consistently be speaking of the administrative centre (the bairro of Chifunde) when referring to Chifunde village. The district borders on Zambia and Malawi, and the main road connecting Zambia and Tete city runs through the whole district from north to south, although not through the district capital. Most of the commercial traffic passes through from Zimbabwe to Malawi and further to Tanzania; the road through Chifunde district therefore is mostly used to reduce the traffic from the other roads. The result is that the administrative areas adjacent to the border with Zambia and Malawi are far bigger than the district capital, which is placed outside the main road at the end of a dead end road. The condition of the road to the village of Chifunde makes it inaccessible for several months a year, and only recently did the village get a permanent bridge, securing a more stable connection to the main road. This inaccessibility has made the public services in Chifunde poor and has made the establishment of a permanent market impossible. Chifunde village has approximately 446 villagers in 150 huts. Because of the population fluctuation it has been difficult to establish the population changes throughout the conflict, although the village has clearly grown in comparison with the pre-war period. It is the district centre for schools, hospital and police as well as the administrative centre. There were two electrical generators, one in the demining camp and one in the District Administrators home. The District Administration, hospital and school had no electricity.

Chifunde was the host of a military camp during the civil war; it therefore became the target of heavy fighting and sabotage. During the period from 1990 to 1992 the FRELIMO government army laid a defensive minefield along the one side of the village protecting it from attacks by the rebel RENAMO forces. Furthermore, the village is situated on a plateau with a 5- to 10-meter high cliff, caused by land subsidence, separating the village from the riverbanks, on the side not protected by landmines. These two factors created an enclosure of

the village which would have made it difficult for it to be attacked (see Appendix C). But as the peace settlement was negotiated in Rome in 1992, only a short time after the mines were laid, they never had a strategic effect. The military presence was probably as much to protect the administrative centre, but Chifunde also had some economic importance as the base for some cotton production and a market. Chifunde at this stage had tap water and electricity for all houses but also for some of the huts. During the war this infrastructure was destroyed, and the village had little ability to preserve the resources, resulting in villagers looting and destroying infrastructure for other needs. Now the water pipelines are used as football goals and support for the corrugated iron ceilings of buildings such as the teachers' quarters. The war also brought an end to the production of cash crops, and the market never reopened due to lack of road access.

Because of the military presence, Chifunde became a centre for refugees during the war; its proximity to the border made it a good transit village on the way to Zambia and Malawi, and the military presence guaranteed security for those who wanted to stay on in Mozambique. After the peace settlement, several villages were established as support apparatus for the repatriation of refugees, and one of these was Chifunde. The villages chosen were close to the borders and would function as halfway stops before the refugees returned to their place of origin. The use of such repatriation centres functioned as security for the returnees, as they could resettle in Mozambique and still keep open the possibility to re-migrate if the peace did not prevail (Millard and Harpviken, 2000. p.39). In addition to the transiting migrants, there were a lot of refugees from Chifunde to the neighbouring countries of Malawi and Zambia, who returned after the war. The refugee situation led to heavy overpopulation of Chifunde during and immediately after the war.

When the war ended and food production started picking up pace, naturally Chifunde could not support its increased population. Most of the refugees resettled further inland, returning to their place of origin or settling down in new areas of opportunity (Interview, Romao). Due to a lack of agricultural possibilities in Chifunde, remaining villagers who were dependent on farmland settled in existing or newly established villages surrounding Chifunde, where the agricultural land was more readily available. At the time of the fieldwork the situation was more stable, and any growth in the size of Chifunde was due to internal growth or

immigration owing to the presence of work opportunities within the administration and government service, like the school or the health clinic. The issue of land pressure is still not resolved, and there are signs of overpopulation, as many people choose to stay in Chifunde due to the opportunities and the proximity to government services (Interview, Romao).

4.2 Economic field

Chifunde is a community firmly based on subsistence agriculture. Access to land is the single most important factor for food security. Simultaneously, lack of, or at least the difficulty in obtaining, agricultural land is clearly the most common issue of concern raised during my interviews. Chifunde showed a high degree of land concentration, and a considerable social stratification was largely based on land access and ownership. The issue of land pressure was a result of the history of conflict in terms of the resulting migration to and village growth in Chifunde and also the overcultivation and fall in productivity of the agricultural land. Farmers were complaining that land available in the village was deteriorating and giving smaller yields. This meant that each household needed a bigger plot to sustain the same production. As a consequence, tenants were evicted from the plots they had access to.

The most fertile land, by the riverbanks, was concentrated on the hands of five large landowners, referred to as the forefathers because of their central importance in the community and their long ties to the village (Interview, Ziambene; Chagaca). Furthermore, only villagers with firm ties to the area had land ownership around the village of Chifunde. As a result of this, villagers moving to Chifunde, without inherited property rights, were struggling to get land, mainly relying on borrowing plots from the biggest landowners. Some even leased land, which is a very unusual situation in Mozambique (Interview, Nsigano). I identified two categories of people who found it particularly difficult to get access to land: immigrants who had settled in Chifunde after the war and the younger generation in need of land to support new family formations. Needless to say, the big landowners gave priority to friends and relatives.

The fieldwork coincided with the period of the first rains, when farmers were about to plant crops for the coming season. Just prior to my arrival several villagers had been evicted from the plots they were borrowing, which left the families in a difficult situation, as clearing a new field is tedious and hard work. During the period of my fieldwork there was clearly a lot of

anger on the part of people who were newly evicted. This situation might have caused informants to exaggerate the importance of agricultural land when talking to me, but it was apparent that the scarcity of fertile land did create social problems.

However, there was no unified agreement that the lack of agricultural land has any impact on the village, using a separate logic the impact caused by blockage of land can be seen to be negligible. Usually those with adequate land access were quite hostile towards those complaining of poor access to land. The main argument was that they were lazy people not having the initiative to clear new plots; all they had to do was to move out of Chifunde, where there would be plenty of land (Interview, Jalitar; Socossi). It was also suggested that the land cleared from the minefield was expected to give poor yields as the drainage was too high and the crops were too dependent on continued rain; the land was also said to be depleted from previous overcultivation. From a developmental point of view Chifunde would probably not have been offered demining solely on the basis of blocked agricultural land, as the economic gain of clearing the minefield is very low. The crop grown was rainfed subsistence maize, and the economic return on such crops would probably never outrun the cost of demining the land. It would be far cheaper to fence the mined area in or simply mark it while moving the entire village to another site. There would be dangers involved with these strategies; fencing the area would remove the accident potential of the mined area but would not remove the impact of the minefield because of the continuing lack of land. Moving the village could upset social networks because in this area of Mozambique much of the social networks is linked to the land and to land rights (Blom, 2002). Clearly, the magnitude of the conflict in Chifunde illustrates how land ownership is linked to family lineage and power.

Returning to the impact of land blockage I found in Chifunde, the area cleared after the mine action will probably resolve many of the conflicts over land which are experienced now, not only because the area that was de-mined is large but also because it will open up access to areas behind the minefield, situated between the minefield and a small river joining the river Luja south of Chifunde. Because of this the total area available for cultivation will be larger than the area cleared. If the area is used only for subsistence farming, much of the land disputes in the village will probably be resolved. The cleared area will give most villagers access to land. At the same time the central landowners in Chifunde claimed that the clearing

of agricultural land was important because it would enable them to evict their tenants and utilise more of the high quality land for themselves (Group interview, Silverio, Cateia and Roniano). Landmine clearance can in this way further strengthen polarisation of a scarce resource. This would lead to a further concentration of access to the fertile riverbanks, confining others to the less fertile plateau. There is therefore a danger that the freeing of land resources through mine clearance might reinforce the polarisation of land ownership and use of the high-value agricultural areas by the riverbanks.

The minefield blocks wood resources, but this is seldom highlighted as a main concern in the interviews, although it is seen as inconvenient to go some distance to gather wood for fuel and building materials for houses. There is no sale of wood, so this also is strictly for household consumption. Villagers were seen to enter the areas cleared by NPA prior to the quality assurance and the handing over of the area to the community. This premature utilisation of the area can be seen as a sign that the wood resources were important to the community, although the villagers collecting wood from the area claimed to have knowledge of the placement of the previous minefield and did not consider themselves at risk (Interview, Chagaca; Ganizane).

Livestock generally provide both food and economic security within the household. There was no cattle in Chifunde as the tsetse fly makes it impossible to keep large livestock. But there were several types of fowl, goats, pigs and other forms of small stock. Some of the bigger farmers said that they would slaughter livestock before the planting season. This would allow them to go to Tete to buy soap and salt, to serve as payment for labourers who worked in their fields. In this way they could sustain larger fields and generate more surplus (Interview, Jalitar). There were also accounts of some hunting or poaching, but this did not appear to be widespread. Many rely on food sources such as ground rats, locusts, roots and fruits as supplements to the diet. As the minefield in Chifunde was clearly marked, livestock was easily kept away from the area and there were no reports that landmines influence the keeping of livestock or hunting.

There was no market in Chifunde, and this left few possibilities for farmers to generate any income. The closest market would be in one of the two neighbouring districts of Chiuta or in Macanga; both of these would probably be a full-day travel – most of the distance by foot,

because of the lack of transport. It was therefore considered easier to travel directly to Tete city (the provincial capital); although it was a longer journey it would give access to a better market. Even though the road to Chifunde was reopened none of the cars that frequented the village would take any passengers or be available for the transportation of goods. The presence of 30-40 deminers obviously provided a substantial purchasing power, and villagers would occasionally visit the camp to sell chickens and eggs and sweet potatoes. But this was more the exception than the rule, and the lack of ability to provide sufficient goods for the demining platoon resulted in the deminers getting most of their supplies from other markets. Given adequate coordination, villagers in Chifunde and the surrounding area could have managed to supply the demining camp with sufficient food supplies; such coordination would also have aided in the building of local capacities.

During my fieldwork a tobacco company from Malawi came to Chifunde proposing to supply farmers with tobacco seeds, promising to re-buy the tobacco leaves. This was the first year they came, and only some farmers engaged in the opportunity, although not all were convinced the company would return to buy back the tobacco harvest. Most of the villagers were reluctant to try and were anticipating how the first year would turn out. In the neighbouring district of Macanga and in the northern part of Chifunde district the production of tobacco was quite widespread and probably provided influx of cash to the area. This could also be the case for Chifunde when the farmers see the potential for starting production of a cash crop, although this is dependent on the establishment of trust that the tobacco company would return to buy the resulting crop. The lack of trust toward commercial farming was probably due to poor experiences with a Zambian company that came to buy surplus maize three years ago. In the surrounding bairros, villagers started producing larger maize crops. The company returned for a few years, but in the last few years they had stopped coming. The income this had brought to the area had been very welcome. Some were still producing maize beyond the needs of the household, in the hope that the company would return. One farmer had enough maize to support his family for three years and with no possibility to transport produce to market; this constitutes a substantial economic loss (Interview, Jalitar). The older villagers remembered the influx of money from the previous production of cotton cash crop, and they expressed some optimism toward the presence of the tobacco company, although they claimed that the tobacco would destroy the soil and leave it useless, unlike cotton, which

was a much better plant. They would therefore have preferred to return to cotton production (Interview, Twoboi). The lack of agricultural areas in the village would force those interested in tobacco production to venture out of the village to find suitable areas for large-scale cash crop production. It was mentioned that the land cleared from the demining could be utilised for cash crop production, but generally villagers were anticipating the results of the first year of tobacco production before investing time and resources in clearing new fields and starting production of cash crops.

There are four small shops – locally called banca – but during my stay in Chifunde all but one were closed due to lack of goods. The three that were closed only sold soft drinks and crackers, and when they ran out, they would close until they got new shipments, which were generally unpredictable. The fourth banca was larger and sold several products including some luxury goods such as tinned food and batteries.

The government services provided in Chifunde are not very extensive, even by Mozambican standards. The district is clearly in need of better services, in education and basic health, but the village would also benefit from a more permanent road access. The establishment of routine transport facilities would enable the development of a monetary economy and possibly even a permanent or semi-permanent market. Much can be done in the way of development both for the village of Chifunde and for the district. The position as district capital automatically gives Chifunde an urban status, yet it remains a rural community where the household security is based on subsistence agriculture. There are only three people living in Chifunde who survive solely on a work-related income: the medical assistant, the district police chief and district administrator (Interview, Ziambene). There is a small group of villagers having sufficient income so they only have to keep a small garden to grow fresh maize, some cassava or maybe some groundnuts. But the vast majority have subsistence farming as their main livelihood. Even though there are work possibilities connected to the administration, there is little use of cash in everyday transactions. Most transactions are based on the trade of work for food, salt or soap. Cash will mostly prove important to build up economic security through investment in livestock or to pay the maize mill. Importantly, economic development is not hindered by the presence of landmines but by the lack of investment.

To sum up the impact in the economic field, people's livelihoods in Chifunde are based on access to agricultural land, which is also the resource that is blocked. The discussion has also touched upon vulnerabilities connected to other factors of basic security like access to wood and livestock resources and income security connected with market access and income generation. The minefield does affect several of the economic resources touched upon in the section, but there do not seem to be the same systematic differences in vulnerability as seen in relation to agriculture. The systematic differences in access to agricultural land illustrate the importance of achieving broad representation for the participatory information gathering. This section has shown that blockage of land does not necessarily constitute an impact for the community – in most parts of Mozambique access to land is not a problem – but the historic context and the resulting overpopulation, land degradation and the polarisation of land ownership in Chifunde have left some groups vulnerable and unable to access sufficient land.

4.3 Human field

The villagers reported a general feeling of security, with the threat of landmines being reduced over the last few years. The minefield in Chifunde was marked in the end of 1999, prior to the mine action operation. Marking the field was seen as an important factor for the feeling of security and has reduced the fear connected with movement in the area. The fear of landmines is generally limited to the minefield; villagers did not seem to worry when utilizing the area around Chifunde. There were tales of landmines in different areas around Chifunde, but they proved impossible to verify. This said, there were several reports that landmines were seen as a threat; even though villagers considered the landmine problem to be restricted to the minefield, they reported a fear connected with landmines as a weapon and a sense of threat connected with the minefield. Chifunde is a community where the landmine situation is very much normalised in the everyday life of the villagers.

The only landmine accident that occurred in the village was an incident killing three goats, the first year the mines were laid, which was in 1991 (Interview, Socossi, Nguende). The owner, Socossi, did not know that the area was mined and had unknowingly let the goats graze in the minefield. The accident came at a time when the village was overcrowded with refugees, and there was a desperate food shortage. The goats were the only livestock in the village, and the sight of the three rotting goats was very demoralising. But the accident was an isolated

incident, and landmines were not seen to have any further impact on the keeping of livestock. After the incident the livestock was kept at the other side of the village, and there were no further victims.

But there are examples of villagers engaging in risk behaviour out of need. Chagaca is a farmer who settled in Chifunde after the war; he moved here because he wanted to stay with his relatives after his guardian uncle died. During my fieldwork he cleared land inside the previous minefield. The area had been demined only a few months earlier and had not yet been quality-checked and handed over to the community. This premature utilisation caused some concern for the demining team, who wanted villagers to delay the use of the area until the demining was complete. Previously, Chagaca had borrowed land elsewhere in Chifunde, but he was evicted by the landowner just prior to this planting season. At first he was reluctant to clear land in the area due to the fear of landmines. But after trying to borrow land from the village landowners to no avail, he seemed to have no other choice but to clear land in the previous minefield, even though he considered this a last option. The illustration of Chagaca is a good example of how people settling in Chifunde have a hard time getting land, highlighting the problem caused by polarisation of land ownership.

Chagaca claims to have knowledge of the placing of the minefield, stating that the minefield started just behind where he is now cultivating. Therefore he did not consider himself to be clearing within the perimeters of the old minefield. He came to Chifunde in 1993, a period when there was still a military presence in Chifunde. The soldiers gave him information about the positioning of the minefield. It seems as though the village was given reliable information of where the landmines were originally planted. Several villagers knew where and how the landmines were positioned. The landmines was planted on each side of big trees stones or other objects, in two or three parallel lines running alongside the village. He has also been through a mine awareness course organised by the Red Cross. The Red Cross had trained three villagers in mine awareness, and most villagers I spoke with had some knowledge of landmines, either from the soldiers or from the mine awareness programmes. In addition to getting information from the army, Chagaca became confident that the area was free of mines after seeing people entering the cleared areas to collect firewood. This was probably why he decided to clear land there for agriculture. Several of my respondents stated that they would

not have confidence or trust in the work done by the deminers before they saw people using the area (Interview, Ganizane; Janiel). This rapid utilisation of the cleared land substantially increased the trust in the demining and was an important indication that the land cleared would be utilized once the clearing was completed. The fact that Chagaca was using the land should also be seen as an indication that the land cleared was of great importance for Chifunde.

The threat posed by the minefield was accentuated by heavy land subsidence on the north side of the village, forming a cliff down to the river plane. It was uncertain to what degree the subsidence was still active, but several buildings from the colonial period were about to be eroded away. The river was meandering some distance from the village, and from my interviews and personal observation it was clear that the erosion, was a problem primarily on the other side of the river. During the first weeks of rain, there were some signs of further subsidence; this was especially visible on the path leading down from the plateau to the farmland on the plain by the river. Large blocks of sand were breaking loose and sliding down the footpath, indicating that the land subsidence on the plateau had by no means stabilised. People living close to the subsidence were naturally very concerned that the subsidence might destroy their property and house. Neither the land subsidence nor the minefield would by itself have caused a significant feeling of threat, but the combination created an enclosure of the village and became a source of insecurity for the people living close to the land subsidence (Interview, Luis; Janiel). Similar to the impact of land pressure there seemed to be diverging reports of whether there was an impact of the land subsidence. Most other villagers were untouched by the impact of the subsidence, and they contested that there was any further subsidence, referring to the erosion being a problem for the community on the other side of the river. Largely the villagers saw the enclosure as inhibiting village growth and development but considered this as a restraint rather than a threat (Interview, Romao; Ziambene; District Administrator; Lissene).

The landmines seemed to have few direct health impacts on the village. There was a health post connected to the district administration. This was the only building that survived the war. The health post was the base for one medical assistant, who was responsible for running it. He also had three medical agents and one lab technician. Beyond primary first aid, there was no

capacity to treat landmine victims in case of an accident. In any accident demanding surgery or further assistance the victim had to be taken to the provincial hospital in Tete. There was an ambulance in the district, but it was shared by the whole district and only occasionally frequented the village. The most common diseases treated at the health post were malaria and various kinds of throat infections. Malnutrition was also a problem, as people did not have a balanced diet. Eggs and non-staple food crops functioned as additional income rather than to provide food diversity, and families were often forced to sell them in order to pay for the maize mill and the like. There did not seem to be many cases of Sexually Transmitted Diseases (STD) in the Chifunde area, as the village was far from the main road (Interview, João).

The landmines did not impair access to water sources. There are two wells in Chifunde, established after the war by an American NGO, and a third one that will be repaired by NPA as a part of their Community Services Approach (CSA) to HMA. One of the pumps did have slightly salty water, but this did not seem to concern the villagers or the NPA staff, dismissing it as adding extra flavour to the water. The NPA also has a project targeting the building of pit latrines and the associated health education within their CSA; this also included a theatre group coming from Chifunde to perform a play on STD and sex education. In this way NPA targeted health-related vulnerabilities of the community extending the scope of the assistance to the village.

The school in Chifunde provides classes up through seventh grade. It is the only school in the district which provides this level of education. This results in a problem of housing for the boarding pupils, since children come from all over the district to study. Students are often dependent on setting up their own accommodation during the stay in Chifunde. For classes above the seventh grade students had to go to Tete. Generally, the schools in Mozambique provide mine awareness education, but in Chifunde the school did not appear to be the primary channel for this kind of information, but rather the Red Cross, as mentioned earlier. There seemed to be various ideas as to whether schooling would increase chances of success for the children. Even a literate, comparatively well-situated farmer did not see the value of sending his children to school, probably because he did not see any opportunities linked to education, but would rather focus on a good work morale as a way to gain basic security

(Interview, Jalitar). Few would see the needs for formal education in their everyday life, although it was seen as an important resource to achieve prosperity and development.

The population increase in the northern administrative post of Mualadz led to plans of expanding both the school and the medical facilities there. This would ease the burden on Chifunde for these services, but at the time of my fieldwork Chifunde functioned as the district centre for the health and educational services.

To sum up the impact in the human field, the villagers generally report a feeling of security. This feeling of security comes as the community adapt to living with the threat posed by the landmines and is strengthened by villagers perceiving the mine treat as being limited to the minefield. There are examples of villagers who engage in high-risk behaviour out of need, like clearing land in the previous minefield, and also of villagers reporting a sense of insecurity caused by the landmine situation – for example, the inability to resettle a household away from the land subsidence. The threat posed by the landmines seems to affect vulnerable groups in the community, while those who have resources seem able to avoid risk behaviour. This is especially visible in relation to the access to agricultural land, but is equally true for all vulnerabilities.

4.4 Social field

Chifunde did not have the dual leadership structure found in many other parts of Mozambique (Alexander, 1997; Blom, 2002; West and Kloeck-Jenson 1999). After the decolonisation, FRELIMO took the rule of government, banned all use of traditional leadership systems and built their own administrative hierarchy. The traditional leadership was seen to conflict with FRELIMO's egalitarian Marxist view and had been used within the administrative structures of the colonial state. When RENAMO started their offensive against the FRELIMO government, they were in need of an administrative structure, and therefore re-established these traditional leadership systems and used them for administrative purposes in their areas of control. FRELIMO's inability to completely remove traditional leadership structures has therefore led to the presence of dual leadership in many parts of Mozambique (Blom, 2002).

Because Chifunde was an administrative centre and had a strong FRELIMO dominance, the traditional structures had lost all influence. When the mfumo (traditional leader) of Chifunde,

mfumo Chafuzika, died in 1969, four years after independence, none of his kin was reinstated to fill his place (Interview, Romao; Chafuzika). Most of his lineage either died or did not return from exile after the war. There was a nephew living in Chifunde at the time of my fieldwork, but there had been no initiative to reinstate him. Although some spoke of Chafuzika as an mfumo he held no position as a leader and was mostly seen as an herbalist. Importantly, he did not consider himself a leader and said that society had found other ways to fill the position of the mfumo. As such there is no apparent conflict between the traditional leadership systems and the state apparatus in Chifunde.

The traditional duties of the mfumo were carried out by the secretary of the bairro, or by the police or were settled privately. There was also a president who was locally elected and had responsibility for all the six bairros in the local administration, and whose functions overlapped those of the previous mfumo. The FRELIMO Party was still dominant in the village, and this was clearly a major reason why there had been little demand for the reinstatement of a new mfumo. The local administration was generally considered legitimate.

The secretary for the bairro is the primary point of contact for the villagers of Chifunde, but not all are comfortable with his position. The village secretary of Chifunde was very young; this is a clear disadvantage in this part of Mozambique, as respect for a leader is also a function of age¹² (West and Kloeck-Jenson, 1999). One respondent stated that the local leader was incompetent and mocked his ability to settle disputes. This was clearly the exception rather than the rule, but I did get the impression that, although situated in an administrative centre, not all villagers are comfortable with using the administrative structures for support or conflict resolution (Interview, Chima).

Settling disputes over land and land distribution was traditionally the responsibility of the mfumo. When I asked my interviewees where they would go to ask permission to open a new garden for cultivation, their answers would range from going to the district administration, the agricultural officer, the secretary of the bairro, the president, the person owning the land, or

¹² During my fieldwork I met several mfumos and local leaders who were very young. The politicised nature of the local leadership left them a target for both parties to the war. After the peace settlement many local leaders were either dead or did not return from exile. This has led to the instatement of young, inexperienced local leaders who had problems achieving the respect needed to perform in the mediating positions they were given.

the person owning the adjacent land to not asking anybody before clearing the land. This is a clear indication that in the absence of a traditional leader with clear responsibility for settling land disputes there is now a responsibility vacuum. In case of land shortage most villagers request land from the landowners in the village. In this way landowners have taken over the traditional responsibility of the mfumo and have become responsible for land distribution. There were still systems of land inheritance and distribution of land through kinship, but because of the present lack of land for redistribution, young people about to settle into new family formations complain of insufficient access to land through family channels (Interview, Janeiro; Nguende).

The anarchy with regard to land distribution clearly caused much anger, or at least irritation. Clearly, this lack of clear authority might cause confusion and be a potential issue of conflict when the mined area is cleared and ready for use. Importantly, only one of the villagers I spoke to had knowledge of land ownership within the minefield, and it was generally thought that the land cleared would benefit all who had need for land on a first-come basis. In that case, the land that was cleared would not benefit any single villager, but would benefit anyone in need of better access to land. It remains a problem, however, that no procedure for distributing land had been discussed or agreed upon prior to clearance.

There were six churches in or in the vicinity of Chifunde. The biggest one was the Roman Catholic Church, which could boast 86 baptised members, and the estimate for the number of members was as high as 100, all included. The activity increased when the priest came for a sermon every year or two. When I visited a Sunday mass, there were five churchgoers; when they saw me coming they postponed the sermon to gather more people. It should be added that this was in the middle of the planting season, which could have reduced participation.

There are only a few signs of collective mobilization. The different churches are, however, all built by collective activity. There seems to be a high political engagement in the village, and the FRELIMO party is very strong, with a permanent secretariat and active party members. Despite this there seems to be little sign of the network being used for the collective good.

To sum up the impact of the social factors, the fact that there is only one set of local leadership is a resource to the community, simplifying decision making and avoiding loyalty conflicts. It also simplifies the issue of what entry point the LIS survey should use when

coming to the community. There are indications that the elimination of the traditional leadership system has left a responsibility vacuum with regard to certain issues, especially the distribution of agricultural land. This might be part of the reason why the community experiences social conflicts and why land ownership has become polarised.

4.5 Administrative concerns and district impact

This section presents the logic behind why the Chifunde administration requested demining and why NPA and the provincial governments decided to engage in mine action in Chifunde. I have isolated this from the community analysis because there is a different kind of logic behind the descriptions of impact given through the community interviews. The section illustrates the diversity in the understanding of landmine impact.

There was no impact assessment prior to the decision to conduct mine action in Chifunde; the decision was based on a joint agreement between NPA and the provincial government that Chifunde would be a valid target for mine action. Two main arguments could have formed the basis for targeting Chifunde for mine action, not considering local impact. First, the district administration had received an evaluation from an outside consultant to relocate the village because land subsidence was threatening one side of the village, and second, there were prospects for promoting Chifunde as a node of economic development. Most likely, these two elements were seen as interconnected.

During the interviews with the district administrator he gave much attention to the issue of land subsidence. His fear was that the subsidence would eat its way into the village and force villagers to expand the housing area into the minefield. This observation resulted from an expert opinion given to the district administration ten years ago. The district administration therefore wanted to resettle one half of the village as well as expand government services in the newly cleared area. This might also have been the argument of NPA and the provincial government for choosing to set up a demining operation in Chifunde; it was at least given as one of the reasons for demining by the leader of the demining platoon that worked in Chifunde at the time of my study (Interview, Bande).

More probably, the province administration and NPA gave importance to the fact that Chifunde is a district capital when they chose to target the minefield. Economically, to invest

in and expand the infrastructure in the district capital could be seen as a tool to promote economic growth; if the district capital became a node of economic growth, this could radiate out to the rest of the district. In this sense investing in mine action in the district centre could lead to general growth in the district. Chifunde would therefore be a natural target for mine action, and the implications would hopefully have far greater effects than for the village itself.

The district administrator presented a vague but ambitious restructuring plan, indicating, the digging of wells, and the construction of schools and several other official facilities. Unfortunately, he lacked any probable plan for funding such a large-scale operation. With the study of the social structure in Chifunde one may also predict a further difficulty in implementing the village development plan, as few villagers consult with the district administration prior to building a new house or clearing new agricultural land. One example of this is the fact that the district administrator stated that nobody would be allowed to settle in the newly cleared area without the permission of the administration and in accordance with the planned resettlement scheme, while at the same time 200 meters from his office the first farmland was being established in the cleared area. Villagers are likely to establish their own patterns of settlement due to lack of state penetration of the decision making.

4.6 Concluding remarks

The minefield surrounding Chifunde affects the community in several ways, and it is a good example of how landmines affect all aspects of a community and all parts of daily life for individuals. Chifunde was affected by lack of access to resources for basic security, most importantly access to agricultural land but also to non-agricultural resources like wood and building materials. It was affected in terms of personal security through the need to venture into unsafe territories to collect firewood or clear agricultural fields but also in terms of lack of space to build houses in a safe distance from the land subsidence. The village in part also lacks the capacity to counteract the vulnerabilities caused by the minefield, as local leadership had not been able to resolve conflicts over land ownership. Finally, both the village as well as the district were affected by the lack of developmental opportunities for Chifunde, most importantly the need for village development, including economic growth and expending government services.

The chapter has illustrated how perceptions of impact vary with the capacities and vulnerabilities of the individual. Some villagers reported vulnerabilities relating to access to land or to effects of the land subsidence. Villagers not affected by these vulnerabilities generally contested that they had impact on the community; it was also clear that vulnerabilities were overcome by villagers who had access to resources. The landmines had few impacts that affected the whole community uniformly; exceptions would be the blockage of fuel wood or the obstacles to expansion through the village enclosure. Generally, the impacts of landmines affect groups within the community and depend on the situation of the individual. It is possible to live in Chifunde without being affected by landmines to any substantial degree, but it is also equally true that landmines affect the lives of many people in Chifunde. The fieldwork showed that the respondents report the impact they themselves experience. Villagers not affected by a vulnerability will not report the issue as having any impact, because for them it does not. This highlights the importance of the group interview because it is able to access a representative sample of group participants, and the importance of studying whether the group interviews tend to reproduce the views of its most influential members.

Chapter 5

The LIS Mozambique Use of Participation

This chapter analyses the extent to which the participatory method utilised by the LIS survey is able to bring to the foreground local knowledge and analysis, as held by a variety of members of the community. The chapter will look at the particular techniques used by the LIS survey as well as the general methodological framework emerging from the participatory approach, first by examining the choice of informants and secondly by examining the group dynamics during the survey interview. The two discussions are rooted in the presentation of participatory approaches in chapter 3 and relate directly to the two main criticisms raised there: the power-centred critique and the knowledge-centred critique. The analysis in this chapter is guided by the two key questions: first, who is participating in the group interviews? Secondly, to what extent is the survey able to yield reliable data, in the sense of reflecting the locally perceived impact of landmines?

5.1 Participation and representativity in the Mozambique LIS survey

The previous chapter presented some issues of systematic differences in how landmines affect the community of Chifunde, highlighting the importance of achieving a representative sample of informants in the group interview. This section will assess to what extent the LIS was able to achieve broad representation in the survey interviews, partly by discussing the survey as a whole but particularly by looking at the case of Chifunde.

Problems of access constitute the most obvious hinder for the survey team during the operational phase of the survey. Access has traditionally implied physical access to village areas, available evacuation routes and logistical needs and restrictions. I would argue that access is not just a matter of physical availability, which is important to carry out the survey, but, more important, it also entails social access and the access to information, which is vital for a successful survey. I want to focus on how access to informants through local leaders is a prerequisite for the survey, and how difficulty in diversifying the use of these gatekeepers can lead to lack of representativity. It is important to understand that societies that are exposed to armed conflict also experience a reduction in general trust; this can have implications for

willingness to participate and render information to outside organisations (Millard et al. 2002). Gatekeepers and social access determine the choice of informants. To get access to a village, the survey team must approach, and get acceptance from, one of the local leaders; in the case of Chifunde this was the village secretary (the secretary of the bairro). If the village does have a landmine problem, the survey team will introduce the LIS survey and ask the local leader to assemble a group for a survey interview. By assembling the interview the local leader will function as a gatekeeper, regulating the composition of the group interview (Goode, 2000). In most cases the village representative will respond to the request of the LIS survey teams and assemble a group of participants in accordance with the stated requirements. The implicit problem is that the composition of the group might also reflect the network and the position of the village gatekeeper.

5.1.1 Composition of the Chifunde group interview

In Chifunde I found survey participants to represent a small segment of the village, which the village secretary thought would have information about the issue in focus, namely landmines. The village secretary assembled the group in a way he thought would satisfy the survey requirements for local expertise about landmines and local history (Interview, Ziambene). Interviews during the follow-up community study showed that, of the fifteen participants, all had long familial roots in the area and all were landowners. Moreover, all were active FRELIMO party members, but only a few of them were there because of this affiliation (Interview, Ganizane). One woman was the leader of the OMM “Organisation for Mozambican Women” (Interview, Nsigano). One was there as a mobilisadores de minas (a counselling position for mine awareness), and two were secretaries for different bairros. One was an information worker for the socially disadvantaged for the Mozambican Red Cross¹³. The three biggest landowners in the village were present, and two high-ranking FRELIMO party members (Interview, Chagaca; Janeiro; Ganizane; Nsigano). After the interview the interviewer commented that he thought the group was assembled on the basis of their knowledge of landmines, and he proved to be right. In an interview Ziambene, the one who called the interview, said that he had made an effort to gather the elders who had fought in both the colonial wars, against the Portuguese and the civil war against RENAMO. He also

¹³ Recorded as having these affiliations in the survey interview.

said that they were invited because of their knowledge of landmines. But, in addition to having expert knowledge about landmines and having good knowledge of the history of Chifunde, their long familial roots in the area meant that all participants had easy access to resources and were all central actors in the community. On checking through the list of participants I found no representatives from vulnerable groups like landless farmers or immigrants, or other groups that fall outside the traditional kin-based support structures.

Another observation concerned who took active part in the interview. Most markedly, all three of the young women taking part left halfway through the LIS group interview, leaving the men and the older women to complete the group interview. This is understandable, as the younger women have more responsibilities at home caring for children, cooking and also tending the fields. They often have less time to spare and might get the feeling that it is not their place to speak in this type of gathering¹⁴.

5.1.2 Representation in the survey

During the period I accompanied the Mozambique LIS survey there were several examples in which power relations seemed to be a factor determining participation. This was apparent in one village visited by the survey team, where the village headman did not let the survey team make the confirmation rounds without his presence¹⁵. In addition, the schoolteacher dismissed his class to serve as our interpreter. This placed us in the company of the two most influential people in the village to help us confirm the negative site. The village leader led us past the first houses and directly to the biggest house in the area; the house had glass windows and a nicely decorated door, was newly chalked, and altogether had a standard I have not seen elsewhere in rural Mozambique¹⁶. From the base of that house the rest of the participants were handpicked and gathered to confirm the landmine situation in the area. There were no women among the group, and there was no doubt that the fact that the informants had been handpicked gave preference to relatively wealthy middle-aged male farmers.

¹⁴ Observations October 13th, 2000

¹⁵ Observations October 24th, 2000; For every negative site found by the survey team, five separate sources have to confirm the finding that the village is mine-free. This is not an example of a village with landmine presence but illustrates power relations connected with the use of gatekeepers.

¹⁶ Observations October 24th, 2000

There were also indications that women were less frequently used as informants than men in the survey. Usually women conduct many of the tasks associated with high-risk behaviour, like farming and getting water, although most men are injured due to the activity of clearing land. Because different genders have different responsibilities, they will differ in their perceptions of the landmine threat, making both genders equally important as informants. Another aspect of why women should be valued as informants is the matrilinearity in the region. Women usually stay in one place all their life, while men move to the village of the new wife. In this way the family name and the land ownership pass through the eldest daughter but are “controlled” by the eldest son (Blom, 2002). In this system the woman carries the continuity and the familiarity to the area both through her familial relation to it and her everyday use of the area¹⁷. This suggests that women represent a most valuable source of information. At the same time they might be less frequently used for the gathering and the confirmation of data. In the area of Mozambique I visited, men hold a central position within the household. When approaching a family group one automatically addresses the head of the household; in Tete this is usually the husband or the brother of the eldest wife. If none of these are present, the survey team will ask the women present. In one case we came to a cluster of houses where two family groups had gathered for the evening¹⁸. Naturally, the two heads of households were asked to confirm the information we had gathered about the landmine situation. After they had been asked, their wives could not be used to confirm the data, due to familial relations. By the kitchen there was a woman alone with some children; I do not know whether she was with either family group; she was standing some distance away. As she was not standing with any men, she could be asked. If she had been asked about her familial relations she might not have been eligible as an informant; had there been men present, she could not answer. In this way women have a much higher threshold for being used as informants in the survey.

¹⁷ Due to massive population displacement, particularly in Tete, many of these traditions are now disintegrating. When resettling after the war people have moved to new areas; the consequence of this displacement can cause inherited knowledge of an area to be lost.

¹⁸ Observations October 25th, 2000

5.1.3 The power of participation

These observations are entirely expected based on the power of participation, as described in the power-centred critique (Kothari, 2001). The group interview in Chifunde did represent those with vested interests, excluding those who were marginalized. This was expected because those with resources have higher incentives for participating, strengthening and conveying their view of reality both to the facilitating organisation and to the group itself. Vulnerable groups were excluded because the gatekeeper considered local expert opinion and landmine knowledge to be more relevant to the survey than the perceptions held by a variety of actors within the community, thereby giving preference to local elites rather than to the marginalized. It is, however, difficult to ascertain whether vulnerable groups were reluctant to participate, on the basis that they expected village elites to manage the process, or whether they failed to see any benefits resulting from their participation. But the observation that the young women left during the interview might indicate that this group found they had a secondary role in the interview.

If attention is not given to the composition of the group interview and the role of the gatekeeper, the group interview might become an arena that strengthens the existing power constellations. The use of village leaders as gatekeepers can disguise power polarisation and social inequalities, portraying village needs as uniform to the outside organisation. Attention must therefore be given to how the gatekeepers are chosen and whether there is a possibility of combining and diversifying points of entry so as to assemble group interviews to make them more representative.

Within local communities in Mozambique it is possible to find parallel local leadership structures, each having a separate base of loyalty. The village leadership will give legitimacy to the interview and ensure that the participants are comfortable with their role in it. Without this approval of the village leader most villagers would be reluctant to attend the interview. Villagers see representation as a task for the village leader. Engaging in interviews with outside NGOs without his consent will therefore be considered “jumping rank” and taking the place that is meant for the village leader. It is therefore customary to direct all inquiries to the village head. The need to work through village representatives in Mozambique poses

considerable methodological problems¹⁹. Use of traditional versus party and state administrative structure is very much politicised, and the structures in place today are the product of a prolonged conflict in which the different parties used different administrative channels to gain cooperation from and control over the population. Because the issue of village leadership is so politicised, it is possible to find fractions of the village supporting one village leader and disregarding another (Millard and Harpviken, 2001). How village leadership is used would depend on the conflict history in the locality and the degree to which the leadership systems have been an issue of dispute. Millard and Harpviken found that;

In Mpucuta, the number of people who attended the opening meeting was considerably small. It was later explained to us by the Secretary that when he called a meeting people tend not to come because his request was invalid without the endorsement of the Regulo²⁰. In Mpucuta this is believed to be related to the fact that the majority of the population support the RENAMO party and hence have more affinity to the Regulo system, than to the government leadership structure. (Millard and Harpviken, 2001: 59)

This shows the importance of considering the use of gatekeepers, and that the choice may very well influence the composition of the group interview. Using village representatives haphazardly as gatekeepers might therefore exclude segments of the population (Millard and Harpviken, 2001). There are many local adaptations in the local leaderships; even though the positions might carry the same name, they might have different functions varying from place to place. This is much due to disruptions in the lineage of traditional leaders and frequent changes in the local leaderships as a result of the war (Blom, 2002). There will often be two or more parallel leadership structures, and how they share responsibilities may be a product of the historical development, the conflict situation in the area or personal qualities of the individual leaders (Millard and Harpviken, 2001).

This obviously complicates the process of quickly being able to distinguish between local leaders and utilise those “most appropriate”. This choice of gatekeepers can have an unpredictable effect on the group composition (Green and Hart, 1999 p.31). Indeed, there might not be a most appropriate choice; this will depend on the position of the gatekeeper and

¹⁹ See section 4.4 Social factors

²⁰ Traditional leader referred to as mfumo in the Chifunde community study

the channels he uses to engage and mobilise participants. The village probably has to be accessed through several gatekeepers simultaneously to ensure better representativity.

5.1.4 Representativity or local expert opinion

The issue of who is included in the interview is important only if one can expect different results from different informants. Local experts can provide valuable information if they are chosen because of their good knowledge of a special subject area. Within development thinking there is a common assumption that the community does not have expertise on individual subject areas (Chambers, 1997), but the group interview in Chifunde managed to produce a substantial number of participants with special knowledge about landmines. The participants in the interview had firm knowledge of the issue of landmines, local history, mine awareness, and other relevant matters. If you need to know about mine awareness or the history of the area, this would be the group most suitable for the interview.

On the other hand, the focus group's knowledge of landmines does not imply that it had the information needed to show all the ways the landmines affect the community. It is important to understand that the group participants are not there to show their knowledge of landmines but must reflect the variety of perceptions concerning problems caused by landmines; this needs broad representation, not expert knowledge. In Chifunde I found that the group interviewed for the LIS survey did have a different view of the landmine problem than other people I spoke with²¹. For example, the group interview was composed of people with property rights to the farmland and very strong ties to the area; in contrast, the resettled migrants from Zambia and Malawi were having trouble getting land. The result was that the landmine impacts presented by the landless farmers were very different from the impact described by the LIS group interview. This was again different from the impact presented by the local administration and the agricultural officer.

Through my correspondence with the CIDC I entered into a discussion of whether the problems in the group composition would lead to variations in impact identification. The question was raised whether personal experience was the only way to acquire information about landmines and landmine contamination, or whether this information could be obtained

²¹ I will return to the description what impacts were recorded for Chifunde in Chapter 6.

though conversation and discussion, the point being that factual information of this nature will spread to all parties²². Clearly, this would indicate that the most knowledgeable informants would render the best-quality information, and that the quality of the data will only depend on whether there are imperfections in the flow of information. Restrictions on the movement patterns of women might function as a disadvantage for them as informants, whereas shopkeepers might be in a privileged position in terms of information gathering, as people might choose to gather by the local shop for a late afternoon tea and give tales of the encounter of a strange object. Therefore the survey team would do wisely in collecting informants who have a firm knowledge of the surrounding area, of history and of other relevant matters, as they would be better suited to fill in the blanks in the survey questionnaire.

This scenario fits well with the interview situation and the information gathering I witnessed in Chifunde. The participants had firm knowledge of the issue of landmines, local history, mine awareness, and other relevant matters and they had long ties to the village and area. As we shall see, however, the LIS interview recorded incorrect information and had problems picking up variations in the socio-economic impacts of the village. Therefore, my finding of impact differentiation within Chifunde is a good illustration of the importance of achieving representativity in the group interviews. The participants in the group interview did have information and insights of interest to the interview but they were also unaffected by some types of impact. The insights held by the participants only represented one part of the picture needed to gain knowledge of socio-economic impact. The survey was looking not only for the historical context of the landmines but also for the perceptions of how they affected the community.

Not being able to get a representative group is significant to the survey; because villagers perceive the threat of landmines differently, they will give diverging presentations of how landmines affect their lives. The representation of all parties and the mapping of all impacts will undoubtedly increase the quality of the survey. Simultaneously, it is important to recognise that landmines tend to affect those lacking resources (McGrath, 2000). The possible

²² This is an important discussion as the GLS LIS surveys, unlike the Mozambique LIS, rely on local expert opinion as the basis for their group interviews.

exclusion of these groups might cause the survey to lack certain important aspects of the social and economic impact of landmines in Mozambique. Because the impacts of landmines differ for different groups in society, the locality must not be simplified but must be treated as a complex arena where disputes over reality are fought out. If conscious high-risk behaviour continues because of need, it also follows that resourceful people will have a better chance to avoid high-risk situations (McGrath, 2000). This was also illustrated through the Chifunde case study and highlights the need to achieve representation also from vulnerable groups. Because some were not heard in the interview, the LIS team lost valuable insights into the landmine problem in the village, and the representation of the impact of landmines in Chifunde became skewed.

5.2 Group dynamics and access to local realities

The second question posed by this chapter aims to look at the extent to which the survey generates reliable data through its use of participatory group interviews. The group dynamics of the interviews is both a reflection of the methodology chosen by the LIS survey and a reflection of how the participants experience the survey setting. More specifically, this section focuses on the extent to which the LIS survey is able to build trust in the survey process and effectively transfer power to the participants in order to facilitate the group impact analysis, or whether the participants in the group interviews adapt their responses in accordance with their perception of the external organisation, as this is reflected in the focus of the interview.

5.2.1 Trust and access to information

The concept of trust can be valuable to describe the interaction between the survey team and the respondents. The lack of trust is important methodologically because it has effects on the collection of the data and on the validity of the data. The level of trust in a community might be influenced by the previous conflict; specifically, the level of generalised trust might be reduced, affecting how the community interacts with outside organisations in post-conflict situations (Millard et al., 2002). This lack of trust toward outside institutions and organisations might deter villagers from participating in the group interview or can result in a reluctant engagement.

Many of my observations relate to the fact that the LIS survey team has difficulty building trust during the brief encounters they have with the communities. The fact that the survey

team introduces itself as working on a database for the Mozambican government can still cause reluctance to participate many places in Mozambique. During one LIS interview a respondent was willing to give information for the survey but was reluctant to let his name be recorded²³. This demonstrates that there is still a lot of mistrust toward outside initiatives. The final report of the Mozambique LIS found that there were several villages who refused to take part in the survey (CIDC, 2001). This is not a general problem, and only seldom is the survey team denied permission to carry out their job. But the survey only records the incidents where informants or villages refuse to participate, while reluctance or hesitation to participate is not recorded. All lack of trust affect the group dynamics and can lead to participants adapting their response in accordance with their perception of the outside organisation. The survey needs to build relations with the community and an understanding of why this information is important and how it can help the village, and the more trust, the better chance of obtaining good information.

It is important to note that the survey team, even though Mozambican, is distant from the setting of the rural countryside. The survey team will ultimately be perceived as highly educated and formally dressed youths arriving in the village from outside. They also come driving in a big white car, and they are not able to communicate in the local language. As I carry the same characteristics, their alienation is in many ways similar to mine. I do believe that being regarded as an “outsider” is not only a product of skin colour. Nor is trust a set quantity; it increases as the LIS is able to build an understanding of the survey goals. It takes time to build trust, and, it is difficult to achieve trust in the short time span of a survey interview.

5.2.2 Participatory aspects of the LIS

Chambers (1995; 1997) uses the image of handing over the stick to illustrate how power relations within the group interview should be levelled out to generate an arena suitable for defining, analysing and presenting the community insights into a specific field. The group interview situation in itself is ideal for reducing such difference in power. By building trust and reducing the differences in power, the participatory method and the group interview will

²³ Observations 24th, October 2000.

enable the community to collectively identify the impact of the landmines and suggest how the issue should be tackled. By levelling out issues of power, the LIS survey will be seen as an institution the group works with to define the situation, and the survey team will have participated in a community activity of identifying landmine impact. But if differences in power are not levelled out, the LIS survey will be perceived as an outside organisation evaluating whether or not the village is eligible for mine action, in this case the village would do wisely in trying to adapt their response, to achieve the best solution for themselves. The LIS would then be perceived as an institution the village was working toward, and the group interview becomes a negotiation for resources. These two settings will yield very different answers with regard to landmine impact. When confronted by an external delegation, any village would send their top guns to give an impression that would be favourable for the village, sending the people who are expected to represent the village in the best way. Usually this means that the better-off men would be favoured. The interview becomes a place of negotiations over whether, and what type of assistance the village can get and whether it deserves it.

The interview situation I experienced during my time with the LIS survey took more the form of a teacher talking to a classroom²⁴. The interviewer and the recorder stood in front of the group while the participants were seated around. The maps are drawn on a board, which the interviewer set up before the interview was called. The interviewer and the translator in conjunction control the conversation. This approach maintains a clear distinction between the LIS survey team and the participants and acts to preserve the traditional power relation that is usual during such information gathering. As a result, there was little of the internal discussion that would bring forward the complexities of the issues that were discussed. The conversation was not within the group but rather between the group and the interviewer. The information obtained took the form of a brainstorming that resulted in a listing of the blockages, rather than a discussion in which the group could analyse the community situation. In the Chifunde interview none of the participants put forth objections or introduced topics that could initiate a further discussion and bring out contrasting insights into the understanding of landmine impact.

²⁴ Observations 13th October 2000

During the interview the group took on the part of “diplomats” for the region. It is understandable that they assume this position, as they already hold central positions in the village and the surrounding area. This observation, however, was not recorded in the interview by LIS survey²⁵. There was little to indicate what position they held in the community or how this would influence their responses. But the positions of the participants and the dynamics within the group interview affected the responses given by the participants, as they adapted their responses to the focus of the survey.

5.2.3 Adapted response to survey focus

The first example of how the group chose to give an adapted response was when they were asked the question, “How many people fled from this place during the war?”²⁶ The answer given was 5000. This is an impossibly high number, considering the size of the village. This is the total number of people living in the sub-district of Chifunde today; in the village of Chifunde there are about 446 people. There are, however, several factors that can explain why the number given to the survey team was inflated. During the confrontations between RENAMO and FRELIMO, Chifunde became a transit centre for Internally Displaced People (IDP’s) and a halfway stop on the way to Malawi and Zambia, but most were transiting refugees. This was a natural function considering it was an administrative centre and the site of a FRELIMO army base. Notably, the question posed by the LIS survey team was, “how many villagers fled from Chifunde” and not, “how many refugees transited through the area”. Because of the inflated number it is unclear which of these questions the participants answered. The LIS survey does not have any way of registering how many of the refugees were IDP’s passing through the village. If the respondents include the number of IDP’s passing through a village, the number can be expected to increase cumulatively the closer the surveyed village is to the borders of the country. And the number will reflect how close the

²⁵ All of the participants were recorded as having farming as their main source of income in the questionnaire. There were two exceptions, who were recorded as having other forms of work; still, these two were also primarily farmers. They were recorded working as a counsellor for mine awareness and as an information worker for the socially disadvantaged for the Mozambican Red Cross.

²⁶ The question is an example of how historical data are used to triangulate information within the survey; it does so by using information about conflict history to support information about the landmine situation. The question is not used in the calculation of landmine impact.

village is to the border, not the previous conflict situation in the village. Another possible explanation is connected to the absence of data on the previous refugee situation. Lack of numerical data means that the information provided by respondents may not reflect the actual number of people who passed through or fled from the village but rather reflect the perception that the number was large (considering 5000 to be a considerable number).

A second example of how the group adapted the response to fit the focus of the survey interview was during the report of mine accidents involving livestock. The group interview reported that 55 goats were killed by landmines during the past two years; this was not the case. In the village no goats had been killed during the past two years, although there had been one incident, in which three goats had been killed, the first year the mines were laid, in 1991. The time limitation of the question to two years preceding the survey is set to avoid mapping these singular landmine incidents and target communities that experience continued accident potential. Communities adapt to the landmine situation; Chifunde adapted by moving the livestock to the other side of the village, reducing the impact and ensuring that there were no more accidents.

A third example of adapted responses was during the individual questions recording perceptions of landmine impact. Before starting the interview, a young man blurted out, in Portuguese, that there was no problem with regard to the landmines in the village. He received no response, and the interviewer continued giving his introduction of the survey. After rounding up the interview, about two and a half hours later, the participants were asked, one by one, “Are you concerned about the landmines in your village?”, “Do the landmines affect your behaviour?” and “Is your concern stronger or less strong than earlier?”. All participants in the Chifunde interview responded that the impact was very strong, more so now than previously and that their behaviour was strongly affected by landmines. Even the young man who had been very sure that the village did not have a problem with landmines was now very much concerned about mines, and his behaviour was very much affected by them. The second group interview conducted during my LIS study reported no impact of the minefield; nevertheless, the responses to the individual questions were similar to those seen in Chifunde. The mines had a high impact during individual questioning. It seemed as though the respondents did not feel free to reply independently, but replied what they thought was

expected. If the responses to the individual questions follow this trend, the questions become worthless and will not give any information about the impact of the landmines on the community. I do not believe that the questions themselves are leading, but they have unfortunate results because of the group dynamics.

There might be several reasons for these responses; I can only assume that they fall into one of the following categories: reflection about the impact of landmines during the interview, courtesy towards the interviewer and reluctance to “disappoint”, or adapted response to the situation at hand. The group interview might have given the group time to reflect on the impact of landmines. The fact that the view of the impact of the landmines changed so rapidly during the interview is clearly a result of an increased consciousness about landmines. People do not live in constant fear since the landmines are contained and clearly marked, and the situation is normalised into everyday actions. But this does not mean that the mines do not have a social or economic impact. In this sense the consciousness is not new but is just triggered when the respondents are given time to elaborate. However, the interview lasted about two and a half hours, and the mapping of mine accidents and socio-economic impact took probably no more than ten minutes; this does not leave much time to elaborate on reflections of the impact of the landmines. The respondents might respond as a courtesy towards the interviewer. After a two- and a half-hour interview, participants in the interview want to convey that the visit to the village was welcome and needed. By giving the signal that the mines are an important factor in their lives, they convey the message that the interview was not in vain, that they do have a problem. They know the destructive effect of the landmines, and they are afraid of this. Therefore, to say that they are preoccupied and concerned about landmines is not wrong, but it is not the same as to say that the mines have an impact. The respondents might adapt their response to the situation. They would be foolish not to answer as they do. By giving the answers they think are expected, they increase the chances of attracting investment and donor resources to the village. If the village were to receive compensation for animals lost due to landmines, the participants would be foolish to report only three lost goats.

In a sense all three of these explanations give some answers as to why the group interview provided the responses they did. The obvious question in need of an answer is why the

participants see it as legitimate to give a modified response. The probable cause should be sought within the group dynamics. The rapid assessment approach of the survey may be insufficient to build the trust and transfer of power needed to access local realities; instead the group adapts responses to fit their perceptions of the survey focus, thereby feeding into the self-sustaining myth rather than engaging fully in a community definition of the landmine problem.

5.3 Concluding remarks

The inability to obtain a representative sample of participants and to create an environment suitable for achieving thorough local analysis of landmine impact does pose difficulties for the survey, with regard to bringing to the foreground local knowledge and analysis, as held by a variety of members of the community. The survey interview takes the form of a rapid assessment rather than substantial participatory assessment. The survey does obtain information of landmine impact but can hardly capture the complex reality and the diverging perceptions present in the community. Specifically, this presentation has assessed whether the exclusion of vulnerable groups from the group interview can have the result that important impact information is not mapped, and whether the adaptation of the group responses can yield answers reflecting the focus of the survey more than the landmine impact in the community. This is problematic because the use of participation gives an impression that reality is captured, whereas the method used can be insufficient to capture the complexities that exist. Although the chapter has pointed to various critical issues in the LIS use of the participatory method, the main focus is given to the participatory approach itself. The chapter has pointed to dangers both in terms of simplifying local power structures and in terms of inability to transfer local knowledge from the community to the outside organisation. Both of these issues seem to represent problems connected with the use of the participatory approach, but they can be counteracted through the critical awareness of the complexities and the diversities of interests present at the local level.

Chapter 6

The Survey Data and Analysis

This chapter analyses the extent to which local knowledge and analysis is reflected in the priorities for mine action. The chapter will present the process of analysis used by the Mozambique LIS, discussing the extent to which the analysis is able to integrate local knowledge and analysis, enabling local perceptions to form the basis for mine action priorities. It will then look at how the impact of landmines on Chifunde was mapped and analysed by the Mozambique LIS, in light of the process of analysis described in the first section. I conclude with an analytical discussion of how the LIS survey is a part of the shift toward participatory approaches, aiming to assess what lessons can be learned from the Chifunde case study.

6.1 The LIS Mozambique analysis of the survey data

This section will describe the LIS survey's process of analysis, specifically how the information gathered from the survey interviews is entered into the IMSMA landmine database to form the basis for impact identification. The impact registration is made on the basis of the group interview, using a qualitative mapping of local knowledge and analysis, but the information is standardised to fit the indicators set up by the IMSMA database. This discussion will use the table presented in Chapter three to look at whether the analysis is based on professional objective information of which resources are blocked by the minefield, or based on community perceptions of how landmines pose a threat to everyday life. Special attention will be given to how the survey is able to combine these two qualities of the data, indicating the dangers of combining qualitative and quantitative methods of analysis.

6.1.1 The Mine Impact Score

The process of analysis is standardised for all GLS surveys; the recorded information is entered into the IMSMA database, giving all the data gathered for the GLS surveys the same format. The surveys use a composite indicator called the Mine Impact Score (MIS) to designate impact and to set priority for mine action. The MIS is calculated on the basis of three types of variables type of contamination, blockage registration, and number of recent

victims (Appendix D). Type of contamination refers to whether the community has a problem with landmines or UXOs, blockage registration refers to whether resources are blocked by the minefield, and number of recent victims refers to whether people have been killed or wounded during the two years preceding the survey. The variables concerning type of contamination and blockage registration are binary, being recorded either as affected or as not affected; the occurrence of recent victims is made cumulative, giving equal importance to each of the victims in the past two years. During the survey the group interview discusses the problems faced by the community in relation to landmines; the reported problems are later entered into the IMSMA database, where the problems reported are assigned to indicators. The MIS score assigns a weight to each of the landmine indicators. Each indicator is given a numerical weight, assigning a value to the landmine problem; by summarising the different landmine problems, it is possible to indicate the impact of the landmines on the community. The numerical weight given to the indicators fall within a range, zero indicating that the landmines “generally create a very slight impact for the life of the community”, one signifying “a slight impact”, two signifying “a serious impact” and three “a very serious impact” (SAC, 2002). The numerical importance of contamination type and number of recent victims is fixed by the SAC, but the blockage score can be adapted to the country at hand. A blockage of a resource considered to be important in one country can be given prominence within the score, while the same blockage may be of negligible importance in another country and can be removed from the MIS score. Therefore while landmines affect nomadic cultures in Sudan or Yemen, it is of no importance in Cambodia; this can be taken into account when weighting the importance of each blockage, making the score relevant for each country. The different GLS surveys weigh the variables to fit the conditions of the country, assigning a weighting between zero and three for each indicator, not exceeding the maximum score of ten for all indicators. Through this analysis, the SAC is able to ensure that the results of the individual countries are comparable at a global level, while at the same time ensuring that the survey safeguards the relevance of the survey to the particular country.

The MIS weighting is set on the basis of what landmine problems are seen as important for each of the countries. “Weights express expert judgement (...) about the importance of a type of problem, subjectively averaged over the observed instances in the communities. (...) The weight applies to an average impact created by the corresponding kind of blockage.” (SAC,

2002:15) At the same time SAC emphasizes the importance of determining the scoring of the MIS before the survey is carried out. This is important because adapting the MIS to the frequency of the recorded blockages might inflate the number of high-impact communities without necessarily reflecting the actual problem faced by the communities. The impact should be set to reflect the importance of the blockage. As the score is fixed before the survey has started, the “subjective average over observed instances” is limited to the pre-survey pilot tests. SAC further encourages the use of the “Nominal Group Technique” within a group of national experts with knowledge of the national landmine problem. The expert group ranks the indicators individually, and the MIS is set by calculating the mean indicator rank. By using this system, the MIS is set primarily according to expert judgement.

In the case of the Mozambique LIS the MIS was set on the basis of the CIDC’s experience, their discussions with knowledgeable persons and a review of relevant literature (CIDC, 2001:82); none of the national HMA capacities reported that they had taken part in determining the impact ranking for the MIS. This indicates that the MIS was set according to expert judgement, also in the case of the Mozambique LIS. IND later requested a revision of the established MIS because of the large number of communities placed in the low-impact category. Their rationale was that for planning purposes it was not useful to have a high number of communities in a single category (CIDC, 2001). It is also evident that to apply for funding for long-term HMA in Mozambique it can be severely damaging to designate close to 80% of the landmine contamination to the low-impact category. In conjunction with the establishment of different MIS alternatives, the CIDC also established a Normalised Composite Index utilising several of the data sources within the IMSMA database, which were normally intended for triangulation of information and for quality assurance. The most interesting among these controlling variables was the use of the proximity of the affected community to the minefield, the size of the population and the perception of increasing or decreasing impact over time (CIDC, 2001:87). Weighting indicators after the data collection, through the information available in the IMSMA database, can open many possibilities for further targeting of HMA. The initial steps taken by the CIDC to analyse data show only some of the possibilities that open up through the use of the IMSMA database. The combination of MIS and IMSMA can prove a potent tool for ensuring that the HMA can be targeted where it can do the most good.

The MIS is based on a weak metrics, simply cumulating values given to the various problems caused by landmines that are found in each community. The more pervasive the mine problem, the higher the landmine impact on the community is said to be. The survey records the type of problem caused by landmines in the community but does not measure the numerical extent or degree of those problems (Benini, 1999: 6). Therefore having one landmine on a field and still being able to cultivate 95% will give the same blockage impact as having the whole field blocked, as such the indicators are very dull at the low- and high-intensity end of the landmine contamination (Benini, 1999:10). If the landmines affect the community in a number of areas both in terms of blockage of valuable resources and through high accident potential, the score is cumulative for each of the problems the community is facing. The MIS score is in this way giving predominance to communities that have a pervasive landmine presence, although not based on the amount of the blockage in each case. There is also an exception in the GLS surveys for blockages where the community clearly expresses that the blockage of a resource has no impact on the community, these blockages will not be mapped by the survey.

The strength of the MIS is that it occupies a middle ground of HMA impact assessment. Unlike other existing landmine impact assessments, the LIS does not give predominance to particular interest groups. It does not solely assess the economic viability of mine clearance as does cost benefit analysis, nor does it only focus on accident prevention. Instead it gives priority to those communities that have suffered from landmines by several standards including accidents, blockages of economic assets, blockage of basic security, and institutions and services. Instead of focusing on any one of these sectors it aims to arouse “human compassion” toward communities that experience a complex set of impacts (Benini, 1999:11)

6.1.2 Composite indicators and the recording of landmine problems

The first component of the MIS is the indicators mapping the *presence of munitions*. This information is only mapped at the minefield level and returns a simple statement whether landmines or unexploded munitions are present or not. The weighting of this indicator is fixed within the MIS and cannot be adjusted according to country-specific conditions. A weight of serious impact is given for the presence of landmines, and an additional point is given for the presence of UXOs raising the indicator value to very serious impact. Designating a score of

very serious impact for the mere presence of landmines and UXOs seems exaggerated both compared with the weighting of the other blockages and compared with the recent victims score. There is little to indicate that the presence of landmines in itself constitutes any impact of social or economic importance. If the landmines do not block any objects or represent any insecurity to the community, why should their presence contribute to the community being ranked with higher impact? Nor is it credible that the difference in contamination type (landmines or UXOs) has different effects on the community impact – that is, different effects on how the munitions restrict access to the area. From this presentation it would seem that the registration of type of munitions is not linked to perceptions of impact but only looks at the objective presence of landmines, and that the information is most useful to the clearance operators when deciding on the appropriate clearing techniques. On the contrary, using villagers to report the presence of landmines can rarely give an objective identification of a minefield. Not all minefields are as well known as the one in Chifunde, where villagers had received good knowledge of the positioning of the minefield from the army. In many cases the reported minefields will be reports of a perceived threat not of landmine information, although this perception will result in the same impact and area restriction as if there had been a minefield there. The consequence is that the survey is only able to map suspected mined areas, not minefields. Thus the indicator illustrates the conflict between objective information and community perceptions found in the survey.

The second component of the MIS, is the *blockage of resources caused by landmines*. The Mozambique LIS used seven main indicators covering the resources of agricultural land, pasture, drinking water, water for other uses, non-agricultural land, housing, roads and other infrastructure. These indicators will be examined individually in the following description.

Blockage of access to agricultural land is the most commonly reported blockage in Mozambique. Irrigated and rainfed croplands are recorded as separate blockages in the other LIS surveys but were combined in the Mozambique MIS score, mapping all agricultural blockages under rainfed land. Irrigated cropland is not widely available in Mozambique, and to adapt the score to local conditions, it was removed from the MIS score. The Mozambique LIS designated serious impact to blockage of agriculture, although there was pressure from the national co-ordinator for mine action, IND, to raise the weighting of this blockage to very

serious impact. It is probably right to give this issue a higher weighting than to other blockages because it would focus the score towards local needs and realities, land being the single most important factor for food and life security in the rural countryside. On the other hand, the issue of land rarely has very high impact on the communities in Mozambique due to high land availability; therefore the fact that land has high importance does not mean that the blockage of land has high importance. As illustrated by the Chifunde example, the importance of agricultural land was due to the context of the community, and the blockage was of importance to the community only because there was a population pressure and land concentration, with resulting pressure on the agricultural resources. If the pressure on the resources is low, the chances are that the utilization of the demined area for agricultural purposes would be delayed, and the gain from demining the area will be reduced. The IMSMA does map population size and to a certain degree also population pressure. This information is not used in the scoring process, but the data can be accessed at a later stage to get an indication of the importance of the blockage. But land pressure is also relative to the resources available, and this information is not mapped. The IMSMA database can moderate the information, but there is a need for more qualitative data to assess the actual impact of the blockage. Mapping agricultural land cannot be seen as mapping the blockage of an object. The landmines were planted a long time ago; any farms that were blocked by landmines would now be overgrown. Therefore mapping agricultural land would either map land usage ten years ago or map aspirations to settle into the area now blocked by landmines. But the mapping would not map the direct blocking of agricultural land; it would map the presence of a levelled piece of land with a potential of being cultivated. Most minefields can be recorded as both agricultural areas and pastures, and given that the area has not been used for ten years, it would also contain precious wood resources. The blockage of agricultural land is a good example of the difficulties connected with mapping object information when the object is not visible. The survey is limited to assessing whether a resource is blocked, but it is not able to assess whether the resource is perceived to have impact. All issues of agricultural blockage are given the same weight within the MIS, thereby removing the potential information on how seriously the community is affected by the variable.

Blockage of access to pasture is considered by the LIS to have serious impact. In the other LIS surveys there is a separate indicator for mapping migratory pasture, but this is only used

when landmines affect nomadic cultures. This indicator is excluded from the Mozambique LIS or mapped as a blockage of fixed pasture where applicable. This indicator holds many of the same characteristics as the blockage of agriculture land. The survey is really mapping the perceived need for pasture, this aspiration depends on the contextual situation of the community and should not be considered a blockage of an object. This indicator is also used if there have been any accidents involving animals in the past two years, but there seems to be a tendency to over-report the number of livestock involved in accidents, making this indicator a weak measure of the impact of the blockage of pastures (personal communication SAC January 12th, 2002). This was also seen in the Chifunde interview.

Blockage of access to drinking water can be a severe problem for the village if there are no other water points that cover this need. The Mozambique LIS has designated serious impact to this indicator. This indicator has a different form than that seen for farmland and pasture indicators, because it is a blockage of a physical object; a water pump can be blocked but continues to be a water pump. However, mapping the blockage of a source of drinking water does not indicate of the availability of drinking water, as the village might have other points of access. Again the blockage of a resource does not necessarily indicate that the blockage has any impact on the community, as it would be contextually tied to the availability of drinking water in the community. In Chiuti, Millard and Harpviken (2001) found it hard to get information on whether there was a blocked water source in the previous minefield, probably because people saw it as irrelevant whether there was a water source there as long as it was blocked and out of reach. It was not seen having impact on the community. This is a good illustration of the difficulty of mapping, objectively, all resources that are blocked by a minefield.

Blockage of access to water for other uses, does pose many of the same problems as seen in relation to blockage of drinking water. Since the blocked objects would probably be more linked to inhibited access to riverbanks instead of water pumps, therefore the access to other water sources does not have the same impact on health-related issues as does drinking water. The Mozambique LIS considers this blockage to have only a slight impact on the community; IND has pushed for more prominence to this blockage indicator, raising it to a serious impact, giving it the same impact as blockage of drinking water.

Blockage of access to some non-agricultural land includes nearly all non-agricultural or non-husbandry-related income sources, ranging from fuel wood to building materials, non-agricultural food and medical products. The Mozambique LIS has given this a slight impact. Case studies reported by the AMAC project show that these items can be of great significance to household income and security (Millard and Harpviken, 2001). These resources are generally perceived to be important sources of income and are a source of basic security for the community; as such they should not be seen as inferior blockage of that of pasture, as is the case within this weighting. IND has pushed for increasing the weighting of this blockage to a very serious impact. Giving the indicator a prominent position within the score can reflect the importance of non-agricultural land within subsistence economies but can also be a result of the high frequency of reported blockage, as this would raise the number of high-impact communities and increase the funding for mine action in the country.

Blockage of access to a housing area is given no impact in the scoring for Mozambique LIS. This is probably because a housing area would only be triggered by the blockage of permanent housing, not semi-permanent housing, which is the main building means in rural Mozambique. The blockage of permanent housing would seldom have impact on the local population as long as it is not an official facility, and then it would be mapped as other infrastructure. Although the indicator is not important for the Mozambique MIS, housing would carry the same characteristics as seen for blockage of agriculture, in the sense that housing can only be regarded as blockage of an object when the house is standing. As the building collapses and is washed away by the rains, the area only carries a potential for housing. In the criterion set for the indicator the contextual need for housing is neglected by only recording blockage of permanent housing.

Blockage of one or more roads seems to have consequences similar to those for housing and water supply. Roads are permanent objects that easily are given the value of blocked or not blocked. The Mozambique LIS has set this blockage as having a slight impact on the community. Complicating matters, the SAC protocols states that only village paths and roads connecting the village to important facilities and district and province administrations should be included in the survey (SAC, 2002). This restricts the cases in which the blockage of roads can be used, and it does not necessarily reflect the impact carried by the blockage, although

the community might achieve economic gain by clearing roads to access markets and government services. Studies of landmine-affected communities find that freedom of movement without fear, mobility and independence will in most cases be given higher priority than pure economic gains (McGee with Norton, 2000; Millard and Harpviken, 2000).

Blockage of access to other infrastructure is a category indicating all aspects that have economic importance beyond local community interests, such as industry, bridges and dams and government services. Mozambique LIS designated a slight impact to these blockages. It has been a common problem for the GLS surveys to map these infrastructures systematically, as communities do not consider these issues to have impact and therefore do not report them as blocked. The blockages of infrastructure mainly have consequences outside the village and are therefore not reported as blocked by a subsistence-based village. In Mozambique, as in most other conflicts, landmines were used to guard oil pipelines and electricity lines. Clearing such infrastructure would be an important task for the Mozambican government in the coming years, so that they can be maintained and repaired. Even when mapping infrastructure the survey will interview the village closest to the minefield, even though the community may be far removed from the minefield and does not suffer any consequences from it. The resulting impact description will record the minefield as having no impact on the community and therefore will not reflect the actual impact of the minefield. The consequence is that aspects that are important for the survey are not recorded. This is clearly the case that best illustrates the difference between the objective description of items that are blocked and the resources that are reported by the community. The survey was not designed to record all aspects of landmines, only to record perceptions of impact as experienced by the local residents. The community only gives information on objects that reflect their reality and objects they consider to be resources (CIDC, 2001: 50).

The third component of the MIS is the *victim registration*. The MIS gives much attention to accident occurrences; not only is each incident given a weight of two points, but it is also cumulative for each of the recent victims. The inclusion of accidents as a non-economic impact factor is interesting and important. The problem is the dominance of the indicator within the composite indicator approach. Any community assigned to the high impact category is likely to have recent victims. Blockage can seldom give high impact on its own; a

community only contaminated by landmines must be affected by at least six of seven of the possible blockages, the score hardly gives enough weight to the impacts caused by landmine blockages. Ten years have passed since the war in Mozambique, and people are adapting to living with the threat and are finding new ways to avoid high-risk activity. The MIS score's dependence on recent accidents must be seen as an important reason that 80% of the communities are recorded in the low-impact category. The importance given to the indicator is based on the premise that when individuals continue to engage in risk behaviour despite knowledge of the risk involved, this indicates that the community is having problems adapting to the situation (Benini, 1999). The perseverance of accidents is seen as a good indicator to pick up this lack of adaptation. The indicator also counteracts the tendency to only look at the economic viability of the mine clearance, as many minefields with a high accident potential would not necessarily be cleared. So far, few have tried to integrate the health cost of landmines into the equation. Even though mine victims do have significant costs for treatment and long-term rehabilitation, these must also be related to the more general health situation in the country (Taksdal, 2001). The inclusion of the number of victims is, as such, an important and a good innovation in the development of indicators, because it is able to pick up accidents and health risks without making them a question of the cost and economic viability of the demining. The discussion is an important one, but there are not enough data on the issue to give a decisive answer as to whether accidents are a good indicator for landmine impact. Millard and Harpviken (2000; 2001) have in their case studies in Mozambique questioned the assumption that the occurrence of accidents is a good indicator of high landmine impact. They point out that in many cases accidents caused by landmines were just that: accidents. Accidents are often the result of carelessness, foolishness or ignorance. Therefore a strong focus on accident reduction would not necessarily target high-impact communities. This engagement in risk activity is also related to the degree of adaptation and normalisation of the post-conflict situation. In isolated cases this normalisation of risk can lead to risk activity being carried out in lack of respect for the danger and out of convenience (Millard and Harpviken, 2000). Nor is the occurrence of past accidents a good indicator of future accidents. The indicator is not able to take into consideration that societies learn and therefore assumes that the community will have a steady number of victims. The indicator does not take into account the context of the accident, and whether the community does experience a continued

accident potential. Again we arrive at the conclusion that it is not the occurrence of accidents that carries impact; the impact is entrenched in how the community is able to deal with the landmine presence, since such accidents are but a symptom of the problem, not the impact. How individuals act in response to the landmines will change over time and be connected to changes in the capabilities and vulnerabilities experienced by the individual.

6.1.3 The analytical process

The above presentation of the LIS process of analysis illustrates two difficulties: first, the survey does not map the conditionality of the impact but instead records all problems of the same type as indicating the same impact. Secondly, the survey does not separate sufficiently between the object information and perceptions; therefore the survey is not able to record all resources blocked by the minefield.

The MIS is based on a calculation that assigns the same weight to all landmine problems of the same type. In this sense, the survey looks only at the blockage of a resource and not at the extent to which the community has access to the resource or to alternative resources. The survey does not distinguish between communities where the blocked resources have an impact on daily life and those where the object blocked is of no central importance. The example of a blocked water pump was used to illustrate that the blockage of one water pump is not significant to the community if there is access to other water pumps that are working. Steps could be taken to modify the impact; by weighting the indicator according to how much of the resource was blocked, parallel sources of the resource, population pressure and pressure on the resource it is possible to avoid giving excess impact to an indicator. By weighting the indicators within the individual blockage, it would be possible to reduce the importance of physical blockages that do not carry impact. However, the analysis of the extent of the impact of a particular landmine problem can only partially be produced by the use of the IMSMA database. This presentation has illustrated that the group interview did provide information on the extent to which the community was affected by the various landmine problems. Yet this information was not entered into IMSMA but was replaced by standardised weighting of the impact, set by the MIS.

Furthermore, the survey displays a difficulty in separating information concerning those objects blocked by the minefield from the perceptions of what objects hold impact for the

community. The survey poses the question of how the landmines affect the community but records information on what objects that are blocked in the minefield. As a result, the survey displays problems of recording all of the aspects of interest for the survey – most importantly, aspects of interests that are blocked by the minefield but of no concern to the village. The inability to establish the relative importance of the landmine problem of a community makes it difficult to conduct statistical analysis of how many communities experience a particular problem.

6.2 The findings of impact in Chifunde and the resulting data

This section studies how the local knowledge and analysis was recorded by the LIS interview in Chifunde; how the recorded information was reflected in the mine action priority assigned to the community; and how the impact found during the LIS survey interview compares with the information of landmine problems that were brought up in my community study.

6.2.1 Description of the minefields in Chifunde

Three minefields were identified in the Chifunde interview²⁷. The first one was registered a one-hour walk from Chifunde village, close to a village called Catawa. This was a single landmine situated on a footpath; as a response the path was diverted around the mine. The landmine was reported to have been placed in 1969 and was not marked. The second minefield was close to the village of Catete, reported to be seven kilometres from Chifunde; later I found it to be as far as fifteen kilometres away. The minefield was contaminated with landmines and unexploded ordnances and was reported to be one square kilometre in size. The landmines were laid in 1977 to protect an old military installation. The site is now marked with official signs by the NPA. The last minefield was along one side of Chifunde. It is also quite large, 1.2 kilometres by 200 metres (240 hectares), and it was only contaminated with landmines. The landmines were planted in 1992, the same year the peace accord was signed in Rome. The area is now marked with official signs put up prior to the demining operation.

²⁷ The two minefields in Catawa and Catete were not known to the LIS survey team prior to the survey. If the survey team had known, the minefields would have been mapped in separate interviews, but as they were brought up during the interview, the survey team conducted a single mapping for all minefields.

There were no human casualties in any of the three minefields in the Chifunde area. Therefore the extended victim registration section was not used. There are three questions in the questionnaire that map blockage caused by the presence of landmines and the socio-economic impact of the minefields. The first identifies and maps the major problems caused by landmines (G23), and the other two assess the extent of this impact (G24 and 25). The G23 question asks how the landmines affect the village. Most of the survey is dependent on this single question to access information on the landmine impact. The group interview in Chifunde identified three issues of importance to the impact of landmines on the community. First, locals could not get access to the farmland. Secondly, they could not get access to fuel wood and material for housing construction. Thirdly, the minefield was impeding village expansion, resulting in higher density of the village housing.

When asked whether this situation was worse or better now than before (question G24), they responded that the situation had deteriorated after 1994, largely as an effect of the refugees returning after the war, which led to an increase in population. Furthermore, they reported that the fear varied throughout the year. They were more afraid during the rain season, because they were worried that the mines could shift into new areas previously unaffected by landmines (question G25). This contrasted to some extent with the responses I received during the follow-up study, in which the situation was described to be less severe after the refugees started returning to their place of origin and also after the area was officially marked by the demining agency (Interview, Ziambene). This could indicate that the LIS group interview overstated the impact in comparison with that described in the follow-up interviews. It is important to emphasise here that I do not wish to undermine the perceptions stated in the group interview, but the answers recorded during the interview do not seem to reflect general opinions throughout the village, which were more pronounced in the group interview than in the follow-up individual interviews. It is, however, important that LIS enable the community to analyse trends and changes in the landmine situation, giving a dynamic understanding of the landmine impact and how it affects the village. It is an aspect that had not been possible through the static problem identification used previously.

The three topics that were brought up in the group interview were blocked access to cropland, to firewood and to building materials and lack of space for village expansion. When these

data came to the analytical office in Maputo to be entered into the IMSMA database, they were first reduced to three key words that were entered into the database. On the basis of these three words, the blockages were established and the MIS calculated. I have not had access to the final data or the IMSMA database, but by using the IMSMA database indicators and the MIS score used for the Mozambique LIS, it is possible to assume what impact would be assigned to Chifunde.

The minefield would be recorded to block access to agricultural land. Although this is mapped under one indicator, the IMSMA database further divides this blockage into irrigated or rainfed land, which are again subdivided to type of crop cultivated: grain, fruit or vegetables. The Chifunde interview does not give any descriptions of the type of cropland blocked, but in the case of Chifunde, the blockage should have been recorded as rain-fed and grain. Further, the blockage of wood resources would be recorded as blockage of non-agricultural land, the subdivision within the IMSMA database would further record Chifunde to have blocked access to building materials and to fuel wood. The report of lack of possibility for expanding the housing area is not a blockage and would not be recorded. The information would not be mapped, first because the Mozambique LIS does not use this indicator within the MIS score as they do not consider it as important for the landmine situation of the country, and secondly because the housing indicator is designed to map blocked objects and not the aspirations or the needs of the community connected to housing areas. The issue of the 55 dead goats was not mentioned as an impact in the group interview (discussion under G23) but was reported during the mapping of recent accidents involving livestock. The occurrence of animals killed or wounded was mapped as a blockage of pasture within the survey and the IMSMA database. When the resulting mine impact score for Chifunde was calculated, the village would be assigned a score of two for the presence of landmines, two for the blockage of agriculture, two for the blockage of pasture and one for the blockage of non-agricultural land. This would total a MIS score of seven and place Chifunde within the medium-impact category (Appendix D). But if the score of two, from the false report of accidents involving animals, was removed from the score, this would have placed the village in the low-impact category.

6.2.2 Mapping impact for several minefields

Despite the mapping of three minefields during the LIS survey in Chifunde, the description of impact given by the group interview only seems to describe one of the minefields, simultaneously only one of the minefields affected the village of Chifunde directly. The G23 question explicitly asks for problems caused by landmines in “this” village. It is clear that the response given by the group interview is contextually connected to the situation of the village of Chifunde. The villagers of Chifunde naturally have good knowledge of the surrounding area and the neighbouring villages and were therefore able to give accurate details of three minefields around the village. But they would not have accurate knowledge about how the minefields affect the population living close to them. Even though the impact was recorded for only one of the minefields, the impact recorded in the interview is assigned to all of the minefields, as there was only one impact assessment, thereby denying the other villages the opportunity to voice their perception of the impact of the minefield proximate to their village.

I have not visited the other villages affected by landmines around Chifunde, partly for security reasons and partly because the object of my study was the village of Chifunde. But from the maps drawn by the LIS survey and the description given by the group interview for drawing the maps, it is possible to predict some issues of impact that might be caused by the presence of landmines. The first minefield was a single landmine located on a footpath; this path was diverted around the landmine and is therefore not likely to pose restrictions on movement. Nor is this impact mentioned in the Chifunde interview. The blockage of the footpath would in any case fall outside the criterion needed to be mapped as a blockage of roads, as it was only a footpath and did not block the only access to the administrative centre. The second minefield, in Catete, is larger and probably fits better with the impact mapped in Chifunde. The village of Catete was reported to be in the centre of a 2000-metre by 500 metre minefield. The mined area was reported to be wooded and levelled and could therefore be mapped as blocking both resources of farmland and of wood and building materials. But Catete was never a refugee camp and did not host the repatriation of returnees the way Chifunde did, therefore limiting the conflicts caused by a large population expansion. Moreover, the enclosure of Chifunde is quite different from the one in Catete. Catete, reportedly being situated in the middle of a minefield, could be subject to more substantial blockage of safe movement. It is difficult to say whether the two villages experience a similar impasse to

village expansion. The minefield in Catete is probably blocking access to the river and perhaps to some degree also the road, but this was not mapped in the Chifunde interview. All in all it is difficult to assume what physical blockage and community impacts are experienced by Catete on the basis of the information given in the LIS survey. It is evident, however, that the impact in Chifunde interview does not reflect the problems experienced by the village of Catete.

I witnessed a parallel to this situation during quality assurance of data in the LIS analytical office in Maputo. One of the data entries into the IMSMA database concerned a minefield mapped a long distance from the site of the group interview. The LIS employee commented that it was not unusual for villagers to move great distances by foot and that one can expect survey informants to have good knowledge of an extensive area surrounding the location of the interview. This is true, and even more so because of the population mobility experienced during and after the conflict due to the large number of IDPs. But knowledge of the whereabouts of a minefield and the blockages connected to it does not imply that the informants have good information on the impact of that minefield, which can rarely be experienced by people not living in proximity to the minefield. This can have quite far-reaching implications as to what the data can be used for. The information mapped is limited because of its local embeddedness. To assume a diffusion of the impact beyond the site of the mapping, generalising the impact to the surrounding area, clearly weakens the relevance of the data. In Chifunde this was done when the village was used as a site for the group interview, whereas the minefields addressed did not necessarily have an impact on the Chifunde community. In this sense the impact recorded in Chifunde is assumed to radiate out from Chifunde and have the same impact on the communities of Catete and Catawa as the landmines have within Chifunde. Ultimately, the LIS survey was only able to record the impact experienced by people living in Chifunde.

6.2.3 How is the Chifunde landmine impact reflected in the analysis?

The interview took two and a half hours, including the mapping of the three minefields and the socio-economic impact on the village of Chifunde. Only 15 minutes of this time was used for mapping the information that forms the basis for calculating the MIS score for the community. The most time-consuming activity was the drawing of maps of the mine-affected

areas²⁸. The survey team recorded the discussion of the group interview; however, the survey team did not record the whole discussion but reduced the data information so that they were left with the topics that were discussed. In the case of Chifunde this reduced the data recorded to three topics.

In mapping in Chifunde, the mapping of blockage of pasture was the decisive indicator, elevating the village from the low-impact to the medium-impact category. The reporting of this blockage was a result of the internal group dynamics rather than actual impact, and the indicator should not have been used in the case of Chifunde because there were no recent accidents involving livestock. The area cleared could very well be used for pasture, but the group interview did not emphasise the importance of this use during the group discussion of impact, nor was it mentioned in any of the interviews during my community study. The case of Chifunde was a good example of the importance of a thorough discussion of how the community is affected by landmines, as the limited discussion in the Chifunde case failed to bring up all the issues concerning how landmines affect the village. A rudimentary discussion compared to an in-depth and thorough discussion can make the difference in whether multiple impacts versus a single impact is recorded. This could amount to the difference between low and medium or medium and high impact designated to the community, thereby reducing or increasing the likelihood of the village being given priority for demining.

The two remaining blockages recorded by the survey, wood resources and arable land, were important to Chifunde. This should not be downplayed, since mapping key resources is undoubtedly the main aim of the survey. The fieldwork interviews reported that wood resources were of importance to the community, but it probably did not have a big impact, mainly because there seemed to be other ways to access this resource. But as the MIS score gives equal importance to all reports of the same problem, it is not possible to adapt the importance of the indicator within the MIS score to fit the importance of the blockage in Chifunde. This makes it difficult to distinguish between the two blockages of wood and

²⁸ Map drawing was very time-consuming, as all communication had to go through an interpreter. The detailed descriptions and the need for accuracy took up most of the time during the interview. The discussion also tended to switch to Portuguese for ease of communication, excluding most of the participants from taking part. This was clearly the time when most participants left.

agriculture. Even though they are given different weights in the MIS score, this does not reflect the differences in levels of conflicts connected to the two resources. The blockage of wood resources, in the case of Chifunde, can be compared with similar blockages elsewhere, because the wood resource is non-contextual and only represents the resource of wood. However, agriculture has an impact on the community not only connected to the blockage of farmland itself but also due to polarisation of land ownership, giving arable land a higher impact to the community than the resource alone. A different community with contextual vulnerabilities connected to wood resources would not compare with the impact found in Chifunde. Simply comparing the blockages does not necessarily reflect the importance of the blockage.

None of the aspects connected to the enclosure experienced by Chifunde were mapped by the survey. These aspects were connected to the landmine situation in terms of both basic security and economic development (Interview, Lissene). For the community the village enclosure was seen to be an important impact, blocking access to much-needed housing areas. It was also the cause of insecurity for those living close to the land subsidence (Interview, Luis). Moreover, the claustrophobic enclosure could lead to a sense of powerlessness, as the village sees itself as restricted, not being able to develop and expand. This last issue was clearly important for the District Administration when deciding to apply for demining of the village. By removing the confinement of the village, the Administration would seek to expand the district capital with the purpose of gaining economic development. AMAC case studies (Millard and Harpviken, 2000; 2001) frequently point to issues of freedom of movement as one of the resources most highly valued by landmine-affected communities. But the survey is not able to map this impact because it is not associated with a blockage.

When all issues of impact for Chifunde are recorded, they are calculated through the MIS score. In the Chifunde case two indicators were defined by the MIS having serious impact (landmines, agricultural land) and one as having slight impact (non-agricultural land). All the same, the MIS score classified the community as low impact (blockage of pasture is excluded). As such, a low-impact community can be composed of solely high-importance blockages. The individual importance of the indicators is lost in the calculation of the score. This means that there are actually two standardisations: first, the composite statement

reflecting the situation in each community, and secondly the impact score reflecting the composite statement. Looking back on how Chifunde's landmine impact was reflected in the analysis, there is not much indication to suggest why the community was classified as it was. The local analysis of impact recorded through the group interview was replaced by a standard non-contextual impact. As the case of Chifunde illustrates, the importance of agricultural land was contextually tied to the land concentration. The real impact of the blockage would therefore be through the mapping of perceptions of how the blockage affects the community. In Chifunde this was mapped, but standardisation classifies all aspects of blocked agriculture as the same.

During the community study in Chifunde, agricultural land was reported to have impact for the community and was recorded as such by the LIS. Wood resources were identified as blocked even though they were not of great importance; the blockage was standardised by the survey and mapped as blockage of non-agricultural land. Access to pastures was not blocked by the minefield, but the blockage was recorded by the survey. The land subsidence issue was reported to have impact but was not recorded by the LIS. Finally, there are two mined areas that were recorded as mined, but the impact of these minefields was not recorded at all. The LIS survey in Chifunde only reports the blockages found within village perimeters and is unable to reflect the impact of landmines in the surrounding minefields. The use of a participatory approach to map community impact indicates the ability to bring to the foreground local perceptions of impact. But the analysis of the Chifunde data illustrate that there were several impacts, some of which were recorded and others neglected, some which gained emphasis and others which lost emphasis through the process of analysis.

6.3 Can local knowledge form HMA policy and practice?

The survey had clear intentions of mapping and analysing both blockages and socio-economic indicators, as well as people's perceptions of the landmine situation. This discussion has suggested that there is a tension between the method used for mapping impact and the method used for analysing the data. Starting out with the aim of getting the best of two worlds, the resulting data and analysis prove unable to respond to the needs of either world.

6.3.1 The shift revisited

The second research question examines the extent to which the impact assessment is able to draw on local knowledge and analysis to form priorities for mine action. The definitions given for the LIS surveys in Chapter 3 outline two parallel needs for the survey. On the one hand, the SAC definition of the survey states that rough calculations are to be made to give relative socio-economic importance of the landmine presence, indicating that the data analysis is meant to make the data comparable. On the other hand, the Mozambique LIS specifies that the survey should provide an overview of the social and economic impact as perceived by the residents of landmine-affected communities, indicating that the relative importance of the landmine situation should be based on the community analysis of the situation. The discussion above has assessed the extent to which the survey is able to achieve the best of both worlds, using local knowledge to assess relative socio-economic impact on the community. The discussion should also serve as a foundation for assessing to what extent the shift has moved priority setting within HMA from professional impact identification to community impact identification.

The description of the composite indicators given above illustrates that the survey does carry the potential to pick up both subjective and objective information through the interviews. On the one hand, the blockage indicators give a passive description of land use; on the other hand, they will ultimately carry information of a subjective nature like hopes and aspirations for the future of the village. The balance between subjective and objective aspects varies from indicator to indicator, but all the composite indicators carry elements of both. The case study indicates that the survey has not successfully mapped all objects that are blocked. At the same time the survey does not fit into the community focus because the analysis is not able to valorise the local opinions, but removes information of degree of impact and replaces it with a standardized impact weighting. The description of the process of analysis shows that the survey is not able to record either of these aspects or has problems doing so. This leads us to position the LIS survey as a middle ground where local opinions are judged through the priorities of the expert professional.

The following table indicates the need for a new analytical category to describe the position of the LIS within the shift. The survey does have elements of traditional expert analysis, in

which the premises for analysis is set by expert opinion, with the aim of assessing objectively which resources are blocked by landmines, but the survey also has elements of participation in which the community is enabled to analyse the landmine situation and give details of hopes and aspirations. There is a need to expand the previous table and add a new column with an intermediate position, in which local experts identify resources within an analytical framework set up by outside experts.

		Degree of participation / position within the shift		
		Professional	Intermediate position	Community
Power		Expert	Local expert	Participation
Knowledge		Objective information	Expert-defined community-identified	Perceptions

Table 2: Composite indicators as inhabiting the middle ground within the shift.

6.3.2 The relation between data and analysis

The strength of the data analysis lies in its treatment of resource information. Resources are given a numerical value, and the importance of the resource is directly reflected in the importance given to the community. At the same time the survey methodology are incapable of recording the presence of all objects blocked by the minefield. The analysis is strongest where the method is weakest. The description of Chifunde and the composite indicators illustrates a difficulty in arriving at an objective description of the blockages caused by the minefield, first because not all of the indicators refer directly to objects (for example, agricultural land, pasture and non-agricultural areas), and secondly because the interview focuses on how landmines affect the community. This means that issues of interest for the survey may be overlooked, since they are not perceived as significant by the community. This is primarily in relation to infrastructure and industries that have an impact beyond the community and does not relate to the subsistence economy of the community.

[The Mozambique LIS] was designed primarily to gather information on the perceptions of the residents of the landmine-affected communities of the current impacts of [Suspected Mined Areas] on themselves and their communities. There are, therefore, aspects of the landmine situation in Mozambique on which the LIS cannot be expected to cast light, including: the location of mined areas that do not impact communities; the impacts of mined areas near communities but that do not affect them, such as blocked access to electrical transmissions or water pipelines that do not service the

adjacent communities; and victims of landmines (...) who are not affiliated with or known to any community. (CIDC, 2001:50)

In some ways this is in accordance with the aim of the survey, as it opens for the opportunity to exclude objects that are reported not to have any impact at all, only mapping objects that are of importance to the village. The survey method aims to map perceptions, this does have implications for the aim of mapping the relative importance of the suspected mined area. If not all aspects of landmines are mapped systematically, two communities affected the same way might be mapped differently, and the survey cannot reflect the relative importance of the community. If the survey aims to give equal impact to all objects of the same kind, it would be better for all resources to be mapped objectively. The objects recorded by the survey are contextually tied to the communities' perception of the impact. Contextual data do not represent the best starting point for statistical analysis.

Conversely, the strength of the methodology lies in the ability to map perceptions of how landmines affect the community. The survey team facilitates the group to display local knowledge as well as to analyse how the situation affects and inhibits community activities. At the same time, the data analysis is not ideal for maintaining this knowledge, either to assign priority to the community or to inform long-term planning and policy. The methodology are strongest where the analysis is weakest. The findings from Chifunde and the discussions of the indicators illustrate that the survey did map local landmine analysis but that this information was lost in the standardisation process of the LIS survey. The issue of aspirations for future land use was probably one of the most intricate in the survey analysis process, since it was included as information in the mapping of some indicators but was excluded in others. The mapping of Chifunde gave details of community aspirations and perceptions of how landmines affected the community. But for the LIS survey to be able to record these aspirations, they had to be designated objects that were blocked. In Chifunde agriculture was mapped while housing was both excluded from the mapping and from the scoring analysis. Both problem areas must be seen as potential uses of the area and as reflecting aspirations for future use; both reported blockages were perceived by the community to have an impact. The Chifunde case study described the enclosure of the community and the blockage of aspirations for further development of the community as a landmine impact but this does not refer to a checkbox in the survey and cannot be recorded.

Furthermore, the most important blockage created by landmines is the blockage of freedom: freedom of movement, independence and self-respect; freedom to walk without fear. The survey does not have the ability to map aspects of landmines that do not have a physical manifestation.

6.3.3 Whose standardisation

There will always be loss of information when data are put through a standardisation process. Standardisation of information is a necessary process for the interview data to fit into a national survey. Ideally, the standardisation process simply groups information into bulks, all information within a category reflecting the same problem. Through standardisation it is possible to assess how many communities experience a given problem. For all objects to reflect the same category the data must be non-contextual. The impact I found for Chifunde was connected to objects (for example, agriculture and housing), but the impact of these objects was tied to the context of the community. Agriculture was considered a scarce resource because of the high degree of land concentration; housing was of importance because of the vulnerability of land subsidence and the enclosure experienced by the community. It is important to understand that impact cannot be objectified in a way such that the object would still refer back to the impact. The data that were standardised were to a greater or lesser extent contextual; the case of Chifunde clearly shows that impact was connected to the context of the community. If the vulnerabilities were resolved, the impact of the landmines would not be equally severe; therefore the de-contextualised, standardised information did not reflect the landmine severity. If impact results from a social process and lack of adaptation to a problem, assigning it a physical phenomenon would reduce it to object information. The danger of standardisation is therefore to assume that the standardised data reflect back to the original impact, or that objects that are standardised necessarily are carriers of impact. Somewhat counterintuitively, this means that attention is still given to the physical presence of the landmines, not to the social context in which they occur. The analysis is based on the blockage of objects, whereas little attention is given to the social dynamics that results from the blockage.

It would be easy to ascribe the loss of impact information to the process of standardisation. But the above description points to a deeper problem when standardising the survey data. The

loss of information is a matter of who defines the categories and the language for the analysis. Although information is gathered from the local community, the community's analysis of the situation is not recorded or entered into the survey format. The information is judged and scrutinised to fit into pre-defined categories that do not necessarily reflect the need of the community, and the analysis assigns a weighting to the priorities set up by the community. In one sense this constitutes a moral problem, as the impact initially set by the community is ignored and instead given a standardised impact designated by a planner or a policy maker. By pre-defining the variables used to identify impact, the analysis uses the vocabulary of policy makers to identify local perceptions. The danger is that the vocabulary does not reflect local problems. The process of participation becomes an arena where outside values are entrenched on local realities, not the other way around (Kothari, 2001). The above discussion has pointed to some issues where the survey indicators do not necessarily reflect local needs, the most notable example being freedom of movement, but the discussion has also criticised some of the criteria for the use of indicators, such as housing and road blockage. The use of a standardised language makes it difficult to adapt the impact analysis to the context of the country at hand. The analysis enables national authorities to generate context-specific indicators to fit to the special conditions of each country and also to adapt the weighting of the MIS score. This analytical adaptation is still expert-defined and is not necessarily based on local analysis for confirmation or adaptation. For the data analysis to reflect the shift taking place within development and reconstruction theory, it would have to find a different way of opening up for a community definition of impact. The LIS survey should engage the participants of the pilot interviews (carried out prior to the survey) in a discussion of what indicators should be included in the survey. More importantly, the weighting of the indicators should be sensitive to the community analysis concerning the degree of the landmine problem, and be able to map contextual variations of the landmine impacts. Although this would hardly resolve all the problems associated with the process of standardisation, it would bring the analytical process closer to an integration of a community definition of landmine problems.

6.4 Concluding remarks

This chapter has illustrated the duality of the survey indicators as they carry both contextual and non-contextual information. Furthermore, the chapter has indicated that the analysis of

the survey data distorts the division between local and expert knowledge by analysing local knowledge and analysis according to expert-defined criteria. These two discussions have illustrated the difficulty of answering the second research question. The survey does not choose between different strategies to map impact but tries to combine them to achieve the best of two worlds. The survey does record the data through community analysis but does not analyse the data by the same standard. The LIS analysis applies local information but is not necessarily based on local knowledge and analysis. Standardisation will always remove data diversity but will give information on new areas of analysis. Being able to conduct statistical analysis with local knowledge would have yielded the best of two worlds, because it would allow policy and planning to target the needs of the main stakeholders of HMA, namely the community. I would argue that the concept of impact refers to how communities are affected by landmines; reducing information to blockage of resources does not necessarily reflect the impact the landmines have on the community, as the resource might or might not have impact on the community. I would therefore argue that if standardisation of data should reflect the priorities of the communities, the community analysis regarding the degree of the landmine problem should be integrated into the survey analysis. The analysis must be based upon the weighting of impact as experienced by the community.

Chapter 7

Conclusion

The aim of this thesis has been to study the changes taking place within HMA in the light of the general shift toward participatory approaches in the theory of development and post-war reconstruction. The shift is founded on the notion that development policies and practices that are based on research with intended beneficiaries are more likely to be relevant for the primary stake holders, and therefore more likely to be sustainable (Kothari, 2001). With this point of departure the thesis set out to investigate to what extent the participatory method adopted by the LIS survey succeeded in bringing to the foreground local knowledge and analysis as held by a variety of members of the affected local communities, and to what extent the local knowledge and analysis were reflected in the priorities for mine action.

In conclusion, the thesis has described a substantial shift within theory of development and post-war reconstruction; most importantly, the shift can be seen in how success is measured. Success is measured by the extent to which mine action is able to alleviate human suffering and generate sustainable community development. The shift has redefined who are the primary stakeholders and what issues are most legitimately targeted. The shift has changed the definition of success in HMA; external experts can no longer set criteria for success according to macro economic or infrastructural measures but define it at a micro level referring to communities and their suffering under the threat of landmines. This thesis has analysed the ability of participatory approaches to achieve the understanding needed to target local needs, finding that, although success is defined through the alleviation of local problems, the ability to understand these problems is not yet optimal.

Several factors have been identified that inhibit the ability of the participatory approach, as applied within the Mozambican LIS, to pick up information on how landmines affect a variety of members within the local community. Ultimately, the thesis has challenged the participatory approach's simplistic notion of local power structures; despite aims to the contrary, the approach preserves power constellations both within the community and between the community and the outside organisation. This simplistic understanding of local

power structures has led to the inability to gain access to the perceptions held by vulnerable groups in Chifunde and resulted in the loss of valuable information about the complexities of how the landmines affect the community. Furthermore, the inability to transfer power between the survey team and the community, in the context of the group interview, had the consequence that the group interview adapted some of its responses to the theme in focus for the survey. These issues illustrate the difficulties the survey has in bringing to the foreground local knowledge and analysis as held by a variety of members of the local communities. The participatory approaches are often thought to yield more relevant information, better suited to describe local realities, but the simplistic understanding of both power and knowledge described in relation to the participatory approach inhibits access to local knowledge and analysis.

The thesis has also examined several obstacles that inhibit the transfer of local knowledge and analysis to form priorities for mine action. The use of participation within the survey has clear implications both for the type of data generated and for the data analysis. The survey aimed at reflecting local perceptions of landmine impact but at the same time yielding comparable situation descriptions by applying standardised indicators. The thesis argues that the predefined process of analysis does not necessarily reflect the local knowledge and analysis, most importantly because the standardisation of the survey information does not allow the community to analyse the severity of a reported landmine problem but assumes that all problems of a certain type have the same impact on the community. This standardisation is necessary to compare the importance of the landmine problem across several communities. In response, the thesis argues that the use of community analysis of landmine situation inhibits the ability to compare landmine impact between villages, as the community does not describe the accurate socio-economic blockages caused by the minefield but describes the social and economic implications of the landmines for the community, thereby neglecting information that would have made the community impact comparable with other affected communities.

The Chifunde community study illustrates that perceptions of impact vary with the capacities and vulnerabilities vested in the individual. The fieldwork was able to identify several different perspectives of how landmines affect the community, and the priorities and impact weighting set down by the LIS survey must be seen as one of these views. This diversity of

how landmines can be seen to affect a community is important because a landmine survey can in principle choose to target any one of these realities. Although the author of this thesis has advocated the importance of adapting HMA to fit the needs of the main stakeholders, it is equally true that the survey could have been conducted without the use of participation, based only on expert observation and expert defined criterion. Such a survey would be able to compare the communities using a uniform understanding of social and economic considerations of landmine importance and enable the survey to designate an impact ranking reflecting the relative importance of the community. The LIS survey did not distinguish adequately between the different perceptions of landmine problems and therefore tried to integrate several logics within their survey. The thesis argues that the survey becomes unable to fully reflect the realities and the analysis presented by the individual communities, nor is the survey able to achieve their own aim of comparable impact identification. By combining its two primary aims, the survey loses much information both of qualitative but also quantitative information. The thesis has therefore found that the survey holds an intermediate position within the shift toward the use of participatory approaches.

Despite shortcomings, the shift visible in general development and post-conflict theory and policy is clearly also present in HMA. There is a clear movement toward assessing how landmines affect local communities and also a fundamental rethinking of the concept of impact. Mine action is still a young discipline, and the integration of socio-economic indicators within national landmine surveys is in itself a great shift and has illustrated that the sector is still evolving and adapting to the new measures of success. This thesis has aimed to highlight some of the challenges that follow the aim of understanding local realities and calls for a further critical awareness of local complexities.

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Appendix A: Plan of Inquiry

AMAC Community Study Approach; Plan of Inquiry

<p>Methodology (see chapter appendices)</p> <ul style="list-style-type: none"> Field visit period <ul style="list-style-type: none"> Case selection Access/Dooropener Staff (surveyors/translator) Constraints/practical difficulties Data <ul style="list-style-type: none"> <i>No. of survey respondents</i> <i>No. of primary respondents</i> <i>Documents</i> <p>Community background</p> <ul style="list-style-type: none"> Village geographical composition (with maps) Population Population density War history Mine problem history Minefield - size and location <p>Economic field</p> <ul style="list-style-type: none"> Agriculture <ul style="list-style-type: none"> <i>Land (per household)</i> <i>Land rights/ownership</i> <i>Land tenure system</i> <i>Type of crops grown</i> <i>Fruit trees</i> <i>Irrigation/access to water</i> Fishing Hunting Wood resources Animals Household water Diet Markets Transport (within/outside) Employment Income Use of cash Economic implications of landmines 	<p>Human field</p> <ul style="list-style-type: none"> Perceptions of security Injuries directly caused by mines <ul style="list-style-type: none"> <i>Victim profiles</i> <i>Evacuation facilities</i> <i>Surgical facilities</i> Health <ul style="list-style-type: none"> <i>Access to medical professionals</i> <i>Access to health education</i> <i>Most common diseases</i> <i>Access to clean drinking water</i> <i>Sanitation</i> Education <ul style="list-style-type: none"> <i>Educational infrastructure and materials</i> <i>Teachers</i> <i>Access to school during war</i> <i>Access to higher education</i> <i>Mine awareness in education</i> <i>Attitudes to education</i> <i>Literacy rates</i> <p>Social field</p> <ul style="list-style-type: none"> Local institutions <ul style="list-style-type: none"> <i>Local leadership</i> <i>Conflict resolution mechanisms</i> Religion <ul style="list-style-type: none"> Tradition of collective mobilization <i>Common resources</i> <i>For private benefit</i> <i>Recreational mobilization</i> Local solidarity <ul style="list-style-type: none"> <i>Social support</i> <i>Economic support</i> Shift in community composition Family composition <p>The HMA operation</p> <ul style="list-style-type: none"> <i>Knowledge about operation</i> <i>Confidence in operation</i> <i>Economic importance</i> <i>Mine awareness</i> Potential use of land Other humanitarian need of the community
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Appendix B: Interview Register

Chifunde community study interviews

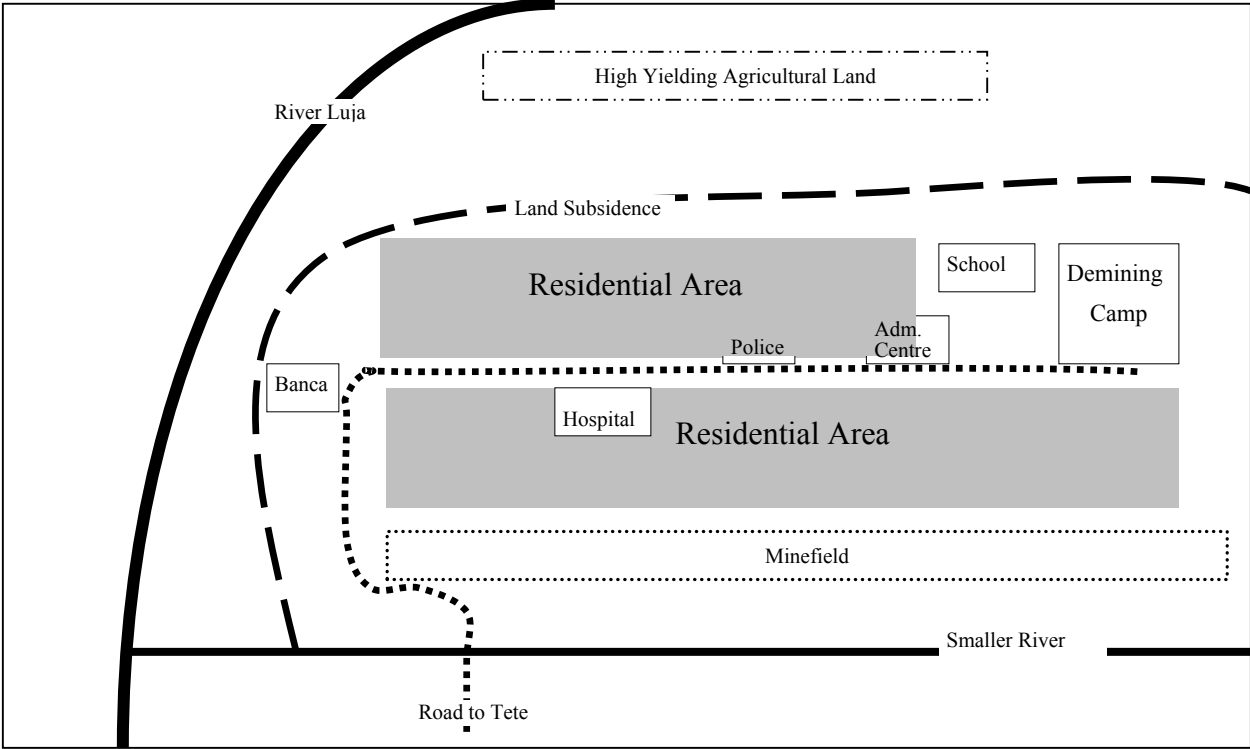
Name of Informant	Special Remarks	Date of Interview
Bernardo Simone	District administration	November 7th
Aleria Roniano	Central Landowner	November 8th
Augusto Romao	President	November 8th and 20th
Elisa Cinco	Central Landowner	November 9th
Maria Janeiro	FRELIMO party member	November 9th
Joaqui Bulako Chafuzika	Nephew of Previous Mfumo	November 9th
Siria Ganizane	Works at Maize Mill	November 9th
José Ziambene	Secretary of the Bairro	November 10th and 15th
Manhanhi Geguessene	Works at the Hospital	November 10th
Canhanhi Nguende	Sensibiladores de minas	November 10th
District Administrator	District Administrator	November 13th and 15th
Francisco Chagaca	Cleared Land in Minefield	November 13th
Bensami Chima	Wants to Clear Land in the Minefield Next Year	November 13th
Samoni Nsigano	Big Landowner	November 13th
Nolina Luis	Husband takes over 2nd half	November 14th
Ussene Mário	Small Farmer from Capata	November 14th
Maganha Jalitar	Continues Overproduction of Maize	November 14th
Ernesto Ngadande	Secretary of Capata Bairro	November 15th
Alberto Socossi Bandeira	Lost Goats in the Minefield	November 15th
Henriques Twoboi	Brother of Previous Mfumo	November 15th
NPA donor visit	Visit to Minefield and Play on STD	November 16th
Bento Matenga	Small Farmer	November 17th
Manuel Manvico	Previous Priest	November 17th
Ernesto Lissene	Husband of Central Landowner	November 17th
Joaquina Janiel	Woman Living by the Land Subsidence	November 17th
Domingas Salgado	Immigrant having problems to access land	November 18th

Francisco Uias Momeje	Teacher	November 18th
Vicente Janota Alfaia	Sensibiladores de minas	November 20th
Batista João	Medical Assistant	November 20th
Calina Celemani	Moved Out of Chifunde for Better Access to Land	November 20th
Antonio Silverio, Muarabo Cateia and Aleria Roniano	Group Interview of Central Landowners	November 20th
Cristina Mário	Moved Out of Chifunde for Better Access to Land	November 21st
Fernando Alberto Muicha	District Police	November 21st
Alberto Ussene	Small Farmer	November 21st
Bande	NPA Deminig Camp	November 21st

HMA operator interviews

Mike Wilson,	CIDC	October 3-6th and December 4-7th
Artur Domingo Verissimo,	IND	October 5th
Filipe Muzima	NPA	November 25th
Derek Baxter	UN/ADP	December 4th
Jackie D'Almeida,	UN/ADP	December 5th
Felisberto João Navunga,	IND	December 6th
Ismael Aderito,	Handicap International	December 6th

Appendix C: Map of Chifunde



Appendix D: Mine Impact Score for Chifunde

Example of LIS score summation sheet²⁹

Locality identifier:	District: Chifunde	Community: Chifunde		
Indicators		Weights	Points	Score
The community reported that			to add	
there were mines.	If so, give	2	points	<u>2</u>
there was unexploded ordnance.	If so, give	1	point	<u>0</u>
		Subtotal for explosives realm:		<u>2</u>
access to some irrigated crop land was blocked.	If so, give	0	points	<u>0</u>
access to some rainfed crop land was blocked.	If so, give	2	points	<u>2</u>
access to some fixed pasture was blocked.	If so, give	2	points	<u>2</u>
access to some migratory pasture was blocked.	If so, give	0	points	<u>0</u>
access to some drinking water points was blocked.	If so, give	2	points	<u>0</u>
access to some water points for other uses was blocked.	If so, give	1	points	<u>0</u>
access to some non-cultivated area was blocked.	If so, give	1	points	<u>1</u>
access to some housing area was blocked.	If so, give	0	points	<u>0</u>
some roads were blocked.	If so, give	1	points	<u>0</u>
access to some other infrastructure was blocked.	If so, give	1	points	<u>0</u>
Total number of points (sum of weights) to be equal to		10		
		Subtotal for socio-economic realm		<u>5</u>
there were <u>0</u> mine victims in the last 24 months.	Multiply with	2		<u>0</u>
		Points for victims		<u>0</u>
		Total mine impact score:		<u><u>7</u></u>

If the impact score is 0, rank the community as having "no known mine problem"

If the score is between 1 and 5, the impact is considered to be "Low".

If the score is between 5 and 10, the impact is considered to be "Medium"

If the score is higher than 10, the impact is considered "High".

²⁹ Aldo Benini, *The Global Landmine Level-1 Impact Survey and Socio-Economic Indicators*, Protocol Document no. 6 (Washington, Survey Action Center, 2000)