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**Participatory Monitoring of
Humanitarian Mine Action:
Giving Voice to Citizens of Nicaragua,
Mozambique and Cambodia**

Susan Willett
Editor



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DEDICATION

This publication is dedicated to all the mine victims around the world who still do not have the support, the recourses or a voice with which to overcome their suffering and regain dignity in their lives.

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By far the most instructive and inspiring experience took place during my visit to mine-affected communities along the Nicaraguan/Honduran border. Here I would like to mention Carlos Pacheco from the Centro de Estudios Internacionales de Nicaragua, who selflessly acted as my translator and guide, Peter Sundberg from the Falls Brook Centre, who is training landmine victims, but above all I want to acknowledge the work of Uriel Carazo and all his *compañeros* at the Comisión Conjunta de Discapitados por la Paz y la Reconstrucción de Madriz (CCDPRM) in Somoto. Their unstinting work in support of mine-affected communities, their lack of resources, and the fact that they are all ex-combatants and mine victims are truly humbling. Their sense of community and dedication drove me on to ensure that one way or another their voices and experience would be heard in the corridors of power. Finally I would like to acknowledge the love and support given to me by my long-suffering husband, Fred Hasson, who put up with my extended absences, but was always there when the going got rough.

PREFACE

At a time when arms control and disarmament are being rolled back in favour of unilateral rearmament, it is reassuring to find that the Mine Ban Treaty (MBT) continues to make headway in achieving its universal goals. This is partly attributable to the fact that the MBT is primarily driven by humanitarian principles, rather than the balance of military power dynamics that have characterized more traditional and less secure regimes such as the Anti-Ballistic Missile (ABM) Treaty and the Strategic Arms Reduction Treaty (START) process.

The durability of the MBT is also attributable to the fact that civil society has played such a central role in the formulation and the evolution of humanitarian mine action. While not party to the treaty, civil society organizations, particularly those that work under the umbrella organization the International Campaign to Ban Landmines (ICBL), have worked tirelessly to further the aims of the treaty, to monitor the treaty's progress around the world, to ensure that States parties comply with their treaty obligations and to place pressure on those States that remain outside the treaty to join. While certain States remain sceptical, even resistant to the role of civil society in arms control regimes, within the humanitarian mine action community the majority of member States welcome and even rely upon the constructive work that ICBL contributes towards achieving the goal of a universal ban on landmines.

One area in which ICBL has been particularly innovative is in the field of citizens' monitoring and verification (CM&V). To date ICBL has evolved the most sophisticated and universal form of CM&V, encapsulated in the annual publication the *Landmine Monitor*. Although not an official mechanism of the Mine Ban Treaty it has come to be regarded as one of the most reliable verification sources on the MBT. The techniques of CM&V are however still in their infancy. There is a sense in which much of ICBL activity in this field is driven by *learning by doing*, a valid form of policy evolution within the development field. By implication learning by doing suggests that the techniques and methodologies utilized in CM&V have yet to achieve maturity.

In this publication, by way of contributing to the debate on appropriate methodologies for CM&V, we have tentatively explored the idea of using participatory monitoring and evaluation techniques in an attempt to expand the notion of CM&V. Established participatory methods of monitoring and evaluation that have evolved within the development field facilitate the input of so-called recipients into the policy implementation process, thereby empowering affected communities through their inclusion. Participatory policies not only attempt to break traditional patterns of dependency but give substance to the idea of democratization and civil society empowerment. The implication of using participatory methods of monitoring in mine-affected communities is that it will bestow even greater strength and credibility to the process of CM&V.

Our study by no means proffers tried and tested solutions. The following pages simply capture the beginning of a process, in which the feasibility of using participatory methods is explored. It is hoped that the contents will stimulate not only further debate on the potential of participatory methods but also encourage practitioners to adopt such techniques, so that those most affected by landmines are included in the monitoring and verification process.

Susan Willett
August 2002

ACRONYMS

ADEMO	Associação dos Deficientes Moçambicanos
ADP	Accelerated Demining Programme
AMAC	Assistance to Mine-Affected Communities Project at the International Peace Research Institute, Oslo (PRIO)
CCDPRM	Comisión Conjunta de Discapitados por la Paz y la Reconstrucción de Madriz
CEEN	Centro de Estudios Estratégicos de Nicaragua
CEI	Centro de Estudios Internacionales
CIDA	Canadian Institute for Development Assistance
CIDA	Canadian International Development Agency
CIDC	Canadian International Demining Centre
CMAA	Cambodian Mine Action and Victim Assistance Authority
CMAC	Cambodian Mine Action Centre
CMAD	Community Mine Awareness for Development (GTZ/ Mine-Tech concept)
CM&V	Citizens' Monitoring and Verification
CND	Comisión Nacional de Desminado
CND	Comissão Nacional de Desminagem (National Mine Clearance Commission)
CPP	Cambodian People's Party
DFAIT	Department of Foreign Affairs and International Trade
FADM	Forças Armadas de Moçambique (Armed Forces of Mozambique)
FBC	Falls Brook Centre
FRELIMO	Frente de Libertação de Moçambique (liberation movement against Portuguese colonialism, since 1975 governing party in Moçambique)
FUNAD	Fundo Nacional de Desminagem
FUNCINPEC	Front Uni National pour un Cambodge Indépendant, Neutre, Pacifique et Coopératif (United National Front for an Independent, Neutral, Peaceful and Cooperative Cambodia) (Royalist political party)
GDP	gross domestic product
GICHD	Geneva International Centre for Humanitarian Demining
GNP	gross national product

GTZ	German Agency for Technical Cooperation (Deutsche Gesellschaft für Technische Zusammenarbeit)
HALO	Hazardous Areas Life-Support Organisation
HI	Handicap International
HIPC	Highly Indebted Poor Countries
HMA	Humanitarian Mine Action
IADB	Inter-American Defence Board
ICBL	International Campaign to Ban Landmines
ICRC	International Committee of the Red Cross
IHDD	Integrated Humanitarian Demining for Development (GTZ concept)
IMCP	Inhambane Mine Clearance Project (Handicap International)
IMSMA	Information Management System for Mine Action
IND	Instituto Nacional de Desminagem (National Demining Institute)
INTRAC	International NGO Research and Training Centre (Oxford)
ISCE-VASERMA	Intersessional Standing Committee of Experts on Victim Assistance, Socio-Economic Reintegration, and Mine Awareness
JLC	Jaipur Limb Campaign
LSN	Landmine Survivors Network
MAG	Mines Advisory Group
MARMINCA	Mission of Assistance for the Removal of Mines in Central America
MBT	Mine Ban Treaty
MgM	Menschen gegen Minen (People against Landmines)
MINSAU	Ministério da Saúde (Ministry of Health) (Mozambique)
MIS	Mine Impact Score
MLIS	Mozambique Landmine Impact Survey
MMCAS	Ministry for Women and the Coordination of Social Action (Mozambique)
MRRE	Mine Risk Reduction Education
M&V	Monitoring and Verification
NCDP	National Centre for Disabled Persons
NGO	non-governmental organization
NORAD	Norwegian Agency for Development Cooperation
NPA	Norwegian Peoples Aid
OAS	Organization of American States

PAHO	Pan-American Health Organization
PEPAM	Project of National Coordination of Educational Activities for the Population to Prevent Mine Accidents
PME	participatory monitoring and evaluation
PRA	participatory rural appraisal
PRIO	International Peace Research Institute, Oslo
RCAF	Royal Cambodian Armed Forces
RENAMO	Resistência Nacional Moçambicana (guerrilla movement during the civil war, now opposition party)
SDC	Swiss Agency for Development and Cooperation
SMA	Suspected Mined Area
TSPM	Third States Parties Meeting
UED	Special Demining Units
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNIDIR	United Nations Institute for Disarmament Research
UNOHAC	United Nations Office for the Coordination of Humanitarian Assistance
UNOMOZ	United Nations Operation in Mozambique
UXO	unexploded ordnance
WGVA	Working Group on Victim Assistance (ICBL)
ZIP	Zonas de Influência Pedagógica

"Mine Action refers to all those activities geared towards addressing the problems faced by populations as a result of landmine contamination. It is not so much about mines as it is about people and their interactions with a mine-infested environment. Its aim is not technical—to survey, mark and eradicate landmines—but humanitarian and developmental—to recreate an environment in which people can live safely, in which economic, social and health development can occur free from the constraints imposed by landmine contamination, and in which victims' needs are addressed."

United Nations Policy Guidelines on Mine Action
and Effective Cooperation*

* United Nations Development Programme (UNDP), "Mine Action and Effective Coordination: The United Nations Policy", www.un.org/Depts/dpko/mine/POLICY_doc.htm.

INTRODUCTION

Remarkable progress has been made in achieving the objectives of the Mine Ban Treaty. In recent years there has been a dramatic decline in the number of mine producers, an almost complete end to the trade, widespread and extensive destruction of stockpiled mines, increasing amount of land cleared of mines and fewer new mine victims.¹ However, victim assistance is one aspect of the treaty's goals that remains under-resourced and somewhat neglected.² In addition, the monitoring and verification of such activities are poorly developed, although considerable attempts are being made by the International Campaign to Ban Landmines (ICBL) and the Standing Committee on Victim Assistance, Socio-Economic Reintegration and Mine Awareness to rectify this situation.³

At the Third States Parties Meeting held in Managua on 18-20 September 2001, the statements of landmine survivors were unequivocal in their observation that victim assistance remains under-resourced and somewhat ignored by donor nations.⁴ Victim assistance appears to have been neglected for three reasons.⁵ Firstly the time frames imposed by the treaty, have focused State parties and donor efforts on compliance with article 4 and article 5 provisions, namely with the destruction of stockpiled anti-personnel mines and with the destruction of anti-personnel mines in mined areas.⁶ Secondly, the methods and procedures for assessing the needs of mine victims are poorly developed.⁷ And thirdly, mine-affected communities still have very little say in the formulation, prioritization, implementation, monitoring and evaluation of mine action programmes that directly affect them, despite widespread adherence to local ownership and participation.⁸

BACKGROUND AND ANALYSIS

The humanitarian ethos that motivates the Ottawa process lies in the desire to end the human suffering caused by landmines. Each year an

average of about 20,000-25,000 children, women and men are involved in landmine accidents. The vast majority of these victims are civilians from highly impoverished communities located in some of the most debt and war-torn countries in the world.

Mine victims include “those who, either individually, or collectively have suffered physical, emotional and psychological injury, economic loss or substantial impairment of their fundamental rights through acts or omissions related to mine utilisation”.⁹ Meeting the needs of victims is a complex, multi-layered task, requiring considerable resources and effort.¹⁰ Victim assistance includes the care and rehabilitation for the immediate and long-term needs of mine victims, their families, and mine-affected communities. For individual survivors this means emergency and continuing medical care, physical rehabilitation treatment, the provision of prostheses, psychological and social support, and employment and economic integration programmes. In addition victim assistance may include programmes, which ensure that socio-economic needs of affected communities are met in the broader context of repatriation, rehabilitation and development strategies.¹¹

The Challenge

Given the parlous state of most post-war economies, few governments are able to provide sufficient assistance to support all aspects of mine victims’ needs. In recognition of this state of affairs, article 6, section 3, of the Mine Ban Treaty states that “Each State Party in a position to do so shall provide assistance for the care and rehabilitation, and social and economic reintegration of mine victims.”¹² In general formal transparency by State parties on the nature and effectiveness of victim assistance is very poor.

The ICBL Working Group on Victim Assistance (WGVA) has noted that victim assistance reporting is conspicuously missing in treaty obligations. In order to give victim assistance proper attention, States parties have been encouraged to report their activities in this regard by using form J for voluntary article 7 reporting. But many States failed to submit reports in 2001 on the current state of victim assistance in their countries.

The weakness of formal State monitoring and verification of victim assistance has partly been offset by the monitoring and verification efforts of ICBL embodied in the annually produced *Landmine Monitor*.¹³ While

the *Landmine Monitor* has no official status under the treaty, it is widely perceived as the most comprehensive overview of treaty compliance, violations and general progress in humanitarian mine action. Despite its informal status State parties to the treaty regard the *Landmine Monitor* as the most credible report of the existing state of humanitarian mine action. It represents the most far-reaching involvement of civil society in arms control verification to date.¹⁴

At the Third States Parties Meeting held in Managua on 18-20 September 2001, landmine survivors observed that victim assistance remained under-resourced and too often neglected by donor nations. A number of initiatives are being taken to redress this neglect. The Landmine Survivors Network (LSN) has instigated the *Raising the Voices* campaign.¹⁵ This is a leadership training programme hosted by ICBL and coordinated by LSN. The programme introduces survivors to the meetings and processes related to the Mine Ban Treaty to ensure their effective involvement in the expression of their needs and means of development of those needs. In the initial phase of the programme seven landmine survivors from Latin America have been chosen for leadership training.

The ICBL WGVA in conjunction with the Intersessional Standing Committee of Experts on Victim Assistance, Socio-Economic Reintegration, and Mine Awareness (ISCE-VASERMA), have produced the *Portfolio of Victim Assistance Programs*, which is designed to raise the awareness of governments, donors and programme implementers about the wide range of activities that constitutes victim assistance. By its own admission, however, the "Programs included in the Portfolio have not been judged or evaluated by WGVA or ISCE-VASERMA. It is up to individual users to conduct their own inquiries and make their own judgments as to the quality, effectiveness and viability of the programs listed in the Portfolio."¹⁶

Enhancing Citizens' Monitoring and Verification

The Bad Honnef Guidelines remind us that: "As much as any human being, mine affected people and communities have the right to shape their own lives and to participate in political and economic decision making which concerns their interests. The implementation of the humanitarian action in a spirit of solidarity designed to promote autonomy rather than creating new dependencies is crucial."¹⁷ This statement promotes the idea of making mine-affected communities the ultimate stakeholders in the

implementation, monitoring and verification of humanitarian mine action, a notion that reinforces the theory and practice of CM&V.

In contrast to traditional approaches towards arms control monitoring and verification which utilizes top-down highly intrusive and expensive techniques of monitoring and verification, CM&V of humanitarian mine action seeks to democratize the process by using bottom-up approaches orchestrated and executed by civil society groups. In such circumstances the affected community becomes the ultimate barometer of the success or failure of a humanitarian mine action programme. The involvement of community members in mine action programmes, decision-making, evaluation and implementation is a major means of achieving the necessary fit between the programme and its beneficiaries. But how can this be accomplished given methodological and resource constraints?

It is our belief that participatory techniques, widely used within the development community for determining programme priorities and for assessing the effectiveness of programme implementation, could offer a useful mechanism for improving the monitoring and verification of the qualitative aspects of the treaty's implementation. At the same time such techniques, by empowering mine-affected communities, can enhance and strengthen the process of CM&V that has been so successfully pioneered by ICBL.

Why Participatory Methods?

“Participatory workshops and techniques provide a framework for affected people to explore their own situation, develop their own criteria of risks and elaborate their own ideas about what appropriate interventions might look like.”¹⁸ Established participatory methods use a combination of observation, semi-structured interviews, participatory mapping, and diagramming, comparisons and focus groups.¹⁹ The techniques are designed to offset biases in gender, age and status and encourage rapid learning through adopting flexible, exploratory, interactive and inventive approaches to learning by doing.

Participation in its capacity as a community level initiative has the ability to generate large amounts of both quantitative and qualitative data that can help prioritize mine clearance and marking, identify the unfulfilled needs of mine victims, and provide information vital for the effective socio-

economic rehabilitation of mine-affected communities. Data, information collection and analysis, although an important feature of participatory techniques, are not its central objective, however. Rather it is the commitment to equity and empowerment. Participatory methods involve key stakeholders in identifying their needs and articulating and prioritizing the most appropriate approaches to meeting those needs. Experience in the development field, in which participatory methods are now routinely used by donor agencies and non-governmental organizations (NGOs) alike, have shown that participation can improve the quality, effectiveness and sustainability of a programme's actions and outcomes.²⁰

Participatory methods are already being utilized by organizations involved in mine action such as the Child-to-Child Trust, the United Nations Children's Fund (UNICEF) and the International Committee of the Red Cross (ICRC) in their mine-awareness programmes. The *Landmine Monitor 2000* has noted that these programmes contribute much more than raising awareness about the dangers of mines, as each programme contains an "integral data-gathering element that assists in the national mine action coordination process." The *Monitor* goes on to say that "as the mine action community begins to recognise the importance of socio-economic data and analysis in planning mine action programs, it is clear that mine awareness should be looking to exploit its comparative advantages."²¹

Applying participatory monitoring and evaluation techniques to explicit verification and monitoring functions enables local people to do their own monitoring, data collection evaluation, analysis, and reporting on humanitarian landmine action, to own the outcome and to teach donors and implementing agencies by sharing their knowledge. In essence power and control are relinquished to mine-affected communities. A process that donors and programme managers may find hard to accept from the outset, but experience in the development field, in which participatory methods are now routinely used by donor agencies and NGOs alike, has shown that they can improve the quality, effectiveness and sustainability of a programme's actions and outcomes.²²

Participatory monitoring and evaluation allows for the beneficiaries of programmes to make assessments of the effectiveness of existing projects. In this sense it reinforces the ideas of learning by doing and is designed to facilitate change in a non-hierarchical, democratic and constructive manner. Thus it not only empowers the major stakeholders in mine-

affected communities, but also strengthens the humanitarian and development principles that underwrite and drive the Ottawa Process, while reinforcing and strengthening the concept and practice of CM&V.

PILOT STUDY ON THE USE OF PARTICIPATION

The challenge facing the mine action community is to create an operational environment that *empowers stakeholders* in the implementation, monitoring and verification of the aims and objectives of the Mine Ban Treaty. In meeting this challenge we have set out to explore the potential of applying participatory, monitoring and evaluation techniques to humanitarian mine action in three countries, Cambodia, Nicaragua and Mozambique. In each case field research was undertaken to assess:

- the general state of play in humanitarian mine action programmes and activities;
- the current provisions for victim assistance;
- the viability of utilizing participatory techniques.

Although this research programme is only at an early stage, the results of the pilot study are being published in the hope that our findings will encourage other organizations within the humanitarian mine action community to embrace and further the use of participatory methods in either programme implementation, or verification and monitoring of humanitarian mine action.

Notes

1. Steve Goose, ICBL Statement, Third Meeting of States Parties to the 1997 Mine Ban Treaty, Managua, Nicaragua, 19 September 2001.
2. Geneva International Centre for Humanitarian Demining (GICHD), *Report of the Meeting of the Standing Committee on Victim Assistance, Socio-Economic Reintegration and Mine Awareness*, Geneva: GICHD, May 2001, p. 2.
3. Ibid.

4. Statements made by landmine survivors at the Victim Assistance Session of the Third Meeting of the States Parties to the 1997 Mine Ban Treaty, Managua, Nicaragua, 20 September 2001.
5. These observations were made by Susan Walker, ICBL, interviewed in Geneva on 10 September 2001.
6. Article 4 requires signatories to destroy all stockpiled anti-personnel mines no later than four years after the entry into force of the treaty for that State party. Article 5 demands the destruction of anti-personnel mines in mined areas no later than ten years after entry into force of the treaty for a given State party.
7. The May 2001 meeting of the Standing Committee on Victim Assistance, Socio-Economic Reintegration and Mine Awareness observed the necessity for a more comprehensive view of the level of need for victim assistance. See note 2 above.
8. German Initiative to Ban Landmines, "*The Bad Honnef Framework*": *Mine Action Programmes from a Development-Oriented Point of View*, GIBL, 1999.
9. ICBL, "Victim Assistance: Contexts, Principles and Issues" in *Providing Assistance to Landmine Victims: A collection of guidelines, best practice and methodologies*, report compiled by the co-chairs of the Standing Committee on Victim Assistance, Socio-Economic Reintegration and Mine Awareness, May 2001.
10. Robin M. Coupland, *Assistance for victims of anti-personnel mines: needs, constraints and strategy*, Geneva: ICRC, 1997.
11. *Ibid.*, p. 1.
12. The Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, commonly referred to as the Mine Ban Treaty, was opened for signature on 3 December 1997 and entered into force on 1 March 1999. As of September 2001, 137 State parties have agreed to: demine all known minefields within ten years of entry into force; to destroy all stockpiles of mines, to provide mine awareness programmes and to deliver victim assistance.
13. ICBL, *Landmine Monitor Report 1999*, Washington, DC: ICBL, 2000.
14. O. Meier, "NGOs and verification: civil society monitoring and international institutions", paper presented at the 23rd ESARDA Annual Meeting: Symposium on Safeguards and Nuclear Material Management, 8-10 May 2001, Bruges, Belgium. For further details on CM&V see H. Muller and S. Wisotzki, "Verification: Between the

- Desirable and the Feasible", *UNIDIR NewsLetter*, No. 3, UNIDIR, Geneva: United Nations, October 1997.
15. See the Landmine Survivors Network web site for more information: www.landminesurvivors.org/.
 16. ICBL-WGVA and ISCE-VASERMA, *Portfolio of Victim Assistance Programs*, 2000, www.landminevap.org, p. 5.
 17. GIBL, "The Bad Honnef Framework": Mine Action Programmes from a Development-Oriented Point of View, GIBL, 1999.
 18. R. Muggah, "Participatory Research on Human Insecurity and Small Arms in South Asia", mimeograph, *Report on a workshop held in Sri Lanka*, June 2001, Geneva: Small Arms Survey, 2000.
 19. For details of participatory methodologies and practice see World Bank, *The World Bank Participation Sourcebook*, <http://www.worldbank.org/wbi/sourcebook/sb0003.htm>; UNDP, *Who Are the Question-makers? A Participatory Evaluation Handbook*, OESP Handbook Series, New York: UNDP, 1997; and M. Estrella and J. Goventa, "Who Counts Reality? Participatory Monitoring and Evaluation: a Literature Review", *IDS Working Paper 70*, August 1998.
 20. A. Cornwall, H. Lucas and K. Pasteur (eds.) "Accountability Through Participation", *IDS Bulletin*, Vol. 31, No. 1, January 2000.
 21. ICBL, *Landmine Monitor Report 2000*, p. 38.
 22. Cornwall, Lucas and Pasteur, loc. cit.

CHAPTER 1

PARTICIPATORY MONITORING AND EVALUATION OF HUMANITARIAN MINE ACTION IN NICARAGUA

Susan Willett

INTRODUCTION

Nicaragua signed the Mine Ban Treaty on 4 December 1997 and ratified it on 30 November 1998. The Treaty entered into force on 1 March 1999. On the first anniversary of the treaty signing, in a speech marking the creation of the National Demining Commission (CND), President Arnoldo Aleman stated:

We Nicaraguans have been witnesses to the devastating effects of anti-personnel landmines planted during the previous decade and that have caused severe and irreparable damage to many persons, in the majority civilians and sometimes children, that did not know the field of battle but that have been mutilated by this mortal artefact ... That is why its use, stockpiling and production has been prohibited by the Ottawa Treaty, that Nicaragua has signed and ratified.¹

The Nicaraguan Government has been an active supporter of the campaign to ban landmines from early on in the 1990s. Yet despite the Government's political will to eradicate the scourge of landmines, humanitarian mine action has made slow progress due to a combination of economic constraints and the effects of Hurricane Mitch. As a consequence, at the end of the 1990s at least 600,000 Nicaraguans or one out of every seven of the total population were still affected by the presence or suspected presence of mine areas.²

Given the very real resource constraints faced by the heavily indebted Government, donor support for humanitarian mine action is essential if

Nicaragua is to meet its obligations under the terms of the Ottawa Convention. In recent years accelerated assistance has made a tremendous difference to the pace of demining and stockpile destruction. Nevertheless victim assistance remains seriously under-resourced, with the consequence that hundreds of Nicaraguan landmine survivors and their families continue to suffer pain, indignity and socio-economic marginalization.

This investigation into existing provisions for victim assistance in Nicaragua forms part of a larger programme that is aimed at raising the profile of victim assistance needs via the use of participatory techniques which are designed to empower mine-affected communities vis-à-vis their governments and donors in defining their needs and priorities.

A country's ability to provide for victim assistance under article 6.3 of the Ottawa Convention is very much determined by its general level of development and wealth distribution, its capacity to provide social welfare and the buoyancy of its labour markets. In a war-torn and underdeveloped country such as Nicaragua, the ability to provide victim assistance is negligible. In such circumstances the onus is on those State parties to the Ottawa Convention who are in a position to do so to provide the necessary means to provide alleviation to the suffering experienced by landmine victims. This study aims to provide background information on Nicaragua's socio-economic situation, its progress on humanitarian mine action and insights into the current shortfalls in victim assistance provision.

The study has utilized a combination of desk and field research. A fact-finding trip to Nicaragua was undertaken between 17 and 28 September 2001, which was primarily designed to assess the existing provisions for victim assistance in Nicaragua. During the course of the field trip a number of organizations involved in humanitarian mine action were interviewed including: UNICEF, Handicap International (HI), the Organization of American States (OAS), CEI, Comisión Nacional de Desminado (CND), Falls Brook Centre (FBC), Comisión Conjunta de Discapitados por la Paz y la Reconstrucción de Madriz (CCDPRM). Further information was sought from the British Ambassador and the Department for International Development in Managua and from the GICHD adviser working on the Information Management System for Mine Action (IMSMA) Level One Survey. On 25 and 26 September 2001, a field trip was made with a representative of CEI to Somoto in the Department of Madriz where we visited the headquarters of CCDPRM and the Falls Brook Centre. We then

accompanied CCDPRM and Falls Brook Centre staff to a small village on the Honduran border called Pintadas to attend a community mine-awareness workshop. The object of the trip was to gain a better insight into the conditions confronting mine-affected communities on the northern border with Honduras.

BACKGROUND

Nicaragua is a small Central American country with a population of 4.9 million people and a land surface of 130 thousand square kilometres. It shares borders with Costa Rica to the south and Honduras to the north. In the last three decades Nicaragua has experienced a number of natural and man-made disasters, which have caused massive economic dislocation and huge political and social upheavals. The major destructive events include the 1972 earthquake that virtually destroyed the capital city Managua, the civil war between 1983-1990 and Hurricane Mitch in 1998. These events destroyed infrastructure, reduced productivity and substantially increased the levels of poverty of the most poor and vulnerable in society.

Chronology of Major Political Events and Natural Disasters

Somoza Regime	1930-1979
Managua Earthquake	1972
Sandinista Revolution	1979
United States Embargo	1983-1990
Civil War	1983-1990
Hurricane Joan	1988
Tidal Wave	1992
Volcanic Eruptions	1992, 1994
El Niño	1996-1998
Hurricane Mitch	1998

The population is predominantly Hispanic, but there are a number of ethnic minorities with different ethnic, linguistic and religious origins based mainly on the Costa Atlantica. These include the Suma, Rama and Misquito

Indians and a small English-speaking Afro-Caribbean population centred largely in the Atlantic ports of Bluefields and Puerto Cabeza. The national language is Spanish and most of the ethnic communities are conversant with it.

Nicaragua is one of the poorest countries in Latin America.³ In 1998 the World Bank estimated that its per capita gross national product (GNP) was US\$ 410. Average life expectancy at 68 is low, and infant mortality at 53 to every 1,000 live births is the highest in the region. At the current population growth rate of 3 per cent per annum the population will double within 23 years. Almost 50 per cent of the population live in poverty, this is equivalent to 2.3 million people of whom 830,000 (36 per cent) live in extreme poverty. Although between 1993-1998 poverty fell by 2.4 per cent and extreme poverty by 2.1 per cent, the absolute number of both poor and extremely poor rose during the same period due to the rising birth rate.

The highest concentration of poverty is to be found in the rural areas. About 70 per cent of the rural population are poor, compared to about 30 per cent for the urban population. The greatest concentration of extreme poverty is to be found in the Atlantic region. Table 1 below provides some socio-economic indicators.

The country is predominantly an agrarian-based society, with agricultural output accounting for roughly 50 per cent of Nicaragua's total exports and employing 43 per cent of the workforce. Despite the centrality of agriculture to Nicaragua's economy, basic foods such as rice are imported.⁴ This sharpens the vulnerability of certain sections of the poor to food shortages and the local currency's devaluation has made imported food more expensive. Food aid still constitutes an important means of survival for vulnerable communities during periods of "external shock."

With the end of the civil war and the onset of peace it was hoped that the Nicaraguan Government could use the peace dividend to improve social provisions for the poor. The Nicaraguan Government did downsize its military forces and substantially reoriented its spending away from "unproductive" defence expenditures. But the "peace dividend" of roughly 25 per cent of gross domestic product (GDP) was mainly spent on normalizing financial relations with international creditors and restoring macroeconomic stability by reducing the fiscal deficit. This meant that there were few resources available to increase social-sector spending, which

continued to decline on a per capita basis until 1997. Absolute per capita expenditures on social services (health and education) are below the regional averages and insufficient to provide a minimum level of quality service to the population.

Table 1: Nicaraguan Socio-Economic Indicators 1995-1999

Series	1995	1998	1999
Population (in millions)	4.5	4.8	4.9
Population growth (annual %)	2.8	2.6	2.6
GDP growth (annual %)	4.3	4.1	7.4
Total GNP per capita US\$	360	370	400
Total GDP at market prices (in billions of current US\$)	1.8	2.1	2.2
Inflation GDP deflator (annual %)	..	13	11
Life expectancy at birth	67.3	..	68.6
Foreign Direct Investment (in millions of current US\$)	75	184	300
Present value of debt (in billions of current US\$)	0.0	5.2	5.5
Total debt service (in millions of current US\$)	288.1	252.9	187.2
Aid per capita (current US\$)	147.3	119	137

Source: World Development Indicators, World Bank Database 2001.

Despite significant increases in economic growth during the 1990s and especially since 1998, the social and economic risks faced by Nicaragua's poor have increased. The replacement of a socialist State by a private-market economy may have opened greater prospects for growth and economic opportunity, but it has left the poorest with virtually no formal safety nets to protect them. And after the extensive social and economic upheavals of recent history, Nicaragua's informal safety nets have also been fractured.

Recent economic growth has been largely financed through foreign capital inflows. For instance, GDP growth improved significantly between 1998 and 1999 because of the amount of aid flowing into the country in response to humanitarian needs and investment in infrastructure following the destruction wrought by Hurricane Mitch.

While aid flows permitted high rates of investment they have had the effect of distorting public expenditures. This is because the high reliance on official aid flows has influenced government spending unduly in the direction of new investments, which has resulted in a serious underfunding of certain social expenditures such as health and education (see Table 2).

Table 2: Nicaraguan Public Expenditure Trends 1994-2000

	1994	1995	1996	1997	1998	1999	2000
	As % of central government expenditure						
Education	13.7	12.7	12.8	14.7	14.2	14.8	17.4
Health	13.6	13.4	12.8	11.7	10.8	12.5	15.9
Infrastructure	14.0	18.0	17.6	20.6	23.4	..	23.8
Defence and police	11.0	9.7	10.3	8.4	7.9	6.2	6.5
Debt service	27.7	25.1	21.2	26.5	25.0	17.1	14.2
	As share of GDP (%)						
Education	4.7	4.3	4.3	5.0	4.8	6.1	6.3
Health	4.7	4.5	4.3	4.0	3.7	5.1	5.7
Infrastructure	4.8	6.1	5.9	7.0	8.0	..	8.6
Defence and police	3.8	3.3	3.5	2.9	2.7	2.6	2.3
Debt service	9.6	8.6	7.1	9.0	8.5	7.0	5.2

Source: World Bank, 2001.

Total per capita recurrent public health spending was less than US\$ 16 per year during the 1990s. If public, private and donor expenditures on health care are added together per capita spending on health amounts to US\$ 37. The average per capita health spending for low-income countries is US\$ 41.⁵

Nicaragua's high level of debt is one of the major obstacles to an improvement in social-sector provision. In the early 1990s Nicaragua's debt reached US\$ 12 billion, roughly six times the value of its GDP. Significant debt reductions have been achieved through renegotiations and debt reduction deals so that by 1995, the overall external debt had been reduced by 50 per cent. However with a net present value of about 540 per cent of exports, Nicaragua's debt remains unsustainably high. As a result Nicaragua is one of four Latin American countries that are eligible for debt relief under the World Bank's Highly Indebted Poor Countries (HIPC) initiative.

The direct debt servicing savings from HIPC are expected to be US\$ 4 billion scheduled over 20 years or US\$ 215 million per annum.⁶ This represents roughly two thirds of the annual combined budgets of the health and education ministries. But it would be mistaken to hope that these debt savings could be used for improved health and social spending, as they will have to be used for debt servicing on deferred debt payments. Deferred payments were implemented in response to the Hurricane Mitch emergency and were terminated in December 2001. What the HIPC initiative does mean is that the Government will not have to make further cuts in health and education provisions, but this is little consolation for those in urgent need of care, such as landmine victims.

The low levels of domestic resources available to finance recurrent expenditures on the public health service mean that the country is highly dependent on donor aid. So far donor contributions have not helped to substantially improve public health-care provision to the poorest and most needy of Nicaragua's population, because the efficacy of resource use remains low.⁷

THE LANDMINE SITUATION IN NICARAGUA

Nicaragua was almost continuously at war between 1979 and 1989, which has left a devastating legacy of infrastructural destruction and underdevelopment. Some of the poorest and most deprived communities in Nicaragua continue to suffer the legacies of war due to the continuing presence of landmines. The Nicaraguan Government has estimated that 135,643 anti-personnel mines and anti-tank mines were laid in the country during the 1979-1990 internal conflicts.⁸ Some researchers have suggested that this figure is an underestimate, as it does not include the mines laid by

the Contras, which are estimated to be at least another 15,000.⁹ In addition to the presence of anti-personnel mines, a large quantity of unexploded ordnance (UXO) such as fragmentation grenades, mortars and ammunition was left scattered around areas of combat.¹⁰

The majority of the mines used were manufactured outside the region, but some improvised explosive devices were also used by armed insurgent groups. In some cases, minefields were recorded with varying degrees of accuracy and detail but often, they were neither marked nor documented. Mines were placed around military and economic facilities, including telecommunications installations, power lines and bridges, as well as along trails and roads.¹¹ To compound the problems, when Hurricane Mitch swept through Nicaragua with devastating effect in 1998, it dislodged many of the landmines that had been painstakingly mapped by the Nicaraguan Army.

Concentrations of mines are still to be found in the departments of Matagalpa, Madriz, Jinotega, Nueva Segovia, Esteli, Chontales, Boaco, Rio San Juan, Chinandega, Zelaya Norte and Zelaya Sur. UXO also pose a problem. In many of the affected rural areas, the local population has been unable to re-establish normal patterns of life as large tracts of agricultural land remain unusable, placing an added economic burden on these areas and leaving entire communities isolated and economically depressed. However, even with the increased risk of living and working in or near minefields, the pressures of poverty and lack of alternatives have forced many people to remain in these zones. The danger to the physical well-being of the people in these areas, as well as the impediment that anti-personnel mines pose to economic recovery, have made their elimination an urgent humanitarian task.

Mine Action Coordination

The Nicaraguan Government has taken an active and central role in national demining activities in Nicaragua since the early 1990s. It has also been highly proactive in the international campaign to ban landmines.

International Actions

In July 1995 the Government announced its support for an immediate and comprehensive ban on anti-personnel landmines at the United Nations conference on mine clearance. In September 1996 it supported a regional

initiative to create a mine-free zone in Central America. It was a full participant in the Oslo negotiations in September 1997 and has supported the pro-ban resolutions of the Organization of American States (OAS). Nicaragua signed the Mine Ban Treaty on 4 December 1997 and ratified it on 30 November 1998. The Treaty entered into force on 1 May 1999 and national implementation legislation was signed into law on 7 December 1999, which stipulated penal sanctions for violations of the law.¹²

Nicaragua participated in the First State Parties Meeting in Maputo in May 1999 and since then has been the co-chair of the Standing Committee on Experts on Victim Assistance. In September 2001 Nicaragua hosted the Third States Parties Meeting (TSPM) in Managua.

National Coordination

The Government established CND in November 1998, as the main body responsible for coordinating national mine action efforts. Almost from the outset it was severely criticized for its lack of efficacy.¹³ The organization has been accused of being too bureaucratic and dominated by mine clearance concerns of the military, to the exclusion of almost every other aspect of humanitarian mine action. A United Nations report intimated that "Mine action in Nicaragua is characterised by a continued emphasis on mine clearance, whereas the other components such as mine awareness education, victim assistance receive comparatively less attention."¹⁴ The report continued: "Other aspects that have been repeatedly criticised include: the limited role for non-government agencies and for civil society, insufficient consultation with communities, and emphasis on the number of mines removed as a criterion for progress as opposed to the enhancement of living conditions for mine-affected communities."¹⁵

In response to these criticisms the government has attempted to revitalise CND with the appointment of a new Secretary-General, Deputy Minister of Defence, Maria Auxiliadora Cuadra de Frech. She set about restructuring the organization by setting up three subcommittees to oversee mine action including stockpile destruction and mine clearance, victim assistance and rehabilitation, and education, prevention and minefield signalling. The subcommittee members include the Ministries of Defence, Foreign Affairs, Health, Education and Culture, Family Governance, Agriculture and Forestry, Transport and Infrastructure, Environment and Natural Resources, the Nicaraguan Institute of Social Security, the Army, the Joint Commission of the Disabled for Peace and Reconstruction of

Madriz, CEI, the Centro de Estudios Estratégicos de Nicaragua (CEEN), MOVIMUNDO, INATEC, the Marshall Legacy Institute, Walking Unidos, the Nicaraguan Red Cross, ICRC, OAS, UNICEF and the Pan-American Health Organization (PAHO).

In January 2001 the Minister of Defence, Jose Adan Guerra, was reported to confirm a "change of course" for CND, adding that he wanted to "convert the CND into an institution whose mission and vision would go beyond strictly military components and tasks, and make it an institution inspired by Nicaragua's humanitarian commitment to prevention and victim assistance projects as well as social and economic reintegration thereby making the individual and community the focus of demining."¹⁶

The implementation of tangible changes in the priorities of CND has still to materialize. Delays are partly attributable to the elections of November 2001 but can also be attributable to government inertia, lack of conviction and of course resource constraints.

Non-government organizations on CND, such as HI and UNICEF are attempting to raise the profile of victim assistance and socio-economic integration.¹⁷ By broaching the issue with the current donor group that provides assistance for the National Demining Plan they hope to pressure the Nicaraguan Government to be more proactive in these areas.

CND is clearly not providing across-the-board coordination of all aspects of humanitarian mine action that had been hoped for. This need not prevent greater coordination at a bilateral level between national players.

Inter-Agency Coordination

Efforts at inter-agency coordination are being made in the area of mine awareness. UNICEF has for example, teamed up with OAS to develop a national mine awareness programme. So far, however, CCDPRM which conducts mine awareness in Madriz and Nuevo Segovia, has been excluded from this initiative, despite the fact that it has, by far, the best local networks in the most highly mined municipalities in the country.

One of the reasons why UNICEF is probably working with OAS as opposed to CCDPRM is the difference in organizational levels. Although CCDPRM is very capable, the organization does not have an organizational

capacity equivalent to UNICEF or OAS. Currently the staff consists of one full-time organizer, a secretary, a part-time assistant, and a couple of dozen volunteers for awareness meetings, etc. What it does have, however, are close links to the mine-affected communities in the border regions of the north and an ability to collect data and information that the formal methods deployed by outsider organizations can rarely capture. Outreach, connections and provision of support for landmine survivor organizations such as CCDPRM are crucial if victim assistance and associated services are to be delivered in the north.

MINE ACTION PROGRAMMES

Demining

Once hostilities had ceased and conscious of the need to re-establish infrastructure and agricultural production as quickly as possible, the Nicaraguan Government initiated a demining programme in 1989.¹⁸ However, lack of resources and expertise led the Government to seek external support and advice. In 1990 the Nicaraguan Government approached OAS to evaluate the mine situation in Nicaragua. OAS responded to Nicaragua's request by putting together a team of experts from the Inter-American Defense Board (IADB) to oversee the task of planning a demining programme.

OAS Mine Action Activities

OAS had become engaged in mine action following requests for assistance from a number of Central American countries in the early 1990s. Under a series of mandates from the OAS General Assembly, the Unit for the Promotion of Democracy of the OAS General Secretariat assumed overall responsibility for demining activities, which became known as the Assistance Program for Demining in Central America (PADCA). Since PADCA has been initiated, the programme has developed from one that focused primarily on mine clearance into a comprehensive, multifaceted humanitarian mine action effort, including mine awareness and victim assistance programmes and the socio-economic reclamation of demined zones.

The OAS assistance programme provided Nicaragua with a planning system that included budgetary estimates, and identified the resource requirements for each specified task and the time period required. This approach has ensured both effective and transparent use of funds provided by donors and has helped to maximise the efficiency of mine action activities in Nicaragua.

The OAS programme has also provided a significant amount of the equipment and logistical support. Technical equipment, including mine detectors, protective clothing and other specialized items, is provided to permit the safe detection and destruction of landmines and to give the national deminers the confidence necessary to carry out their tasks.

Nicaragua's demining operations were relaunched in 1993, following the formation of the Special Demining Units (UEDs) under the supervision of the Mission of Assistance for the Removal of Mines in Central America (MARMINCA), a division of OAS. However, the programme continued to face a shortage of funds and was suspended yet again.

The Nicaraguan Government put forward a renewed request for funding at a United Nations conference in Geneva in 1994. It received funding and support in kind from a broad spectrum of donors including Argentina, Australia, Canada, Denmark, Germany, Japan, the Netherlands, the Russian Federation, Spain, Sweden, the United Kingdom and the United States. A number of NGOs also offered assistance in demining, including the Programa de Barreminas Ligeras, ICRC, CEEN and MOVIMONDO from Italy. During this time, the UEDs grew to 400 men who destroyed 33,783 mines and cleared 1,142,422 square metres. MARMINCA also began certifying Nicaraguan military personnel to oversee demining operations.

The Nicaraguan army's demining process suffered another major setback in 1998 with the advent of Hurricane Mitch. Mudslides, flooding and river torrents relocated many mines, making existing data and landmine mapping unreliable. Despite this setback the Government reported that the clearance of mines along 96 kilometres of the southern border with Costa Rica had been completed by April 2001. The southern border has subsequently been declared the first mine-free zone in Nicaragua. According to the Government's article 7 report of April 2001, 70,769 mines

were still in the ground located in 369 areas along the northern border, and in 39 other sites inside Nicaragua.

The 1999 National Demining Plan invited donors to contribute US\$ 27 million to support the Nicaraguan Government's demining objectives. According to the *Landmine Monitor Report 2000*, donors contributed the following amounts to demining operations.

Table 3: Donor Contributions to the National Demining Plan

Donor	Amount (US\$)	Period
Denmark	6.8 million	2000-2004
Sweden	5 million	2000-2004
Canada	2 million	2000-2001
Norway	2 million	2000-2001
United States	2.5 million	2000-2002
United Kingdom	2.5 million	2003-2004

These funds fall short of the US\$ 27 million required to complete the Nicaraguan Army's demining and stockpile destruction efforts. A report by the Nicaraguan Army Engineers Corps to CND claimed that Nicaragua's targets for demining and stockpile destruction for 2004 could not be guaranteed if donors failed to provide the required resources.²⁰

Stockpile Destruction

At the beginning of 1999 the Nicaraguan military had a stockpile of 136,813 landmines.²¹ Between April 1999 and June 2001 the army destroyed 70,000 anti-personnel mines. A further 20,000 were destroyed on 17 September witnessed by international delegates to the TSPM. A stockpile of 46,813 mines remains, which the Government plans to destroy by December 2002.²² The Government has stated its intention to retain 1,971 anti-personnel mines for training purposes. Mine clearance is scheduled for completion by the year 2004.²³ However, actors in Nicaragua are sceptical that this deadline will be met.²⁴

Victim Assistance

Currently, there is no reliable information on the number of landmine victims in Nicaragua, which makes planning and provision for victim assistance highly problematic. In an attempt to rectify this situation CND has initiated a Level One Survey, utilizing the Information Management System for Mine Action (IMSMA).²⁵

The methodology developed for IMSMA has been standardized by GICHD. Its main function is to provide statistical and graphical data on minefields and mine incidents to help in the planning of demining operations. They have produced a form, which has a checklist to be filled out by mine victims, when they arrive at hospitals or clinics. The form provides details about the time and place of the accident and the nature of mine injuries. The information is passed on to the National Demining Centre in Managua which enters it into the database once the information is verified. So far the form is only used in ICRC clinics and has not yet been introduced in Nicaraguan hospitals. Therefore it has only very limited ability to capture all mine accidents. Being in the early stages of development, the IMSMA data collected on mine victims are so far incomplete. Table 4 below records only those accidents recorded by the IMSMA system and is by no means a complete picture.

Other sources of data on mine accidents include the Assistance Programme for Demining in Central America (PADCA/OAS) database, which recorded 23 mine casualties between 2000 and June 2001, involving 12 civilians and 11 military personnel.²⁶ A Nicaraguan Army report made available to the *Landmine Monitor* recorded 31 mine casualties in 1999, including 11 deaths and 20 injuries. A United Nations estimate claims that landmines have injured 1,500 people since 1990.²⁷ This figure does not include fatalities. The United Nations records suggest that the number of mine injuries and fatalities have been declining to an average of about 10 per year. CEI has suggested that "It is also possible that some mine victims are not registered."²⁸ This is most likely to apply to fatal injuries, where victims do not arrive at medical clinics. The IMSMA database is trying to standardize data gathering on victims, as there appears to be no methodological consistency or coherence with the existing sources of information on mine injuries and fatalities.

Table 4: Victims per Injury and Province, 1982-2001

Province	Fatal	Injury	Unspecified
Chinandega	2	24	
Chontales	2	17	
Esteli	-	1	
Jinotega	3	77	
Leon	-	2	
Madriz	-	9	1
Managua	-	9	1
Matagalpa	2	52	
Nueva Segovia	8	98	5
RAAN	2	29	1
RAAS	3	24	1
Rivas	1	-	
Rio San Juan	2	-	1
TOTAL	25	245	10

It is clear from the widely diverging figures presented above that there is still a paucity of reliable information on mine accidents in Nicaragua. In the light of this hiatus OAS/PADCA and the Nicaraguan Army have declared their intention to conduct a census of mine victims in order to gather information on the number of victims, place of residence, location of incidents and the assistance received.²⁹

Victim Assistance Programmes

The general lack of data and information on mine victims represents a major impediment to the planning and development of victim assistance programmes in Nicaragua, which up to now have been poorly provided for.³⁰ Victim assistance includes the care and rehabilitation for the immediate and long-term needs of mine victims, their families and mine-

affected communities. For individual survivors this means emergency and continuing medical care, physical rehabilitation treatment, the provision of prostheses, psychological and social support, and employment and economic integration programmes. In addition, victim assistance may include programmes, which ensure that socio-economic needs of affected communities are met in the broader context of repatriation, rehabilitation and development strategies.³¹

Prosthesis

There appears to be an adequate supply of prostheses, although accessibility to centres that provide prostheses in rural areas is hampered by distance and inadequate roads and transport systems.³² While supply is adequate, a continuing problem in Nicaragua is the affordability of prostheses for victims. Many landmine survivors just cannot afford the replacement costs. There are schemes to supply charitable assistance but more often than not landmine survivors in remote rural areas are not aware of this provision.

Welfare Entitlements

With limited fiscal resources the Nicaraguan Government is severely constrained in its ability to provide for victim assistance. Civilian mine victims receive no social welfare entitlements under existing provisions. Military deminers, on the other hand, do receive some compensation if injured while conducting mine clearance. Compensation is graded according to the severity of injuries sustained. For the most part the only means the Government has of providing across-the-board victim's assistance is to rely on external support.

Rehabilitation

The Nicaraguan Government has instigated a rehabilitation plan for the disabled, including landmine survivors. However implementation of the plan leaves much to be desired. Links to local community organizations and their beneficiaries are limited, with little permeation of rural areas, especially the border regions where most of the mine-affected communities are located. In arguing for better coordination William Boyce has noted that a "multi-sectoral approach (Health, Education, Labor and Defense) is required to implement the national rehabilitation plan for more effective coordination of non-governmental organizations, government funded institutions and disabled people organizations."³³ In practice, however, the realisation of the rehabilitation plan is constrained by a shortage of trained

personnel, a lack of resources and the Government's proclivity towards urban areas.

Socio-Economic Reintegration

As with the rehabilitation plan, government initiatives for the socio-economic reintegration of all disabled peoples (including landmine survivors) are constrained by the lack of available resources. The handful of programmes that do exist have been initiated by NGOs and external agencies. According to Nicaragua's article 7, form J, reports on survivor assistance, funding is provided by the following organizations:

Organization	Funding (US\$)	Period	Nature of support
Handicap International	1.3 million	2000-2003	Support for one orthopaedic centre and four physiotherapy services based in Trinidad near Esteli
OAS Landmine and Victim Assistance Organization	275,000	2001-2002	Provides assistance to mine victims with transportation to rehabilitation centre, lodging, prostheses, therapy and medication
Pan-American Health Organization	750,000	1999-2004	Rural rehabilitation services, long term sustainable community-based rehabilitation programmes, regional prosthetic and orthoptic development and socio-economic reintegration of landmine victims
Polus Centre for Social and Economic Development	120,000 per annum	n/a	Prosthetic outreach programme in Leon
Falls Brook Centre	206,000	n/a	Provides landmine victims with prostheses and training in solar electrification to enable them to install and maintain village level solar energy systems

Even with these initiatives there appears to be a bias towards urban areas that are often at some distance from the border regions where most of the mine-affected communities are based. CCDPRM, one of the few local organizations to operate in the northern border region, is highly under-resourced and its efforts are frustrated by a lack of concern in Managua and a lack of responsiveness from large international organizations that it has approached for support and collaboration. Its only source of funding comes from small donations from Canadian and German NGOs who are committed to the idea of supporting local ownership and empowerment in humanitarian mine action. In general the practice of empowerment and local ownership of humanitarian mine action is noticeably absent in Nicaragua, despite the fact that this was a major theme of the TSPM of the Mine Ban Treaty held in Managua in September 2001.

A CASE OF NEGLECT: SOMOTO, MADRIZ

Madriz is one of the poorest departments in the country. The majority of people in Madriz live on less than US\$ 1 a day. The high levels of poverty were compounded by a severe drought in 2001, an uncommon event in a tropical climate. The failure of the seasonal rains in May led to a three-month delay in crop planting and to severe food shortages in the impoverished mountain communities. During the 1982-1989 civil war, the area experienced some of the heaviest combat so that in addition to the presence of mines, there is the added problem of the presence of UXO.

The general poverty and deprivation experienced by the people of Madriz has been compounded by the presence of mines which affects the safety and security of a local population predominantly composed of subsistence farmers. Even in those border villages not directly affected by the presence of minefields, community members face risks to their security when they travel across the Honduran border, which they regularly do to access the nearest markets.

The persistent presence of mines in what was previously arable land and the slowness of the national demining process have encouraged some peasants to conduct their own demining operations. Certain individuals hire out their services to *campesinos* to demine their fields despite the fact that they have had no formal training in demining and expose themselves to very high and sometimes fatal risks.³⁴

In addition, to the everyday threats to security posed by the presence of mines and UXO for the border communities, there is a lack of accessible medical facilities and a paucity of victim assistance, particularly for long-term support and socio-economic integration.³⁵ Villages along the border are often two hours or more by car along tortuous rock-strewn potholed tracks from the nearest small towns with basic medical facilities. However, few if any *campesinos* have access to motorized transport. The majority rely upon the horse and donkey to get around. For instance a journey by horse from Pintadas, a tiny border village, to Somoto, the nearest town with a Nicaraguan Red Cross ambulance facility, takes at least four to five hours. Somoto is a further hour by car to Esteli, where the nearest hospital with surgical facilities exists.

In terms of victim assistance OAS provides initial short-term support, i.e. medical treatment, physiotherapy and prostheses. This service is excellent, but it does not appear to be followed through with longer-term support.³⁶ People in the region are extremely poor and often make do with prostheses for years, even when they are damaged or causing them considerable discomfort, as few landmine survivors have the funds to be able to replace them. And few are aware that they may be able to get charitable support. These problems may arise because of misapprehensions, lack of communication between OAS and the remote mine-affected communities and the problems of access to rehabilitation centres.

The majority of accidents occur to *campesinos* whose disabilities greatly reduce their ability to tend the land upon which they survive. Alternative means of employment are essential for many of these *campesinos* if they are not to become a burden on their families and communities. Yet the existence of socio-economic reintegration and victim assistance programmes appears to be negligible in this region. A 2001 GICHD review of the assistance to mine victims in Nicaragua concluded that "the efforts being made to set up programmes to promote the social and economic reintegration of those in need are grossly inadequate."³⁷ The problem is particularly acute along the Honduran border where the highest concentration of mines and mine victims exists.

A Victim's Tale

A young *campesino* made a statement at a mine awareness workshop in the small mountain village of Pintadas on the Honduran border. He had just lost half of his hand while cleaning one of his fields with a machete. He was unable to work in his fields while his hand was healing. His farm is his only means of survival. He and his young family receive no support during this difficult and painful period of adjustment. Moreover, he is fearful of returning to his fields, which he had previously thought clean of mines. Yet he knows he has no option if he and his family are to survive. What are he and his family to do?

Pintadas, Nicaragua, September 2001

A Local Initiative

CCDPRM, based in Somoto, is one of the only organizations working in the border region trying to provide support to mine-affected communities, yet it is under-resourced and overstretched. Uriel Carazo, who runs CCDPRM, himself a landmine survivor, has been selected for the *Raising the Voices* campaign initiated by the Land Mine Survivors Network (LSN). He takes part in many national and international humanitarian landmine forums where he is exposed to a rhetoric of sympathy for victim assistance, but as he has observed there is "lots of talk about victim assistance but little action."

CCDPRM runs mine awareness programmes in Madriz and parts of neighbouring Nuevo Segovia. This is largely a voluntary effort on the part of those that run the courses most of whom are landmine survivors or family members that have lost loved ones to landmines. They visit the remote communities in the mountains along the Honduran border trying to raise awareness among children and adults to help prevent the sort of accidents that have happened to them. As a result of CCDPRM's efforts mine awareness has been delivered in seven municipalities of Madriz to approximately 4,000 people.³⁸

CCDPRM also works as a channel and facilitator to get people to appropriate medical services. In some cases transportation and funds for

food are provided to the survivors by the Nicaraguan Red Cross to allow them to make the trip from Somoto. However, funds are not provided for them to get from wherever they live to Somoto, and although small this is an expense that many cannot afford. So some funds from the CCDPRM project go to facilitate transportation or to provide for other medical needs that can be provided from the local hospital or clinic, creams for rashes etc. The ability to function as a local channel/facilitator is one of the great strengths of CCDPRM. A large part of this is having means to communicate with people living in remote communities. Uriel and his volunteers are local people and thus understand the local networks and means of communication. Messages are often sent with people who have come into Somoto for supplies and they even use the local *campesino* radio to inform people that CCDPRM has a message for so and so in such and such a community.

No other organization in the area is doing this valiant and essential work—yet they have so few resources with which to carry out their programme. CCDPRM has received support and materials from CEEN. A small Canadian NGO, the Falls Brook Centre, has assisted with funds for planning and administrating the landmine education, transportation, food for meetings, extra resources for the team of thirty landmine awareness educators, and with a small per diem for the educators who often have to miss a day of harvesting or work to hold their meetings.

One of the problems that a local self-help organization like CCDPRM faces is that few people have the know-how to be able to put together funding proposals and write reports in the format and sophistication expected by donors and other funders. Yet if local ownership, empowerment and sustainability are to genuinely take place, funders and donors need to address this problem. For it is a problem which has its roots in the fundamental inequities that exist between the developed and the developing world.

Socio-Economic Reintegration³⁹

The Falls Brook Centre in partnership with Fenix Madriz and CCDPRM has successfully completed a two-year Nicaragua landmine survivor project based in Somoto. The project was small scale, receiving funding of only Can\$ 250,000 from the Canadian Institute for Development Assistance

(CIDA) between May 1999 and May 2001. With these means the Falls Brook Centre has:

- trained 30 landmine survivors in landmine awareness education (how to be educators themselves);
- trained 25 landmine survivors in solar energy capacitation;
- employed 6 landmine survivors full-time with project activities (with funds from other donations and small project funds, sales of solar panels, and pay for teaching workshops and solar energy classes);
- employed 5 additional landmine survivors part-time (due to lack of funds);
- trained 1 landmine survivor in the construction of efficient wood-burning stoves, who is now working with other organizations in the region;
- trained 1 landmine survivor in community reforestation, who is now working with the mayor and two local organizations to maintain his project;
- funded two years of secondary schooling for 3 landmine survivors.

The wood-burning stove project is a new initiative designed to reduce the high levels of deforestation and incidence of smoke-related respiratory problems in women and children. The stoves are very cost-efficient and save the families time from collecting wood or buying it if there is none to be found. This is a project that the Falls Brook Centre would like to be able to expand if resources were made available.

On top of the training and employment opportunities, the Falls Brook Centre project has also provided:

- solar electrification in 40 communities (for Red Cross emergency radio communication systems, in health and community centres, schools and community houses);
- solar ovens for 30 families;
- twenty efficient wood-burning stoves.

One of the greatest successes of the solar energy project is that the core and majority of Fenix Madriz are made up of landmine survivors. They have an organization to represent themselves and they are deciding what they want to do and where they want to see themselves in the future. One of the roles of the Falls Brook Centre has been to help them develop an

organizational structure, to promote themselves and build up the capacity to write funding proposals. There is a lot of room for improvement but they have come a long way.

Solar Baby

Nestled in the hills of northern Nicaragua lies the small community of El Jobo. Late on 23 November a young woman from El Jobo prematurely went into labour. Unable to travel the winding gravel trail to the nearest health clinic in the darkness, the young mother-to-be was brought to the only building in the community with electricity. Local women assisted the delivery, which proceeded without complications. The first light the baby girl saw was solar.

Two weeks prior to the birth, members of Fenix Madriz and the Falls Brook Centre installed a solar energy system in a small community *Casa Base* (Community Base House) in Totogalpa, Nicaragua. The community solar installation was part of the Creating New Energy Building the Future Project, an initiative that provides training in the design, fabrication, installation, and maintenance of solar energy systems to landmine survivors. Base Houses like the one in El Jobo exist in communities where there are no community facilities and function as all-purpose community centres for community meetings, health, agriculture, and education workshops, adult (literacy) education, cultural events, community celebrations, community emergencies and impromptu births. Because there are those who can't wait to open their eyes.

FBC 2001

The Falls Brook Centre has applied for a follow-up project that would transform the solar development training initiative into a microenterprise support initiative. Unfortunately it has not received funding for this project. There are several reasons for this. The first being that while the Falls Brook Centre's focus for landmine survivor socio-economic reintegration has been on solar-energy capacitating, the Nicaragua CIDA representative and the Canadian Embassy are currently focused on a rural electrification strategy

provided by foreign companies. In short they do not believe that rural solar electrification is effective for Nicaragua's developmental reality. Secondly, the Falls Brook Centre's refunding application coincided with the end of the funding cycle of the Department of Foreign Affairs and International Trade (DFAIT), so there were no further resources available.

Donor funding cycles present a very real problem for the sustainability of programmes such as that run by the Falls Brook Centre. This is more than a travesty in Nicaragua where the Falls Brook Centre programme represents one of the only practical socio-economic reintegration programmes in the country that provides training and employment opportunities for disabled landmine survivors.⁴⁰ The sustainability of programmes so that donors and beneficiaries can maximize the benefits of socio-economic reintegration programmes, is essential if victim assistance is going to make a real difference to landmine survivors' lives.

The purpose of highlighting the experience of landmine survivors at the community level in Madriz, Nicaragua, is to illustrate the continuing challenges that the landmine community faces in implementing the Ottawa Convention. All too often the needs of mine-affected communities are overlooked because their voices are not heard. Much could improve in programme delivery and thus Treaty implementation if genuine consultation between programme planners and evaluators was to take place.

CONCLUSION

The Bad Honnef Guidelines remind us that "As much as any human being, mine-affected people and communities have the right to shape their own lives and to participate in political and economic decision-making which concerns their interests. The implementation of the humanitarian action in a spirit of solidarity designed to promote autonomy rather than creating new dependencies is crucial."⁴¹

Reflecting the spirit of the Bad Honnef Guidelines, analysts at the International Peace Research Institute of Oslo (PRIO), have consistently argued that in order to improve the effectiveness of assistance there needs to be a deeper understanding of the situation faced by people living in mine-affected communities with a particular need for community level field

research.⁴² This may seem like stating the obvious to programme implementers that regularly conduct fieldwork and utilize participatory methods to define programme goals and objectives. However, in the majority of cases in humanitarian mine action planning this is not the case. Donor assisted mine action is, more often than not, delivered through an infusion of external management, and funds and technology controlled from distant places. Top-down mine action targets are predicated on the logical framework approach,⁴³ which sets targets without reference to the needs and priorities of the mine-affected community. This dominating behaviour produces a donor-recipient relationship of control and dependency which undermines the possibility of mine-affected communities becoming active participants engaged in making, shaping, monitoring and evaluating humanitarian mine action policy.

If the Bad Honnef Guidelines are to be implemented, the challenge facing the mine action community is to move beyond the rhetoric of participation in order to create an operational environment that *empowers stakeholders* in both the implementation, monitoring and verification of the aims and objectives of the Mine Ban Convention.

One way in which the needs of mine-affected communities could be better assessed is through the use of participatory techniques in programme implementation and evaluation. Participatory techniques are not new to the Nicaraguan context. In fact the country has enjoyed a rich tradition of participation since the end of the Somoza regime in 1979. The Sandinistas employed such techniques in the national literacy campaign (alphabetization), which they launched in 1980, using Paolo Friere's techniques of "consciousness-raising." This set a precedent for the use of such methodologies in a wide range of contexts in Nicaragua.

The UNICEF office in Nicaragua has recently initiated a new child-to-child mine-awareness programme that uses participatory methods, following criticisms of the cultural unsuitability of its earlier campaign that used materials depicting American comic book heroes Superman and Wonderwoman. A number of local NGOs associated with humanitarian mine action currently use participatory techniques, although they have not, so far, applied them to their mine action projects. CEI which specializes in peace and reconciliation work with ex-combatants regularly uses participatory techniques in its reconciliation workshops to great effect.⁴⁴ International NGOs have also used such methods in programme

formulation and implementation. For instance HI has instigated a highly successful participatory programme (non-mine related) in an impoverished community in Tipitapa.⁴⁵ The success of the HI participatory programme can be measured in the community's break with dependency to form highly motivated groups that have set about defining their needs, raising resources and transforming many aspects of their everyday lives. But the application of participatory methods to humanitarian mine action has been slow to catch on. Both CEI and HI confirmed that the use of participatory techniques in mine-affected communities in Nicaragua would be highly beneficial in empowering victims and meeting their urgent needs.

Notes

1. Speech, "Firma del Decreto Creador de la Comisión Nacional de Desminado," 4 December 1998. Quoted in ICBL, *Landmine Monitor Report 1999*, Washington, DC: ICBL, 2000, pp. 264-265.
2. Figures from the Centro de Estudios Internacionales (CEI) quoted in *ibid.*, p. 268.
3. For details of Nicaragua's socio-economic situation see World Bank, "Nicaragua—Poverty Reduction and Local Development Project," Project Information Document 9626, World Bank, 30 March 2001.
4. Nicaragua is capable of producing far more rice, but under current trade liberalization agreements the United States is able to sell cheap rice on the Nicaraguan market, which has caused many local rice growers to go out of business.
5. World Bank, *World Bank Development Indicators 1999*, www.worldbank.org/data/countrydata/countrydata.html.
6. World Bank, "Nicaragua Poverty Assessment: Challenges and Opportunities for Poverty Reduction", Vol. 1, Main Report, Report No. 20488-NI, Washington, DC: World Bank, 21 February 2001, p. 8.
7. *Ibid.*, p. 38.
8. Article 7 report, "Introduction" and "Form F", 7 May 2001, <http://domino.un.org/MineBan.nsf/>.
9. CEI, *Las Minas Antipersonales en Nicaragua: Tercer Informe Independiente*, www.ceinicaragua.org.ni.
10. United Nations, Portfolio of Mine-related Projects, Country Programme: Nicaragua, <http://www.un.org/Depts/dpko/mine/Portfolio.PDF>, p. 184.

11. J. Perales and C. Case, "Organization of American States Mine Action Program", *Journal of Mine Action*, version 5.2, July 2001, <http://maic.jmu.edu/journal/5.2/focus/jamieperales.htm>.
12. Law for the Prohibition of Production, Purchase, Sale, Import, Export, Transit, Use and Possession of Antipersonnel Landmines, Law No. 321, published in the *Official Gazette*, Managua: Government of Nicaragua, 12 January 2000.
13. ICBL, *Landmine Monitor Report 2000*, Washington, DC: ICBL, 2001, p. 287.
14. Portfolio of Mine-related Projects, p. 185. See note 10 above.
15. Ibid.
16. Taken from CEI, *Las Minas Antipersonales en Nicaragua: Tercer Informe Independiente*, p. 62.
17. Interview with UNICEF representative, United Nations offices, Managua, 27 September 2001.
18. Much of the information in this section has been taken from E. B. Adams, "The History of Demining in Nicaragua", *Landmines in Latin America*, version 5.2, July 2001, <http://maic.jmu.edu/journal/5.2/focus/nicaragua.htm>.
19. ICBL, *Landmine Monitor Report 2000*, pp. 284-285.
20. Army Engineers Corps, Report on Compliance with the National Humanitarian Demining Program for the Year 2000 and Work Plans for 2001, for the CND subcommittee on stockpile destruction and mine clearance, 29 January 2001. Quoted in CEI, *Las Minas Antipersonales en Nicaragua: Tercer Informe Independiente*, p. 60.
21. ICBL, *Landmine Monitor Report 2000*, p. 282.
22. Article 7 report, "Introduction".
23. For more details on Nicaragua's demining progress and organizational structures, see CEI, *Las Minas Antipersonales en Nicaragua : Tercer Informe Independiente*, and also Nicaragua's article 7 report.
24. Portfolio of Mine-related Projects, p. 185. See note 10 above.
25. For more information on IMSMA, see www.gichd.ch/pdf/proj_summ_imsma1.pdf.
26. CEI, *Las Minas Antipersonales en Nicaragua: Tercer Informe Independiente*, p. 68.
27. Portfolio of Mine-related Projects, p. 185. See note 10 above.
28. CEI, *Las Minas Antipersonales en Nicaragua: Tercer Informe Independiente*, p. 67.
29. Article 7 report, "Form I".

30. A. D'Angelo and S. Cansino, *An Operational Review of the Role of Mine Action in Assistance to Mine and Unexploded Ordnance Victims: The Case of Nicaragua*, Geneva: GICHD, 20 April 2001.
31. See ICBL, "Victim Assistance: Contexts, Principles and Issues", in *Providing Assistance to Landmine Victims: A collection of guidelines, best practice and methodologies*, compiled by the co-chairs of the Standing Committee on Victim Assistance, Socio-Economic Reintegration and Mine Awareness, Washington, DC, May 2001.
32. W. Boyce, "Central American Landmine Survivors: The Need for Action in Nicaragua", *Journal of Mine Action*, version 4.2, June 2000, <http://maic.jmu.edu/journal/4.2/Features/Nicaragua/nicaragua.htm>.
33. Ibid.
34. Interview with UNICEF representative, United Nations office, Managua, 27 September 2001.
35. Interview with Uriel Carazo, CCDPRM, Somoto, 26 September 2001, confirmed by correspondence with the Falls Brook Centre, 9 October 2001.
36. Interview with teacher at Pintadas School who is a landmine survivor and in urgent need of a replacement for his prosthesis for which he has been told that he will have to pay.
37. A. D'Angelo and S. Cansino, op. cit., p. 21.
38. Correspondence with Peter Sundberg from the Falls Brook Centre, Somoto, Nicaragua, 9 October 2001.
39. The information in the following section was supplied by correspondence from the Falls Brook Centre, Somoto, Nicaragua, 9 October 2001.
40. There has been much talk of another socio-economic integration programme coming out of the Tripartite Initiative—through PAHO and Queen's University. But they appear to have had a hard time getting anything practical off the ground. They were planning to work through INATEC (a government technical training school)—which has limited outreach in the north where most of the landmine victims are located.
41. The Bad Honnef Guidelines were elaborated and adopted at the First International Conference of Experts in Bad Honnef, on 23-24 June 1997. They were reconfirmed and adopted at the ICBL NGO Forum on Landmines in September 1997.
42. K. Harpviken and A. Millard, "Studying Mine-Affected Communities: A Preliminary Framework", *Landmine Memo*, Oslo: PRIO, 1999, p. 1.
43. The logical framework (logframe) is a prominent project planning mechanism widely used by donors and international aid agencies. It

embodies a linear logic associated with simple and controlled conditions. It has given rise to much anguish. Whatever its merits and demerits, it is striking that those who favour it most are those whose power and control it enhances, and those who like it least are those whose discretion it diminishes. The latter have repeatedly found logframes irrelevant, rigid, constraining and disempowering.

44. Interview with Alejandro Bendano, Director of CEI, Managua, 19 September 2001.
45. Interview with Vera Dequembe, HI, Managua, 27 September 2001.

CHAPTER 2

PARTICIPATORY MONITORING AND EVALUATION OF HUMANITARIAN MINE ACTION IN MOZAMBIQUE

Hildegard Scheu

INTRODUCTION

This study is based on a fact-finding mission carried out in Mozambique between 22 October and 3 November 2001. Discussions regarding mine action and landmine victim assistance were held with representatives of the National Demining Institute (IND), major actors in the fields of humanitarian mine action, e.g. the Accelerated Demining Programme (ADP), Handicap International (HI), Norwegian Peoples Aid (NPA), the Canadian International Demining Centre (CIDC), the German Agency for Technical Cooperation (GTZ), as well as United Nations organizations—UNDP and UNICEF—and major bilateral donors, the Canadian International Development Agency (CIDA), the United States Embassy and the Norwegian Agency for Development Cooperation (NORAD). Furthermore, information was sought from the Mozambican Ministry of Health and the Ministry for Women and the Coordination of Social Action (Ministério da Mulher e Coordenação da Acção Social—MMCAS) as well as two NGOs, POWER Mozambique and Associação dos Deficientes Moçambicanos (ADEMO).

From 29 to 31 October 2001, a field trip was made with HI to two mine clearance sites in Inhambane Province: Mocumbi mission in Inharrime District in the south of the province, and Pandeia village in Govuro District in the north. The objective of the brief field trips was to obtain a better idea of how operations are carried out and how people in the mine-affected communities perceive the demining activities and their impact.¹ The Orthopaedic Centre in Inhambane town was also visited. This

was started by HI in 1985 and has been run by the provincial health administration since 1995.

BACKGROUND

Mozambique is a huge country with a land surface of 799,380 square kilometres and a long eastern coastline of approximately 2,700 kilometres. It is administratively divided into ten provinces: Maputo, Gaza, Inhambane, Sofala, Manica, Tete, Zambézia, Nampula, Niassa, Cabo Delgado, and Maputo city. It shares borders with South Africa in the south, Zimbabwe in the west, Zambia and Malawi in the north-west and Tanzania in the north. Military actions took place during the independence struggle from 1964 to 1975 and the following civil war from 1977 to the final peace agreement in 1992.

The population of about 18 million (2002)² is composed of different ethnic, linguistic and religious groups. About 96 per cent are Bantu tribes, the rest are of European (mainly Portuguese) and Indian origin. The colonial language, Portuguese, is the official language, but only about 13 per cent of the population speak it. As all the neighbouring countries are English-speaking and Mozambique has been a member of the Commonwealth since 1995, a shift to English as the major official language is currently under discussion.

Mozambique is among the least developed countries in the world. It has a gross national product (GNP) of US\$ 230 per capita and a poverty level of almost 70 per cent.³ According to 1999 figures, life expectancy is 39.8 years, the adult illiteracy rate is 56.8 per cent, and the primary school enrolment rate is only 40 per cent. HIV/AIDS is becoming a major problem with an overall adult prevalence of about 14 per cent of the population above 15 years.⁴

Mozambique experienced devastating floods in 2000 in the southern provinces of Gaza, Maputo and Inhambane, which killed about 600 people, displaced about 200,000 and affected the livelihood of about two million people, and a major flood in 2001 in the central provinces of Sofala, Manica, Tete and Zambezia. After the floods, it was feared that displaced mines would pose an uncontrollable risk, but fortunately, the accident rate did not increase. Mine specialists claimed that mines might have been

washed into the river and into the ocean and in some rare cases might have floated to other areas, but in general this has not grown into a major problem.

The traditional system of governance, which the socialist Frente de Libertação de Moçambique (FRELIMO) Government sought to abolish after independence, still operates in many villages, but legitimacy, functions and power differ from place to place. The place of a *regulo*, *chefe da povoação* or *mfumo* is not identical in all villages. The government administrative system operates parallel to traditional authorities. "The level of respect given to the traditional versus the government leadership seems to vary a great deal."⁵ It is therefore essential to study and understand the governance systems in place in a village and the complexities of community structures if humanitarian mine action (HMA) is to be effective and make an impact on the livelihood of those affected by mines.

THE LANDMINE SITUATION IN MOZAMBIQUE

Mine and Unexploded Ordnance Contamination

Landmines were first used by the Portuguese during the liberation war of FRELIMO against the Portuguese colonial Power between 1964 and 1974. After independence in 1975, FRELIMO formed the Government and followed a Marxist approach, which was soon violently opposed by the Resistência Nacional Moçambicana (RENAMO—Mozambican National Resistance), which was supported by Rhodesia and South Africa. The civil war between 1977 and 1992 caused millions of people to flee their villages and live as refugees, either within Mozambique or in neighbouring countries.

Most of the landmines laid down in Mozambique were placed by FRELIMO and RENAMO between 1978 and 1990. The Government used landmines mainly to protect important infrastructure and strategic sites. Minefields were also laid along the borders with Malawi, Zambia, Zimbabwe and South Africa. RENAMO targeted major infrastructure to weaken the economy and thus the FRELIMO Government; roads, railway and power lines were heavily mined. Both sides used mines to protect their military bases as well as villages under their control. Both sides have been accused of having used mines to terrorize civilians.

The Peace Agreement which ended the civil war was signed in Rome in October 1992, and a United Nations peacekeeping force, the United Nations Operation in Mozambique (UNOMOZ), was deployed to oversee the two-year transition period until the holding of multiparty elections in 1994.

Early estimates of the magnitude of the landmine problem in Mozambique were modified as more data have become available, and the landmine problem is now considered to be much less severe than assessed after the 1992 peace accord. Currently, landmines no longer figure as one of the main obstacles facing the country.⁶

Most areas are not heavily mined, but the presence—or even assumed presence—of landmines and unexploded ordnance (UXO) remains a significant obstacle to development. “A substantial demining capacity will therefore be needed for many years to come. However, the priorities will appear less pressing, and it will be necessary to restructure organizational responses.”⁷

History of Mine Action

Mine action in Mozambique started in 1993. A preliminary plan of action was developed in January 1993, but approved by FRELIMO and RENAMO only in November. Its emphasis was on clearing roads to facilitate the UNOMOZ peace mission, humanitarian aid delivery and the return of refugees and internally displaced persons. The focus on emergency-oriented objectives “resulted in a failure to recognize the need for long-term demining in the country. In addition, little attention was placed on the needs for comprehensive data gathering and the establishment of sustainable indigenous capacities.”⁸

The United Nations wanted to establish a mine action unit of its own, to be converted into a national capacity at the termination of the UNOMOZ mission. But donors did not support this plan, and remained committed to securing demining contracts for specific NGOs or commercial operators. The difference in approaches between the United Nations and the major donors is seen as the major obstacle to establishing a functioning central coordinating mechanism.⁹

NPA was the first organization to establish a demining capacity in Mozambique in 1993. Areas for clearance were selected on the basis of expected refugee return; priorities were set by the Office of the United Nations High Commissioner for Refugees (UNHCR), which also co-financed the clearance operations.

The Hazardous Areas Life-Support Organisation (HALO) Trust carried out a first national level one survey of the mine situation in 1993 under contract for the United Nations Office for the Coordination of Humanitarian Assistance (UNOHAC). The survey was heavily criticized. It did not cover the whole country and recorded only 981 mined areas of the 1,761 registered in the National Mine Clearance Commission's database by early 1999. It also did not address the socio-economic impact of landmines. HALO Trust started clearance operations with funding from the British Overseas Development Administration.

Having difficulty establishing its own mine clearance capacity, in mid-1993, the United Nations began a tender process for a US\$ 12 million road clearance contract. A consortium of commercial companies was finally contracted in mid-1994. The United Nations ADP started its activities in the southern provinces at the end of 1994. At the same time a demining school was established. After UNOMOZ withdrew in December 1994, UNDP took over the management and financial support of ADP.

Mine Action Coordination

Since the end of the civil war, mine action operations in Mozambique, be they humanitarian or commercial, have been carried out with a minimum of monitoring, coordination or planning at the national level. The establishment of relatively independent NGO capacities in Mozambique, which persists today, can largely be seen as a reaction to the slow United Nations response.¹⁰

The Comissão Nacional de Desminagem (CND), established in May 1995 with representatives from seven ministries, was supposed to coordinate operations, to maintain a national database, to develop strategic plans and to set procedures for prioritization. CND, however, proved unable to develop the capacity to set national priorities. After the development of the "National Mine Clearance Strategy Approach" (November 1998) following negotiations between the Government of

Mozambique, UNDP and major donors, CND was therefore replaced by a new body with larger autonomy from ministerial control.

In June 1999 the Government of Mozambique established IND with a mandate to coordinate, supervise and manage the cost-effective execution of a national mine action plan. From March 2000 to March 2003, UNDP was to provide technical assistance to IND designed to improve the capacity of the latter to fulfil its mandate. A Fundo Nacional de Desminagem (FUNAD) was also established.

IND is a semi-autonomous governmental institute, which reports directly to the Minister of Foreign Affairs. In order to integrate overall development priorities in the national plan, IND organizes inter-ministerial coordination biannually. IND has a regional office in Nampula and in Sofala Province.

A National Mine Action Plan, based on the results of the Landmine Impact Survey, was formulated in November 2001.¹¹ The plan covers a period of five years (2002-2006), with subsequent annual work plans scheduled. UNDP and the donors hope that the national plan will enhance and improve coordination and prioritization of operations. The Mine Action Plan recognizes the need "for an aggressive and sustained Mine Risk Education and Marking campaign to be re-launched"¹² based on the Education for Mine Accident Prevention Programme (PEPAM), which was executed by HI in cooperation with the Government between 1995 and 2001. The Plan also affirms the coordinating role of IND "to develop a coherent and coordinated national Survivor and Victim Assistance policy and program which adopts an integrated long-term approach to the plight of victims and survivors".¹³ The responsibility for survivor and victim assistance is shared between the Ministry of Health (MINSAU) and the Ministry for Women and the Coordination of Social Action (MMCAS).

Mozambique has signed and ratified the Ottawa Mine Ban Convention. In compliance with the Convention, in September 2001 a first destruction of stockpiles was carried out by the armed forces in coordination with IND.

Mozambique Landmine Impact Survey (2001)

The Canadian International Demining Corps and Paul F. Wilkinson & Associates Inc. executed the Mozambique Landmine Impact Survey (MLIS) between January 1999 and August 2001 on behalf of the mine action authorities of the Government of Mozambique. Funding (US\$ 2.2 million) was provided by CIDA as part of the Canadian Mine Action Programme in Mozambique.

The principal findings were as follows:¹⁴

- Landmines affect all 10 provinces of Mozambique and 123 out of 128 districts;
- At least 1.5 million persons, representing no less than nine per cent of the national population in 1997, are affected by landmines;
- Seven hundred and sixty-eight of the landmine-affected communities are classified as rural, but 23 urban communities, including three with more than 30,000 inhabitants are also affected;
- A total of 1,374 Suspected Mined Areas (SMAs) were identified. They cover an estimated 562 square kilometres. Some 41 per cent cover areas of less than 1,000 square metres and less than five per cent are larger than one square kilometre;
- Nine years after the end of the hostilities, landmine accidents still occur: at least 172 of the total of 2,145 landmine victims recorded during the MLIS had come to harm during the two years preceding it;
- SMAs most frequently impact: agricultural land, roads and non-agricultural land used for hunting, gathering firewood, and other economic and cultural purposes. Blocked access to drinking water due to SMAs is less frequent, but it has a serious impact nonetheless;
- Drawing on the Mine Impact Score (MIS), 20 communities with 36,000 inhabitants are classified as high impact, 164 communities with 393,000 inhabitants are classified as medium impact, and 607 communities with 1.1 million inhabitants are classified as low impact.

This classification is used for priority-setting for Technical Surveys (Survey II) and clearance operations in the Five-Year National Mine Action Plan 2002-2006.

The Mine Impact Score is a standardized ranking instrument approved by the Survey Working Group. It reflects three aspects of the mine situation as it affects a given community:

- The types of landmines, UXO and munitions;
- The categories of land, infrastructure and service areas to which landmines or UXO are blocking access;
- The number of victims of landmines or UXO in the two years preceding the group interviews of the Landmine Impact Survey (LIS).¹⁵

Landmine Victim Data

Reliable data on mine victims are not available. Compared to other mine-affected countries, the numbers are comparatively low and definitely declining over time.

A study carried out by HI in 1993 found that 50-60 per cent of the mine accidents were fatal, because the victims lacked (rapid) access to health services.

In 1996 HI began the systematic collection of data on mine and UXO accidents under its PEPAM project.¹⁶ Between 1996 and 2000, 564 victims were recorded, out of which 309 were men, 84 women and 171 children under 15 years old. Sixty-seven per cent of all accidents occurred in the provinces of Maputo, Inhambane and Zambézia, and only 7 per cent in the northern provinces of Nampula, Niassa and Cabo Delgado. The figures for the years were: 1996: 211; 1997: 130; 1998: 134; 1999: 60 and 2000: 29.

Analysis of the data revealed that the major risks of accident stemmed from farming or going to the fields, cutting wood for construction or collecting firewood, charcoal making, hunting, playing/manipulating with UXO as well as demining efforts (data included accidents of professional deminers). The majority of accidents occurred while the victims were engaged in subsistence activities. The fact that men constitute the majority of the victims may thus be explained by their greater involvement in economic activities like farming, hunting and transportation. An additional hypothesis is that there is also an underreporting bias in the case of women. Children become victims mainly as a result of manipulating grenades, ammunition and other UXO or parts thereof, or when helping with

subsistence tasks such as the herding of animals, collecting firewood or harvesting and hunting.

The study concluded that continued mine risk reduction education (MRRE) is important especially for making children aware of the dangers of mines and UXO.¹⁷

Of the 1,729 communities polled by the Landmine Impact Survey,¹⁸ 791 identified themselves as mine-affected. Of these, 429 communities reported a total of 2,145 victims since 1964, the start of the independence struggle. This total must be considered a minimum, since 31 communities reported “many” victims but could not even give an approximate estimate. The number of victims during the last two years preceding the group interviews in the communities was 172. Almost three-quarters of the recent victims were men, the majority in the age groups 15 to 44 years, while the majority of the female victims were in the age groups 30 to 59 years.

Victims were recorded in every province, with greater concentrations in Maputo and the eastern Inhambane provinces. Zambézia Province, the eastern parts of Nampula and Cabo Delgado Provinces, and the northern area of Manica Province also had higher numbers of victims.

The overall distribution of recent victims mirrors that of total victims, but their incidence is relatively greater in Nampula, southern Cabo Delgado and eastern Tete Provinces, as well as in southern Maputo and south-eastern Inhambane Provinces.

Generally, as the number of mine victims is low in both absolute and relative terms, their medical, economical, social and psychological needs do not figure prominently in social programmes in Mozambique.

The Socio-Economic Impact of Mines

While the victim rate is used as a major indicator of the socio-economic impact of mines, other aspects of impact have only recently begun to be explored in more detail in Mozambique.

Ananda S. Millard from the Assistance to Mine-Affected Communities (AMAC) Project at the International Peace Research Institute, Oslo (PRIO),

conducted an impact study in three mine-affected communities in Mozambique in 2000.¹⁹

Mine-clearance operators work on the assumption that the physical removal of mines will have an “automatic impact,” which is not always the case. Sometimes, there may be negative effects, too. In order to analyse the possible impact, operators have to find answers to a number of questions, such as: how will the resources freed by demining affect the distribution of wealth in a community? How do mines affect power relationships among the population? Who will benefit from demining?

Operators should establish knowledge of land rights, landownership and local land tenure systems prior to clearance. Similarly, knowledge and understanding of local relations and local leadership structures are essential, as local leadership is not standardized across communities. Respecting the authority (or authorities) in the village and building relationships with the community are a precondition for maximizing impact. “The broad issue of community relationships is closely linked to the more special issue of confidence in clearance.”²⁰ Confidence-building is a process rather than an event. For people to have confidence to use the cleared land, a handover ceremony at the completion of the clearance is not enough. Often, the local population is invited to this handover event, where a certificate stating the technical standards of the demining is issued to local authorities. Millard found that in many cases the population did not use the cleared land immediately, but that it took a long time before somebody started using the area. When no accident happened, other people might follow. It “seems that this is often linked to confidence in clearance.”²¹ Clearing a minefield according to existing technical standards is simply not good enough. Unless the areas are trusted and taken into use, the operation has failed.

The ultimate objective of humanitarian mine clearance is making an impact on people’s livelihoods. Millard and Harpviken argue for the necessity to review project areas regularly after project completion in order to be able to evaluate the long-term impact of demining.

The Nairobi case study showed that the cleared minefield was neither of agricultural value to the community nor did it pose a big accident risk, as people knew and avoided the area. “Nonetheless, the Nairobi operation is likely to have a major impact, primarily because it allows the local

population to reassert ownership of the administrative centre, from which they have been driven out repeatedly."²²

Many mine-affected communities have developed coping strategies to deal with the situation in which certain resources cannot be used. If the land cleared is not of vital importance to people, a high level of confidence is needed for them to use that land. "For agencies, it is essential to know the degree to which affected people are dependent upon the resource that is being freed through demining."²³

The Capirizanje case study illustrates the potentially distorting consequences of failing to consider the full impact of a clearance. The intended objective of the clearance at Capirizanje was to facilitate the return of refugees who would pass through the area and to reduce the accident potential. The actual result, however, was that many returning refugees decided to settle in the newly cleared area instead of just passing through. If the operators had tried to understand the perspectives of those being affected by the operation, this impact could have been foreseen. Operators need to be able to identify the impact that an operation will have for the local population.

In the third case study, eight kilometres of water pipeline were cleared to allow maintenance of the only source of fresh water to the port of the city of Nacala. The primary impact of the operation was considered at the macrolevel; the effects on local residents in terms of opportunities for charcoal production and hunting potential were not taken into account.

Millard and Harpviken conclude:

Hence, the conduct of thorough impact assessments prior to setting final priorities is necessary. This implies that agencies will have to invest in studying mine tasks that may eventually not be taken on. The requirement for analytical capacity therefore goes beyond attaching an analytical component to existing units. Furthermore, agencies need to develop the courage to invest in socio-economic analysis of tasks that may not become project areas. This requires not only capacity, but also a planning horizon that is longer than that most operators have at the moment.²⁴

In early 2001, Ananda Millard also carried out a pilot study in Manica Province using the community study approach. The project, which was

jointly undertaken by AMAC and NPA Mozambique, had two goals: "To train Norwegian People's Aid (NPA) staff in the community study approach to impact assessment and to test the operationalization of the approach at the field level."²⁵ These two studies contribute to a better understanding of the impact assessment of affected communities.

The Manica pilot study used information from the CIDC Landmine Impact Survey to identify nine communities as sites for the studies. Two high-impact communities and seven medium-impact ones (picked from a larger number of medium-impact communities in Manica Province) were selected. None of these nine communities had previously undergone a technical survey.

Ananda Millard first trained 10 local NPA staff in the "philosophy" of impact assessment and impact maximizing, in the use of methodological tools and in data analysis and report writing. Group interviews, open interviews with key locals and surveys were used as the primary methods, complemented by a review of secondary documents, when available, and participatory observations during the field work. After an intensive one-week in-class training, three teams were formed and each conducted three community studies each. The teaching staff monitored and supervised the teams.

Only one village out of nine, which was close to a minefield on the Zimbabwean border, had suffered a number of accidents involving civilians in the recent past. Some villages had reported accidents immediately after the war, but not in recent years, which can be seen as an indication that people had identified the locations of mines and UXO and knew to avoid those areas. There was no shortage of cultivable land, and subsistence activities like hunting, fishing or charcoal production were not prevented by the presence of mines. Consequently, none of the eight villages identified demining as their chief priority as regards external assistance. Villagers "often maintained that the mines pose no threat and that their economic situation would not improve if demining were undertaken. This can demonstrate both that over the years villagers have found coping mechanisms that make the impact of mines seem less significant and that people have developed a high tolerance for living with mines and the threats they pose."²⁶ Nevertheless, all villages expressed the wish to host a demining agency, because of the positive side effects of hosting an HMA agency, like the improvement of roads and transport availability.

The community study approach has proved to be an important tool for priority setting and is particularly relevant for the implementation phase of demining projects.

As Millard and Harpviken note,

In a country like Mozambique, where the majority of tasks have only a micro-level impact, where the number of accidents is rarely an accurate indication of impact level, and where communities have largely developed alternatives to using mined areas, the community study approach is very useful in the identification of priorities. Moreover, the need to ensure that impact materializes also requires a clear understanding of how the community functions and how operators might best adapt their work to suit a particular village. On this basis, the community study approach seemed an appropriate tool to fulfil NPA's needs.²⁷

The study also argues that, in view of the financial constraints for mine clearance in the years to come, it is of crucial importance to consider the economic and social impact in setting priorities for demining, and that alternatives to the removal of mines should also be explored in order to support the development of communities.

MINE ACTION

Mine Clearance

From 1992 to 2000, a total of 200,169,636 square metres was cleared, including 60,821,630 square metres of land, 68,323,951 kilometres of road, 68,813,455 square metres of power line conductors and 2,260,000 square metres of railway lines. A total of 71,476 anti-personnel mines, 538 anti-tank mines and 34,386 UXO were removed and destroyed.

In 2001, four major humanitarian organizations were operating in Mozambique: ADP, NPA, HALO Trust and HI. ADP, NPA and HALO Trust are demining organizations, operating in the three different regions of Mozambique: ADP in the Southern Provinces of Maputo, Gaza and Inhambane; NPA in the Central Provinces of Tete, Manica and Sofala; and HALO Trust in the Northern Provinces, Cabo Delgado, Niassa, Nampula

and Zambézia. HI has been running a “proximity demining programme” in Inhambane Province since 1997.

According to the case study of Mozambique in the UNDP/GICHD report,²⁸ one distinctive feature of mine action in Mozambique has been the extent of commercial involvement. By 1997, as much as 45 per cent of the total funding had gone to different commercial companies.²⁹

Accelerated Demining Programme

After the civil war, UNOMOZ initiated ADP and demobilized soldiers from both sides were trained as deminers. When the peacekeeping mission ended in 1995, ADP became a UNDP project. Contributions to ADP currently come from 13 bilateral donors, among which are Denmark, Germany, Ireland and Switzerland. Within the United Nations system, UNDP is responsible for “addressing the socio-economic consequences of landmine contamination and for supporting national/local capacity-building” and “for the development of integrated, sustainable national mine action programmes.”³⁰

At present, ADP is being transformed into an independent national NGO. UNDP will continue to gather funds for ADP, but upon its full transformation into an NGO, donors may choose to fund the programme directly.

ADP operates in the three Southern Provinces of Maputo, Gaza and Inhambane. Its annual budget is approximately US\$ 4 million.

It employs approximately 500 Mozambican nationals and 5 international advisers, who are responsible for management, operations and quality assurance. There has been some allegation (and criticism from others), that the internationals are dominating and “running the show”.

The field units comprise 10 manual demining platoons, 2 independent demining sections for smaller clearance tasks, 4 survey teams and a mine-detection dog team. The Finnish Flail Team provides a mechanically assisted mine clearance capability. The demining platoons are capable of operating in small groups that rapidly respond to priority tasks.

Regional headquarters in Maputo and Inhambane support field operations. The national headquarters are based in Maputo. The Mine

Clearance Training Wing of ADP runs a Demining Training School in Moamba near Maputo, which supplies technical demining training (e.g. the use of a specific mine detector suited for very highly contaminated soils), refresher training, and survey courses (e.g. Second-in-Command course) for survey team commanders. Deminers from NPA and HALO Trust were also trained here.

Norwegian Peoples Aid

NPA operates in the Central Provinces and has its headquarters in Tete and a sub-office in Chimoio in Manica Province. NPA employs approximately 570 staff and uses both manual demining (9 units) and mine detection dogs (about 30). It has a training field for dogs and Mozambican dog handlers.

One objective of the clearance project is to encourage maximum local participation in fighting the landmine problem in an environmentally conscious manner. In areas where demining is undertaken, NPA also cooperates with Mozambican Government agencies to provide community and primary health-care services.

For the Manica pilot study: "Implementing a new approach to landmine impact assessment with illustrations from Mozambique", NPA cooperated with the AMAC project (based at PRIO).³¹

After the AMAC training in the community studies approach, NPA identified a team of three trainees to create an impact assessment unit. The goal of this unit is

to provide NPA-Mozambique Mine Action Unit with information on socio-economic impact at the micro-level. This will include study reports on potential tasks for priority-setting purposes, evaluation reports of ongoing tasks and post-clearance evaluation reports. The unit will be responsible for conducting studies, report write-up and briefing to both management and field staff. The objective of the units is to provide NPA-Mozambique Mine Action Unit with sufficient information regarding socio-economic impact, which will assist in decision-making.³²

NPA receives financial support from Norway (through NORAD) as well as from Denmark, the Netherlands and Sweden.

HALO Trust

HALO Trust operates in the Northern Provinces of Cabo Delgado, Niassa, Nampula and Zambézia. The headquarters is in Nampula. Priorities for clearance are set in coordination with the respective provincial governor, who gives his priority ranking to a list of surveyed areas given by HALO, which is then compared against HALO Trust's own ranking and a final decision is jointly made. A socio-economic impact assessment prior to operations is not performed.³³

HALO Trust's "simple mission statement—getting mines out of the ground, now"³⁴ seems to be reflected in the way it operates: establishing communication, rapport and confidence-building with the community in proximity of the clearance operation is not an explicit part of their mission.³⁵

In 2000, HALO Trust had 125 employees and a budget of US\$ 1,105,426. In 2001, it received funds from Australia (Austcare), Ireland, the Netherlands, Switzerland, the United Kingdom.³⁶

Handicap International

In 1997 HI started its Inhambane Mine Clearance Project (IMCP) in Inhambane Province. It recruited and trained four teams of 36 deminers. In 2001, HI employed four teams of 12 deminers each, one team of 22 deminers, and one team of eight people for technical surveys. It also hires dogs with their handlers from South Africa when needed. Efforts are concentrated on those small areas that are in close proximity to settlements in order to meet the needs of local, district and provincial populations. "Proximity demining" also refers to the close contact maintained between the demining teams and the affected population.

HI selects potential sites for demining on the basis of priority, local needs, immediate value to local communities, local plans, potential rehabilitation funding, the size of minefields and input from other organizations. Priorities are set in collaboration with the provincial and district administrations. Close contacts are established with the local communities at demining sites and, after completion of a task, a formal handover procedure is carried out so that the community knows exactly the area that has been cleared.

Two demining sites were visited during the field trip: Mocumbi mission and village in Inharrime District and Pandeia village in Govuro District.

Demining in Mocumbi had been ongoing for 18 months with one HI demining team. Anti-personnel mines, partly booby-trapped, were laid around the Catholic mission during the war, because of the presence of a military camp there. During and after the war, seven accidents were reported from these minefields. Soldiers told people in 1993 about the places that were mined. HI marked the minefields during the survey.

About 22,000 people including 5,000 families live in the village. The village has a school with about 600 students attending grades 1 to 7. In earlier times, it was a boarding school, but now students who come from outside the village have built their own huts close to the mission, as have done teachers and nurses. The village also has a small clinic, but the facilities are very basic and the staff seem to lack major skills. They did not know of any mine accidents in the area. Some of the students questioned did not feel affected by the presence of mines; they know the mined areas and avoid them. Some of the students remember having received some kind of mine-awareness education, but the younger ones especially did not. It is not part of the school curriculum.

The land, including the part that is mined, belongs to the mission. Villagers are allowed to use it for cultivation and for constructing huts from local material. Some of the land cleared has already been handed over to the community and families resettled on it. Cashews and mangoes harvested from trees on the land are used for trade. Many such trees are still on land currently being cleared, and villagers expect that the demining will allow them to harvest more and thus improve local living conditions. The camp of the HI demining team is close to the village centre on the main road to the village. People said that they were aware of the presence of the team and that they were informed about the demining. The impression from the short visit was that the people were quite happy about the demining effort and that families already used the cleared land with confidence.

Pandeia in Govuro District is a transit centre and a resettlement area for the victims of the floods of 2000 and 2001. About 5,500 families live in the area. Pandeia has a newly built school with grades 1 to 5, with about 300 children and six teachers. Some classes still have to take place in old semi-

permanent structures. The director said that mine awareness sessions had been held for students for the past two years.

Demining efforts in Pandea had only started a couple of weeks before our visit. The minefield is big, but its parameters are not yet precisely known. It is close to the settlement area and to the major road. One accident happened last year, but luckily the man was only wounded. HI is working there with a group of 22 deminers and two dog teams. The whole operation was well explained by the platoon leader.

The president of the village as well as several villagers asked, were aware of the ongoing demining operation. The president said the demining team had not yet approached him directly, but he was very much in favour of demining as a precondition for other development efforts. He said the village needed a lot. After demining, the area will be used for resettling people, who could build their houses there and use the fields.

On the way back to Inhambane, we briefly visited the village of Unguana (Massinga District), where HI had earlier cleared mined land to see how villagers were using the land for agricultural production. The fields are now more accessible and people are happy that they can use the land without fear.

Until 1999 HI received funding for its demining programme from the European Union and the Netherlands. Since then funding has come from the National Automobile, Aerospace, Transportation and General Workers Union of Canada, CIDA, the Embassy of the Netherlands, the French Cooperation and AusAID (Australian Agency for International Development) through Austcare, an Australian NGO.

Menschen gegen Minen

Menschen gegen Minen (MgM) is a German NGO that has been working in humanitarian mine clearance since 2000. After the flooding of the Limpopo river in 2000 MgM handled emergency tasks. Currently it is working on a mine-suspected area along the railway line in the Limpopo valley in Gaza Province, a clearance project funded by the German Government. Manual demining, two dog teams and mechanical equipment are used. The demining teams also assist the local population in clearing singular mines and UXO when called upon.

Commercial Companies

The United States Department of State provided US\$ 3.14 million for demining to Ronco, United States company, in 2000. The company employs about 100 Mozambican deminers in eight teams with mine detection dogs. One major task is the clearance of the Sena Railway Line. Ronco also provides support to IND in training of their personnel and to improve the database.

Humanitarian agencies and donors, including UNHCR, UNICEF, the European Union and the World Bank, have contracted commercial companies for clearance tasks, like Mine-Tech (Zimbabwe), Mechem (South Africa), Empresa Moçambicana de Desminagem, Lda (EMD), Afrovita (Mozambique), Lonrho (Mozambique) or Special Clearance Services (Zimbabwe).

Germany's GTZ has hired Mine-Tech for the demining components of its integrated development projects in Manica and Sofala Provinces. This collaborative effort led to the development of the Integrated Humanitarian Demining for Development (IHDD) approach and the Community Mine Awareness for Development (CMAD) concept.³⁷

Armed Forces of Mozambique

In 2000, the United States State Department provided the Mozambican military (Forças Armadas de Moçambique—FADM) with demining equipment and vehicles as well as funds for demining. Until 1999, the Mozambican Department of Defence supported military training, which also included the training of deminers. The military runs a demining school in accordance with international standards. Though military demining units were involved in mine clearance along a power line from South Africa to Maputo as well as other tasks, they do not play any major role in humanitarian demining.

The military was in charge of the landmine stockpile destruction in September 2001, when about 600 anti-personnel mines were destroyed.³⁸ FADM has submitted to IND a detailed work plan and budget for the destruction of the existing 37,500 anti-personnel mines in its possession until 2003.³⁹ The Government of Mozambique is committed to fulfilling the obligations of stockpile destruction as per article 4 of the Ottawa Treaty.

Mine Risk Reduction Education (MRRE)

Handicap International

HI began mine-awareness education programmes for returning refugees at the request of UNHCR in 1993. Key persons from other organizations like the Mozambican Red Cross, health personnel, teachers and local leaders in mine-affected villages were trained to spread mine awareness messages. Starting from the local level in Tete Province, HI progressively built a network of 84 organizations (public and private) up to the national level. HI initiated and coordinated the PEPAM national mine-awareness/MRRE programme from 1995 until 2001. An evaluation of materials developed by PEPAM was carried out and published in 1999.⁴⁰ PEPAM was supported financially by Australia, Finland, Norway, Sweden, Switzerland, UNDP, UNICEF and the United States.

A handover of PEPAM to IND was originally planned for 2000. A project to support IND to reorganize its civic education sector, which coordinates awareness actions regarding the danger of mines and UXO, and to train IND staff was carried out with funding from the Embassies of Norway and Sweden, the Swiss Agency for Development and Cooperation (SDC) and UNICEF. Baltasar Ussaca, the HI PEPAM Coordinator until the end of October 2001, when the coordination was finally transferred to IND, was doubtful whether IND was capable of running the programme.

After the floods in February and March 2000, HI in collaboration with IND carried out an intensive awareness campaign on the danger of mines from March to October 2000 in the Southern Provinces. Similar campaigns were carried out in March 2001 in the Zambezi valley, which had been flooded before.

HI developed a database of implementing partners and activities in MRRE, which operates from the IND offices in Maputo and in Nampula. A user's guide to this database was also developed and installed in 2001.

Data relating suspected mined areas and mine accidents recorded during the PEPAM programme between 1995 and 1999 were also integrated into the database during the CIDC Landmine Impact Survey according to IMSMA. Furthermore, a document was produced that showed the statistical results regarding accidents/victims between 1996 and 2000, and hypotheses on population and risk activities.⁴¹

HI developed a strategic proposal for integrating MRRE into the education system.⁴² The proposal has three major objectives: (1) capacity-building of teachers and instructors of teachers at teacher's training colleges, (2) the production and dissemination of didactic material, and (3) technical assistance for the implementation and institutionalization of MRRE within the school system. PEPAM and the Ministry of Education collaborate at different levels: national, provincial (Direcção Provincial de Educação) and local (Direcção Distrital de Educação). The technical as well as pedagogical advisers of PEPAM support the Ministry of Education and its departments.

In mine-affected areas, 403 so-called zones of pedagogical influence—“Zonas de Influência Pedagógica” (ZIP)—were formed under the local education authorities, each with a coordinator, usually a school director or a teacher. Two thousand and sixty-five teachers have been trained.

The PEPAM technical advisers are also involved in the revision of the school curriculum and the integration of MRRE as a part of civic education into all relevant subjects. The HI proposal has been accepted by the National Institute for the Development of Education (Instituto Nacional de Desenvolvimento de Educação). The process of revising the school curriculum began only in 2001 and the new curriculum is to be introduced in 2003.

GTZ/Mine-Tech

GTZ began to collaborate with the Zimbabwean demining company Mine-Tech in 1994, when it carried out on behalf of UNHCR the demining of roads in preparation for the passage of refugees. Minefields were cleared around villages, schools, health posts and other vital infrastructure in the two provinces of Manica and Sofala, where GTZ supports rural reconstruction and development cooperation projects. GTZ and Mine-Tech jointly developed the IHDD concept that puts people and their communities at the centre. IHDD relies on the local population to gather information about the mined areas and UXO. At the same time, IHDD recognizes that since demining is expensive and money available for clearance is limited, many communities will have to live with the explosive legacy of the war for quite some time. It is thus imperative to develop means to enable the communities to prevent mine and UXO accidents.

Information gathering from key informants and giving mine-awareness lectures with the help of wooden mine and UXO models to the

communities, gathered at a central place was part of Mine-Tech's work. After some time, the limitations of this top-down approach became obvious, and a pilot project to develop new, participative methods was undertaken in Cheringoma District in Sofala Province in 1998.⁴³ The result was the CMAD concept.⁴⁴ CMAD is based on participatory, interactive methods and aims at mobilizing and enabling communities to effectively deal with the mine threat and take adequate actions. Community-based awareness raising and the learning of risk-reduction behaviour are the most important elements. Community volunteers are trained as mine-awareness facilitators and intermediaries between the local population and the clearance organization as well as national demining authorities. It is essentially a process of building long-term trust and confidence between the outside mine action agents, the development agents and the communities. It is also a first step towards community development, as the momentum initiated through mine awareness and community mine action (reporting, keeping up marking signs, developing coping strategies where mined areas cannot be used for subsistence production, etc.) could easily be transferred to other development activities. Unfortunately, the long-term impact of this approach on the communities has yet to be evaluated.

Cruz Vermelha de Moçambique (Mozambican Red Cross)

The Mozambican Red Cross is a cooperating partner in the PEPAM programme. It carries out mine awareness activities in 56 districts. While HI provides training and material, Red Cross agents and community volunteers implement the programme. Nowadays, there is not much emphasis on MRRE, and the new priorities are HIV/AIDS prevention and disaster preparedness.

The Red Cross also provided mine victim assistance in the provinces of Niassa, Cabo Delgado and Gaza.

Survivor Assistance

Special programmes for mine accident survivors or for the families of mine victims do not exist in Mozambique.

The number of amputees is estimated at 10,000 people, which includes all forms and reasons for amputation, like traffic accidents, work accidents, diseases, landmine accidents, etc.

The responsibility for physical rehabilitation rests with the Ministry of Health (MINSAU), which runs the nine orthoprosthetic centres, one in each provincial capital except for the Gaza and Manica Provinces. Two centres exist in Inhambane Province (Inhambane and Vilankulos). HI established six of these centres (Inhambane, Vilankulos, Tete, Pemba and Lichinga), while ICRC established four (Maputo, Beira, Quelimane and Nampula), in cooperation with MINSAU. In 1995, the programme of physical rehabilitation of disabled people implemented by ICRC was taken over by POWER Mozambique, a nationalized NGO started by the United Kingdom-based NGO POWER. In 1999, full responsibility was transferred to MINSAU, and since then the output of orthosis and prosthesis has decreased considerably, according to the director of POWER. HI had already transferred responsibility to MINSAU in 1998.

All the orthoprosthetic centres cater to all disabled, and the percentage of mine victims is steadily declining. While landmine victims accounted for 29 per cent of new patients in 1997, they accounted for only 9 per cent in 2000. POWER still provides technical support to MINSAU for running the orthoprosthetic services.

The Mozambican Red Cross, in cooperation with the Jaipur Limb Campaign (JLC), established an orthopaedic centre in Manjacaze District, Gaza Province, in 2000. Most beneficiaries are victims of landmines. A plan for a mobile centre has not yet been implemented for lack of funds.

The Ministry for Women and the Coordination of Social Action developed a Policy for Disabled Persons, which was approved by the Council of Ministers and published in 2000.⁴⁵ HI, POWER as well as other donors support the Ministry at various levels in the implementation of the policy. But a lot still has to be done to reach the objective of social and economic integration of disabled persons.

The Ministry runs a programme that organizes transport for disabled people to medical services or orthoprosthetic centres. It has departments in all provinces, but not in all the districts. People in many remote areas of Mozambique may not even be aware of all the services offered. There is also a programme that supports socio-economic microprojects of disabled persons. As the funds are limited, only a few recipients benefit.

Complaints about the lack of concern regarding victim assistance on the part of the Government and government employees were rampant.⁴⁶

POWER is working closely with local disability organizations, specifically with ADEMO, the main association for disabled Mozambicans. ADEMO runs a community school for disabled children in Maputo and is developing a pilot project for vocational training (bakery, metalwork, carpentry and probably leather work at a later stage) as well as a pilot project to provide rural disabled people with donkey carts as an alternative means of transport in order to enhance their mobility and livelihood.

Mine Action Funding

According to the *Landmine Monitor Report 2001*, mine action funding totalled some US\$ 17 million in 2000. Of this, US\$ 6.6 million were allocated to IND, and US\$ 10.6 million were provided to mine-clearance organizations.⁴⁷

Major donors are UNDP with funds from Canada, Denmark, Germany, Ireland, Sweden and Switzerland, as well as Austria, Canada, Germany, the Netherlands, Norway and the United States, which fund mine action activities directly.

CONCLUSION

Mozambique is a geographically vast country populated by diverse ethnic and linguistic groups. From 1964 to 1992 the country experienced constant military strife, first as it struggled for independence, then as it fought a civil war. This history of prolonged military action has left in its wake a high incidence of mined areas and UXO.

Landmines and UXO affect all 10 of Mozambique's provinces and almost all of its 128 administrative districts. Although most areas are not heavily mined, the presence of mines and UXO continues to represent an impediment to development. The majority of mine accidents occur while the victims are engaged in subsistence activities such as farming, wood collection and hunting. Accidents also occur as a result of children playing with or manipulating UXO and of local informal demining efforts.

Mine action operations in Mozambique began in 1993. However, they have been conducted with little planning and coordination at the national level. In 1999 IND was established to design and manage the execution of a National Mine Action Plan. The plan covers a period of five years with subsequent priorities scheduled annually. Landmine action in the country is primarily carried out by a number of foreign humanitarian NGOs and a host of different commercial companies contracted by donors and international humanitarian agencies. The military plays a very limited role. Mozambique has signed and ratified the Ottawa Mine Ban Convention.

Although precise data on mine victims in Mozambique are not available, their numbers appear to be comparatively low and falling over time. However, it seems relatively clear that the needs of mine victims are poorly attended to and that even demining programmes do not necessarily heed the requirements of the local population concerned. In this regard, the integration of participatory monitoring and evaluation techniques in mine action programmes could yield substantial benefits.

Due to limited resources and a challenging socio-economic environment, the adoption of participatory monitoring and evaluation approaches would not be an easy task. The most promising line of approach is the introduction of pilot participatory monitoring and evaluation projects in collaboration with the major humanitarian NGOs already active in the country in conjunction with IND. Preliminary inquiry suggests that HI, NPA and ADP which operate demining projects in the southern and central part of Mozambique would be willing participants in the establishment of such projects.

Notes

1. I would like to thank Adérito Ismael, HI Project Manager in Inhambane, for his valuable comments on the first draft of this study.
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 22. *Ibid.*, pp. 94-95.
 23. *Ibid.*, p. 95.
 24. *Ibid.*, p. 96.

25. A. S. Millard and K. B. Harpviken, *Community Studies in Practice: Implementing a New Approach to Landmine Impact Assessment with Illustrations from Mozambique*, p. ix.
26. *Ibid.*, p. 59.
27. *Ibid.*, p. x.
28. UNDP/GICHD, *A Study of Socio-Economic Approaches to Mine Action*, p. 154.
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31. A. S. Millard and K. B. Harpviken, *Community Studies in Practice: Implementing a New Approach to Landmine Impact Assessment with Illustrations from Mozambique*.
32. Norwegian Peoples Aid—Mozambique, "Standard Operating Procedures and Guidelines for Impact Assessment Unit. Internal Draft", cited in *ibid.*, p. 25.
33. HALO Trust was contacted before and during the fact-finding mission, but information could not be acquired directly due to time constraints.
34. Cited from the web page: www.halotrust.org/intro.html.
35. See also A. S. Millard and K. B. Harpviken, *Reassessing the Impact of Humanitarian Mine Action: Illustrations from Mozambique*, p. 85.
36. Republic of Mozambique, *Landmine Monitor Report 2001*, <http://www.icbl.org/lm/2000/report/LMWeb-07.php3>.
37. Fritz Mamier, Chris Pearce and Ulrich Weyl, "Die Vergessenen Minenfelder", *Schriftenreihe der GTZ*, Universum Verlagsanstalt, 2000.
38. The technical quality of the operation was heavily criticized by ADP technical advisers. They claimed that dangerous parts of mines were left scattered around the demolition site. ADP had been asked for technical assistance by IND for the stockpile destruction, but demanded full control over the process and refused to collaborate if the military was in charge. Evidently, some conflicts of interest were involved.
39. IND, *The Five-Year National Mine Action Plan 2002-2006*, p. 22.
40. Handicap International, *Os utensílios do PEPAM em Moçambique. Capitalização, Programa de Educação para a Prevenção de Acidentes causados por Minas e Outros Engenhos Explosivos Coordenação Minas*, Maputo: HI, 1999.

41. Handicap International, "A recolha de dados sobre acidentes com minas e engenhos explosivos em Moçambique", PEPAM 1996-2000, Maputo: HI, July 2001.
42. Handicap International, *O PEPAM no sistema de Educação formal. Capitalização, Programa de Educação para a Prevenção de Acidentes causados por Minas e Outros Engenhos Explosivos Coordenação Minas*, Maputo: HI, 2001.
43. Hildegard Scheu, "Community Mobilisation and Mine Awareness Approach", final report, Pilot Project in Inhaminga, Cheringoma District, Sofala Province, Mozambique, 29 June to 5 September 1998. Submitted to GTZ, Eschborn; and "Training in participatory methods and communication techniques for Community Mine Awareness for Development (CMAD) Advisers", 8 to 16 October 1998, Harare, Zimbabwe. Final report submitted to GTZ, Eschborn, 1998.
44. Hildegard Scheu, "Development of Concept, Method and Approach in a Pilot Project, Inhaminga, Mozambique", in *Integrated Humanitarian Demining for Development (IHDD) and Community Mine Awareness for Development (CMAD)*, conference report, Brussels, 23-24 February 1999, <http://maic.jmu.edu/hdic/journal/4.3>; and "Integrierte humanitäre Entminung für die Entwicklung im ländlichen Mosambik", in *Landminen und deren Beseitigung*, Report Verlag, June 2000, pp. 52-53.
45. República de Moçambique, Ministério da Mulher e Coordenação da Acção Social, *Política para a Pessoa Portadora de Deficiência*, November 2000.
46. During the fact-finding mission, the Head of the Department of Medical Assistance for the Physically Disabled in the Ministry of Health failed to turn up to a confirmed appointment in the Ministry. None of the other employees were concerned, nobody tried to phone him at home or find out where he was.
47. Republic of Mozambique, *Landmine Monitor Report 2001*, p. 4.

CHAPTER 3

PARTICIPATORY MONITORING AND EVALUATION OF HUMANITARIAN MINE ACTION IN CAMBODIA

Chris Dammers

BACKGROUND

This report is based on a brief study of aspects of mine-related programmes in Cambodia. The background study was one of three such country studies undertaken which together comprise the basis for planning a programme to test the assumption that participatory monitoring and evaluation techniques can enhance the verification of the Ottawa Mine Ban Convention.¹ Such participatory techniques are also seen as having the potential to enhance the appropriateness, efficiency and effectiveness of mine action projects and programmes.

To quote from the framework document for the study: "In contrast to the traditional approaches towards arms control monitoring and verification which utilize top-down, highly intrusive and expensive techniques of monitoring and verification, citizens' M&V (monitoring and verification) seeks to democratize the process, by using bottom-up approaches orchestrated and executed by civil society groups ... The community is the ultimate barometer of the success or failure of a landmine programme. Involvement of community members in mine action programmes, decision-making, evaluation and implementation is a major means of achieving the necessary fit between the programme and its beneficiaries."²

More generally the study seeks to consider the application of the Bad Honnef Guidelines for Mine Action Programmes adopted at the First International Conference of Experts in June 1997 as well as at the

International Campaign to Ban Landmines (ICBL) NGO Forum later that year. These guidelines emphasize:

- participation and cooperation (integrated mine action programmes based on community participation);
- coherence and sustainability (mine action programmes as part of peace-building, reconstruction and development programmes); and
- solidarity (promotion of autonomy instead of creation of new dependencies).

One of the objectives of the three-country study was to try to identify humanitarian mine action programmes that might themselves be suitable for participatory monitoring and evaluation (PME), with a view to setting up workshops on PME and participatory rural appraisal (PRA) techniques. For this to be possible the mine action programmes should themselves be community-based, or at least rooted in civil society institutions. Despite a certain amount of rhetoric, this is rarely if ever the situation in Cambodia, where for historical reasons civil society is remarkably weak and community ownership of mine action programmes (and of development programmes more generally) is extremely limited.³ Faced with this situation, the research tried to identify potential outcomes that might advance the process of promoting community ownership and management of mine action initiatives, whilst recognizing that this is a long-term process. The study has also taken the opportunity to advance a critique of aspects of mine action in the country, in the hopes that this might have a constructive impact on the development of appropriate methodologies, attitudes and practices in what can often seem to be an unpromising environment.

A further objective of the country studies was to consider the extent to which Governments are meeting their obligations under article 6, section 3, of the Ottawa Convention which states that "Each State Party in a position to do so shall provide assistance for the care and rehabilitation, and social and economic reintegration, of mine victims and for mine awareness programs." We believe that such social obligations of the convention are generally given low priority by signatories. Moreover the ICBL Working Group admits to limited capacity to assess mine victim assistance programmes. The key question here for Cambodia, though not the only one, is whether the impoverished Government is in a position to meet such obligations. We argue below that this is not only a question of resources but of policy priorities.

LANDMINES IN CAMBODIA⁴

Cambodia has one of the most serious mine and UXO problems in the world, with an estimated 40,000 victims.⁵ An estimated 3,600 mined areas cover an estimated 2,900 square kilometres of the country.⁶

Ratification of the Ottawa Treaty coincided with the start of a period of comparative stability and tranquillity in the country, following 30 years of (mostly civil) war of varying degrees of intensity, as well as periods of cataclysmic social upheaval.

The decline in the level of mine and unexploded ordnance (UXO) accidents since the elections of 1998 now appears to be levelling off, with the impact of clearance and virtual ending of military casualties being offset by the risk-taking associated with resettlement and land reclamation, including extensive "spontaneous demining."⁷ The following figures are indicative, though should be treated with caution.⁸

Year	Casualties	Killed	Injured
1995	2,985	583	2,402
1996	4,098	859	3,239
1997	1,937	447	1,490
1998	1,900	394	1,506
1999	1,045	236	809
2000	800	161	639
2001*	(884)	(168)	(716)

*Estimates extrapolated from figures for the first nine months of 2001.

For the 12 months to September 2001 casualties are broken down as follows:⁹

Cause of casualty	Percentage
Mine	50
UXO	50

Type of casualty	Percentage
Death	19
Amputation	32
Other injury	49

Victim category	Percentage
Men	67
Women	7
Children	26

Victim category	Percentage
Military	5
Civilian	95

Cause of casualty	Percentage
Pursuing livelihood	55
Tampering	38
Military activity	4
Other	3

Mines cleared in 2000 ¹⁰	Number
Anti-personnel mine	22,613
Anti-tank mine	856
UXO	61,589
Area cleared (m ²)	31,186.340

The high number of casualties from tampering is particularly significant. For children, tampering (including playing with mines/UXO) accounts for 60 per cent of victims.¹¹

GOVERNMENT AND CIVIL SOCIETY

Any attempt at considering options that relate to participatory mine action as described in the Bad Honnef Framework must take a realistic look at social and political circumstances in the country concerned. Cambodia has had an almost uniquely tragic and destructive history during the second half of the twentieth century.¹² Even before that, a defensive nationalism under constant threat from more powerful neighbours had hampered social and economic development, with power concentrated in the hands of the Royal Court, and later of the French colonial authorities. Nevertheless this history would still have provided the basis for more familiar patterns of social and economic development had Cambodia not occupied a key frontier of super-Power rivalry, in a location where the Cold War can be said to have boiled over.

Cambodian civil society was never strong and was completely destroyed in 1975. Its revival over the last decade has not taken place in fertile soil. This has not proved a promising environment for community-based humanitarian mine action.

The royalist regime with its semi-feudal roots which followed independence from the French in 1953 had only limited commitment to democracy or pluralism; as had Lon Nol's American-backed republican military regime that overthrew the monarchy in 1970. When the Khmer Rouge seized power in 1975 they abolished civil society overnight, banishing urban populations to the countryside and embarking on one of the most radical, destructive, misguided and brutal attempts at social transformation ever seen. The Vietnamese-backed regime that overthrew Pol Pot in 1979 remained fully committed to retaining centralized governmental control, maintained under conditions of continuing civil war and international economic boycott.

Civil society only started to redevelop following the Paris Peace Accords of 1991 and the elections of 1993. This process was both stimulated and hampered by large amounts of international aid and a plethora of donors, United Nations agencies, and international NGOs,

many of them unaware of the difficulties and complexities of creating genuine democracy, pluralism and civil society, or imagining that this could somehow be done largely on their own prescriptions.

The 1993 elections were won by the royalist United National Front for an Independent, Neutral, Peaceful and Cooperative Cambodia (FUNCINPEC) party, but the results were not accepted by the Cambodian People's Party (CPP), effectively the governing party for the previous decade, who retained considerable political power and administrative authority in much of the country. The resulting power-sharing compromise involved the creation of two prime ministers (one for each party) but did not resolve the conflict. The Khmer Rouge, who had boycotted the elections, retained their power base in western Cambodia, from where they continued to destabilize the country.

Political instability and low level civil war thus continued during the 1990s, leading to an internal coup in 1997 where FUNCINPEC was effectively overthrown by the CPP, leading to threats of a renewed international boycott and a suspension of some development assistance. The demise of the Khmer Rouge¹³ meant that the elections of 1998, won this time by the CPP but leading to another coalition government with FUNCINPEC, appear to have led to conditions of comparative stability.

It is clear however that addressing social rather than political problems remains a comparatively low priority for the Government, and that authoritarian political perspectives persist, along with continuing threats of violence.¹⁴ It also needs to be borne in mind that millions of Cambodians, including a very high proportion of educated people, were killed, died or went into exile during the Pol Pot period; hardly any refugees returned during the following decade and many have never returned at all—especially the most educated and qualified.

Despite impressive economic growth in the last few years Cambodia remains one of the poorest countries in Asia. In 1998 per capita income was estimated at US\$ 242. In 1999 expenditure on health was estimated at US\$ 1 per head, with a similar figure for social services; however only one third of the social services figure was estimated to be spent on "social action," representing 1.7 per cent of the limited public sector budget.¹⁵ Even within the acute financial constraints faced by the Government, social issues do not have a high priority.

MINE ACTION

Demining and humanitarian mine action have almost entirely depended on international funding, on the basis that the Cambodian Government has minimal financial resources of its own. This is certainly a central factor, though is not perhaps the full story. Even a government with a limited revenue base must establish its financial priorities. As has been seen, there is a continuing preoccupation with political, military and security matters which is itself a function of internal and international tensions; these tensions have lessened since 1998 but have not disappeared. However within the proportion of the budget devoted to social and economic issues, it is clear that mine action has a comparatively low priority. There may be good reasons for this; demining and mine action as traditionally conceived may not appear to be a cost-effective use of funds when considered against the potential impact of expenditure on health or education. Undoubtedly too mine action is seen as a sector where international funding is comparatively available.

Whatever the implications of these factors, it is clear that the Cambodian Government should not be judged too harshly on its failure to implement the social provisions of the Ottawa Treaty. Significant implication would indeed be beyond the means and resources of the Government. At the same time it should be noted that these provisions are by no means at the top of the Government's agenda.

Three agencies, the governmental Cambodian Mine Action Centre (CMAC), the HALO Trust, and the Mines Advisory Group (MAG), together with the Royal Cambodian Armed Forces (RCAF) between them carry out virtually all official demining in Cambodia. The extent of informal or "spontaneous" demining is not known though is clearly considerable. Commercial demining companies now have permission to operate but are only just beginning to do so. Estimated costs for 2000 for the three principal agencies were:

Agency	Funding for 2000 (US\$)
CMAC	7,612,044
MAG	4,000,000 (approx.)
HALO Trust	4,000,000 (approx.)

Whilst MAG and HALO Trust funding had remained comparatively constant, CMAC funding had declined from over US\$ 10 million in 1997.¹⁶

It is clear that for the best part of a decade both demining and humanitarian mine action (the latter based largely on the uncertain business of promoting “mine awareness”) have been carried out with almost no serious attempt to ascertain the social, political and economic impact of these interventions.¹⁷

In particular demining has been carried out with little regard to subsequent land use, despite the fact that the country still lacks effective legislation on landownership, and despite the widespread control of land by local and national political and military factions and individuals who rely on the use or threat of violence to ensure such control. The abuse of the use of demined land eventually led to some whistle-blowing by advisers seconded to CMAC, which only after seven years of operation has attempted to address or at least consider these issues, through the incorporation of a “social and economic” department which is supposed to take these issues into account, but whose authority to veto demining initiatives remains unclear.¹⁸

Developments within CMAC are a good illustration of some of the parameters of mine action in Cambodia. The whistle-blowing on CMAC by (expatriate) advisers extended to allegations of what reports refer to as “financial mismanagement.” In 1999 and 2000 some donors withheld funds; from a high point of 3,500, 2,920 staff were laid off during this period, though most have now been re-employed.¹⁹ Operational demining platoons were reduced from 66 to 15.²⁰

Amongst the reforms pushed by some donors was the separation of the supervisory functions of CMAC, which was responsible for coordinating all mine action activities in Cambodia, from the implementation of demining and related activities. The solution was to set up a separate organization, the Cambodian Mine Action and Victim Assistance Authority (CMAA) to provide the important coordinating role. The director of CMAC was appointed to be the new director of CMAA; this was widely interpreted by donors as representing Government reluctance to take seriously the institutional problems that CMAC had experienced. It is likely that donor confidence in CMAA will be difficult to establish and that its capacity to promote adequate coordination and planning for the sector will be limited.

This situation can be interpreted as symptomatic of the broader relationship between the Government and international agencies. The Government's priority is to ensure political control of institutions under its authority, especially since such control has often been contested on political and/or party lines. The donor agencies are concerned (to varying degrees) with the effectiveness and accountability of the programmes they are supporting. Many of the conditions imposed by the donors may be resented and/or resisted. For example, two major (donor-promoted) evaluations of CMAC undertaken during 2000 are not even mentioned in the CMAC 96-page annual report.²¹ Developments over CMAA can be interpreted as government accommodation of, but also resistance to, donor demands.²²

Such matters may not seem to be immediately relevant to such questions as participatory humanitarian mine action. However they do illustrate the constraints on appropriate policy development in this area. Historically speaking, neither CMAC, MAG nor HALO Trust is well placed to support the type of participatory initiatives generally proposed. The primary rationale for all these agencies has been mine and UXO clearance. They have also been pushed, with varying degrees of enthusiasm or reluctance, into involvement with "mine awareness" programmes. Mine awareness programmes have had a chequered history, encouraging many within these agencies to believe that they should stick to demining. The uncertain usefulness of many mine awareness programmes can also generate resistance to further involvement with social questions. This can be unfortunate since social and economic analysis is central to any attempt to establish the usefulness of demining activities.²³

In Cambodia it would appear that mine action agencies have only recently come under pressure to pay serious attention to the question of who is really benefiting from their programmes (as well as growing questioning of the cost-effectiveness of the programmes). This is indeed a central question, and needs perhaps to be addressed as a matter of priority. The activities which might move such agencies to greater involvement with community-based activities, whether through changes in mine awareness programmes or through moving into new territories of victim support or community development, can be seen to have lower priority.

These mainstream mine action agencies are indeed very reluctant to become involved with mine victim assistance. MAG for example forcefully

expressed the view that this was the responsibility of other agencies.²⁴ This perspective is understandable; there are indeed many other agencies working with mine victim support and there is no inherent reason why mine action agencies should take on whole new areas of work. It does mean however that it is more difficult to promote an integrated approach; it also means that without excellent consultation and communication mechanisms the demining agencies will remain isolated from exposure to the needs and priorities of mine victims themselves.

The scope for community participation in mainstream mine action programmes in Cambodian circumstances is therefore extremely limited and will doubtless remain so for the foreseeable future; we should turn perhaps to programmes of mine victim support, where the ground might be expected to be more promising.

MINE VICTIMS AND MINE VICTIM SUPPORT

There appears to be an almost universal view in Cambodia amongst those working with the disabled and in mine-related activities that support for mine victims should not be separated programmatically from support for people suffering from other types of disability—not least because a high proportion of disabilities are anyway also related to the three decades of conflict. For example polio victims, who may number as many as landmine victims, owe their condition to the fact that only minimal health services have been available during three decades of conflict and impoverishment. This makes a good deal of sense; any interventions in support of mine victims, including those motivated by implementation of the Ottawa Convention, need to take this into account.

Available statistical information on the overall situation of people with disabilities in Cambodia is a good deal more confused and contradictory even than information on mine victims. Surveys undertaken by the National Institute of Statistics for the Ministry of Planning give overall figures of people with disabilities of 310,791 in 1996, 202,930 in 1997 and 169,038 in 1999.²⁵ The following breakdown, which of course should be treated with caution, is given for the 1997 figures:

Cause of disability	Male (%)	Female (%)
Illness/disease	28	35
Congenital	20	34
War or conflict	18	2
Landmine	11	2
Accident	14	12
Other	4	9
Not stated	5	6

Support for the disabled in Cambodia, given the very low levels of development of governmental social services, is almost entirely undertaken by NGOs. A very high proportion of these are international NGOs.²⁶ Where they are Cambodian NGOs they are almost certain to be dependent on international financial support, very often from or channelled via international NGOs.

Most of these projects adopt a welfare-oriented or skills-training approach. Whilst some international agencies are committed in theory to a more participatory approach, they generally find this difficult to achieve in Cambodian circumstances. Autonomous Cambodian disability organizations are limited in number and scope and are mostly based in Phnom Penh; the most prominent include the Disability Action Council, the National Centre for Disabled Persons (NCDP) and the Cambodian Disabled People's Organization. These have conventional management structures and appear to be highly dependent on charismatic leadership and external funding, though NCDP raises some funds from marketing handicrafts.

This study does not claim to have investigated all agencies working with or for disabled people in Cambodia—far from it. However from available documentation and from discussion with several agencies there was little evidence of community ownership or real participation (as opposed to consultation) amongst NGOs working in support of mine victims and people with disabilities. Even where systematic needs assessment was undertaken (as for example by HI) this was mostly assessment of, rather than by, disabled people.

It would appear that the objective of identifying programmes for involvement in participatory monitoring and evaluation workshops may be

premature. Such initiatives will only really have relevance and resonance when the country is much further down the road of genuine community participation and development. At this stage it may be more appropriate to consider support for strategic initiatives which help to move that process forward.

MINE ACTION IN CONTEXT

Official demining—i.e., demining by the recognized agencies, CMAC, MAG, HALO Trust and RCAF—employs several thousand people and costs perhaps US\$ 20-30 million per year.²⁷ In 2000, 32,186,340 square metres, i.e. 32 square kilometres of land were officially cleared; yet the contaminated area of the country has been estimated at 2,900 square kilometres—though in reality it must be very much greater.²⁸ In other words, at current levels of demining it would take at least a century to decontaminate the country, even allowing for improvements such as better technology.²⁹

Another way of looking at this is that a particular piece of contaminated land at a particular point in time has at best a one per cent chance of being cleared within the next year. In these circumstances it is inevitable that villagers will continue to clear land themselves, despite the risks involved. Moreover anybody dealing with demining in Cambodia must address himself to the reality of such informal demining. A recent study of this issue by HI is a useful reference point.³⁰ Unusually for mine action documentation on Cambodia it incorporates an attempt to view mine action issues from the perspectives of the individuals and communities affected. In so doing it illustrates the differences between such views and the views widely held amongst mainstream mine action stakeholders in Cambodia.

The study's useful emphasis on qualitative information has however been at the expense of quantitative aspects; it is impossible to gauge the extent of "spontaneous demining" from the report, though it is clearly extensive. (In fact "spontaneous demining" is not an appropriate term, with its implications that such activities are decided on the spur of the moment or are not carefully considered; informal demining might be a better term.)

The recommendations in the report are rather tentative, as if the author had the official demining agencies peering over her shoulder and was reluctant to upset them. They nevertheless include:

- organizations working with communities in mined areas should further investigate the possibility of promoting safer practice for village deminers. This could be achieved through mine awareness messages, training sessions, or through the provision of basic equipment or protective clothing;
- mine action organizations should investigate the possibility of using village deminers as resource persons;
- mine awareness programmes targeting high-risk groups such as village deminers should review their original assumptions concerning these people and develop a more receptive approach;
- mine awareness programmes should be revised and developed using a more participatory, community-based approach, so that the messages conveyed are more appropriate and realistic for the intended audience;
- alternative clearance methods should be investigated and piloted to help better meet the needs of rural Cambodian communities for land and resources.

Such recommendations are well founded and deserve support. The study stops short of recommending that informal village deminers should be seen as central to the future of demining in Cambodia, though this is the implication of its findings. It is quite possible that the impact of village deminers is already greater than the activities of the demining agencies—though quantitative information is unavailable. Mainstream demining agencies, through insisting on standards of clearance and risk reduction adopted from European and North American military practice, have persistently ducked the question of the types of intervention that would actually be far more effective, and far more cost-effective, in saving lives and returning land to community use. “Maintaining standards,” which intentionally or otherwise leaves expatriates and their agencies almost permanently in the driving seat, becomes a mantra that precludes support for more appropriate and effective interventions. Because donors can also insist on these standards, national agencies are themselves prevented from developing more appropriate policies. Allied to this is the fear amongst mine agencies that promoting activities that reduce rather than minimize risk, even though their overall impact in saving lives is much greater, would

nevertheless leave agencies open to being held responsible for accidents that would inevitably continue to happen. This problem could however be resolved by adequate legal protocols.

It is clear that in Cambodian circumstances giving village deminers appropriate protection and support would save more lives and clear more land, and at less cost, than will ever be possible through official programmes. Acceptance of this fact, which the HI study implicitly recognizes without explicitly acknowledging, could start to transform the mine action scene in Cambodia.

Involvement of deminers based in their village communities could also be a starting point for the “participatory, community-based” approach advocated by the HI report and others. Indeed it would be the only effective way to link mine action to community activity at anything more than a rhetorical level. However it should also be emphasized that working with village deminers would not in itself entail “community participation;” it might however be a start.

It is also possible—though it must be emphasized that in Cambodia we are a very long way from any realization of this—that such community-based initiatives could also be linked to monitoring of support to people with disabilities, including mine victims.

CONCLUSIONS AND RECOMMENDATIONS

It should be clear by now that Cambodia is not the most promising environment for the promotion of participatory monitoring and evaluation of humanitarian mine action. Whilst it would be possible to attempt PME activities with one or other mine action or mine victim programme, the virtual absence of community ownership of such programmes would mean that the process would be unlikely to take root or bear fruit. The outcome would be to add to the list of external agents attempting to impose their blueprints for appropriate activities and behaviour, whilst ignoring the concrete situations and starting points of the very people and communities whose interests are being promoted.

This does not mean that it is a waste of time to try to promote participatory approaches in the field of mine action and mine victim

support. Nor is it a waste of time to promote the broader application of the Bad Honnef Guidelines outlined at the beginning of this report. The question is what type of intervention would be most effective given the current realities of Cambodian society and the current activities of the mine action and disability-oriented agencies working in the country.

For mine action agencies, both national and international, this is largely a question of reviewing the policies and practices which effectively militate against real community participation and a greater degree of effectiveness, efficiency and sustainability for their programmes. In particular this involves reviewing the retention of standards, controls and procedures that can never in practice be devolved to community level. As the HI report illustrates, there is a need for radical reappraisal of the role of village deminers. Instead of being seen as unqualified individuals pursuing inappropriate and unsafe practices, and so undermining the work of the qualified agencies, they should be seen as central actors in demining whose activities should be supported and improved rather than opposed or undermined. To move to this perspective will not however be easy and will doubtless encounter active opposition; it is still a challenge worth addressing. Such changes of policy and perspective can in turn lead in time to a greater degree of community participation, whether in demining or in monitoring and evaluation; without them participatory activities are likely to remain largely at a rhetorical level.

For agencies working with people with disabilities the problems are more familiar to anyone who has tried to move from straightforwardly humanitarian or welfare interventions to a more sustainable or developmental agenda. The problem is if anything greater than with other constituencies since people with disabilities are often isolated within their communities, further prolonging the process of appropriate organizational and institutional development. For international agencies working with disability (in Cambodia the majority) the weakness of civil society in Cambodia means that a long-term approach is required if genuine delegation and handover to autonomous local organizations are to be achieved. The process of devolving control to local individuals and agencies needs to be given the highest priority and sustained emphasis; nevertheless the short-term "exit strategies" beloved by donors and by many international NGOs may be impractical. For Cambodian agencies the issue is often that of transformation from traditional forms of organization and

authority, depending on charismatic leadership, to more decentralized and participatory models.

There is the possibility of supporting limited but strategic interventions in favour of promoting a community-based approach to humanitarian mine action. Like any other such actions though, these need to connect with existing realities and initiatives.

An effective way of stimulating and developing policy amongst mine action stakeholders in Cambodia could be via a policy-oriented workshop which would bring together the strands of participation and informal demining. I am not sure how much exposure has been given to the HI report on “spontaneous demining,” but I believe it could be an excellent starting point for a policy debate which ranges beyond the question of attitudes and approaches to village deminers. The Bad Honnef proposals, though more familiar, would also be a useful reference point.

If there is sufficient interest from key stakeholders (the Disability Action Council, HI, perhaps UNDP, as well as one or two donors) this could usefully bring together interests and agendas that often diverge. It could throw into focus the different perspectives of agencies such as HI (as illustrated in their spontaneous demining report and elsewhere) and the perspectives of the mine action agencies. It could also raise important questions around community engagement—i.e. how much to engage with existing practices with a view to improving or modifying them, and/or how far it is desirable and/or possible to promote other models of community activity. The involvement of village deminers and of unaffiliated mine victims, as well as the usual mine action stakeholders, would be key to the usefulness of such a conference or workshop.

It seems unlikely that such an initiative could be considered to be part of a programme that tests the assumption that PME techniques can enhance the verification of the Ottawa Mine Ban Convention. It would however be part of a process of preparing the ground for the adoption of more genuinely participatory approaches to mine action in Cambodia. As such it would fit with the broader strategic aims underlying the programme.

Notes

1. The Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, which is commonly referred to as the Mine Ban Convention or Treaty, or the Ottawa Convention or Treaty, or indeed the Ottawa Mine Ban Convention etc. The Convention was opened for signature in December 1997.
2. UNIDIR, Project Planning for Participatory Evaluation of Humanitarian Landmine Action, Project Proposal, 2001.
3. For some background on this situation see, for example, J.P. McAndrew, "Aid Infusions, Aid Illusions", Cambodia Development Resource Institute, Working Paper No. 2, 1996; also C. Dammers, F. Firebrace, S. Gibbs, K. Keo, S. Ly and S. Men, "Differing Approaches to Development Assistance in Cambodia: NGOs and the European Commission", INTRAC/Cambodian NGO Forum, 1996. Some historical background is given below in the section on Government and Civil Society.
4. As recommended in the Bad Honnef Guidelines and elsewhere a "mine" and "mine victim" should be taken to relate to any stationary explosive device, and should automatically include UXO.
5. This figure is quite widely quoted, though I am unsure of its origins. It has presumably been extrapolated from figures on mine accidents. The *Landmine Monitor Report 2001* gives figures of 16,148 killed and 33,219 injured by landmines and UXO between 1979 and 2000 (ICBL, *Landmine Monitor Report 2001*, Washington, DC: ICBL, 2002). Although many of these injured will subsequently have died (of natural or other causes), there must also be thousands of people injured before 1979 who are still alive. It is also probable that monitored figures are less than actual ones, at any rate during the early years of this period. An estimate of 40,000 currently disabled by landmines/UXO may therefore be quite reasonable. Other sources seem less credible: for example the National Institute of Statistics of the Ministry of Planning gives a figure of 16,290 for those disabled by landmines in its *Cambodia Socio-Economic Survey 1997*, though also cites 25,805 disabled "due to war or conflict". For the incoherence surrounding much published statistical information on Cambodia please see the section on Mine Victims and Mine Victim Support.
6. ICBL, *Landmine Monitor Report 2001*. The affected area appears to be a serious underestimate; see the section on Mine Action in Context.

7. See R. Bottomley, "Spontaneous Demining Initiatives: Mine Clearance by Villagers in Rural Cambodia", final study report, Brussels/Phnom Penh: HI Belgium, January 2001. This interesting and groundbreaking document is discussed below in the penultimate section of this report, "Mine Action in Perspective".
8. Cambodia Mine/UXO Victim Information System, monthly mine/UXO victim report, September 2001. These figures are based on monitoring by Red Cross volunteers whose access to comprehensive information is uncertain. These figures differ slightly from those presented in the *Landmine Monitor Report 2001*.
9. Figures taken from *ibid*.
10. Figures for this table only are taken from ICBL, *Landmine Monitor Report 2001*.
11. For a more detailed breakdown on mine victims in Cambodia please see Annex.
12. See D.P. Chandler, *The Tragedy of Cambodian History*, New Haven and London: Yale University Press, 1991.
13. The end of the Khmer Rouge was the result of defections to the government, internal assassinations and power struggles, and the ousting, internal trial (for the assassination of a colleague), imprisonment and death from heart failure of Pol Pot in April 1998. None of the most notorious leaders of the Khmer Rouge has been brought to justice.
14. An extremely useful account of the contrast between the realities of Cambodian politics and the wishful thinking of much of the international community can be found in P.P. Lizée, *Peace, Power and Resistance in Cambodia: Global Governance and the Failure of International Conflict Resolution*, Basingstoke and London: Macmillan Press/New York: St. Martin's Press, 2000.
15. Disability Action Council/Japan International Cooperation Agency, *Country Profile: Study on Persons with Disabilities (Cambodia)*, Phnom Penh: Disability Action Council, February 2001.
16. These figures are taken from ICBL, *Landmine Monitor Report 2001*, Section 7, where the presentation is however somewhat confused. The income figure for 2000 includes funds brought forward from 1999; assuming funds brought forward have been included as income for previous years the table showing CMAC income will be significantly distorted, though it would help to explain why over seven years income appears to have exceeded expenditure by about US\$ 9 million. The tables show CMAC annual income and

expenditure declining by about 25 per cent between 1997 and 2000, which does not explain the drastic staffing cuts and the acuteness of the financial crisis in 2000. However according to Heng Rattana, Deputy Director of CMAC, the overall budget had been US\$ 16 million before being reduced to US\$ 7,5 million (personal interview). It is possible that the figures in the *Landmine Monitor* exclude capital costs.

17. There seems to be a growing realization that the huge amounts of money poured into “mine awareness” programmes over the years may have had very limited impact. This realization however appears to be based on long years of experience and observation by demining agencies rather than on any attempts to study the situation systematically, which would involve consideration of behavioural change amongst those targeted. The promotion of “mine awareness” is often based on the assumption that mine-affected communities, especially if they lack formal education, have limited capacity to understand the risks associated with unexploded mines and ordnance, and that demining agencies have a much better understanding of this issue and of appropriate behaviour for mine-affected communities. In fact the reverse would often seem to be the case. See for example C. Dammers, *Evaluation of the Community Awareness Programme of the Mines Advisory Group, Xieng Khouang Province, Lao People's Democratic Republic*, Oxford: INTRAC, 1999.
18. According to D.P. Guéret and Thol Hul, *Cambodian Mine Action Centre: Socio-Economic Evaluation*, Phnom Penh: CMAC, July 2000, 29 per cent of land demined by CMAC in 1998 was improperly used, or subject to dispute, though the situation subsequently improved. However the realities of the use and ownership of demined land have never been seriously researched, and the estimates in this report may be optimistic.
19. These figures are based on a personal interview with CMAC Deputy Director Heng Rattana. The *CMAC Annual Report for 2000* refers to the lay-off of 1,937 staff. The figure of 2,920 staff laid off includes staff laid off during 1999, some of whom may have been reinstated during 2000. See also footnote 16 above.
20. Cambodian Mine Action Centre, *Annual Report 2000*, Phnom Penh: CMAC, 2001.
21. One was Guéret and Thol Hul, op. cit. See note 18 above. The other evaluation, on institutional reform of CMAC, could not be obtained.

22. For a persuasive description of the dynamics between Cambodian politicians and international agencies, see Lizée, *op. cit.* See note 14 above.
23. Other perspectives inhibit appropriate policy development. MAG for example undertook to provide documentation on their programme for this study, but then decided not to do so on the grounds that competition with commercial companies for funding meant that such information had to be regarded as confidential, even if provided on a non-attributable basis to a disinterested United Nations study.
24. Interview with Archie Law, MAG Cambodia Country Director, November 2001.
25. These figures, together with several pages of a corresponding detailed breakdown of them, are reproduced in Disability Action Council/Japan International Cooperation Agency, *Country Profile: Study on Persons with Disabilities*. This extreme, even bizarre, discrepancy is noted but no comment is made on it. In reviewing official information on Cambodia one often has the impression that, rather as in the political arena, a good deal is produced primarily for the sake of appearances, and that this, unwittingly or otherwise, may obscure the underlying reality. It is possible that the authors of the study would not have thought it appropriate to question official statistics, no matter how incoherent.
26. See for example the 47 NGOs listed as working with people with disabilities in Disability Action Council/Japan International Cooperation Agency, *Country Profile: Study on Persons with Disabilities (Cambodia)*. Virtually all these agencies appear to be international; those which from their name may be Cambodian-managed are almost certain to be funded externally. Although it is not always clear what proportion of the work of the agencies listed is in support of the disabled, this report gives an approximate institutional and financial overview of work with disabled people in Cambodia.
27. See above; it is not possible to quantify the costs of RCAF demining.
28. The figure of 2,900 square kilometres is taken from the *Landmine Monitor Report 2001*. Presumably this only refers to areas currently considered suitable for clearance; if forested areas and all UXO-affected areas were included the figure would be a very great deal larger. The Level One Survey currently under way found, after covering about 40 per cent of the country, that 1,021 villages were contaminated (out of 2,395 surveyed). This included the most heavily

contaminated parts of the country. The results of this survey should substantially revise existing estimates.

29. Ian Bullpitt, in "Summary of Discussions and Recommendations Relating to National Strategy and Management of the Mine Action Sector with Cambodia in the Short and Long Term Beyond 2000", CMAC internal report, Phnom Penh, November 2000, gives an estimate of 50 years, though the basis for this is not known. This report is frequently quoted in the *Landmine Monitor Report 2001*. Unfortunately it did not prove possible to get hold of a copy.
30. Bottomley, op. cit. See note 7 above.

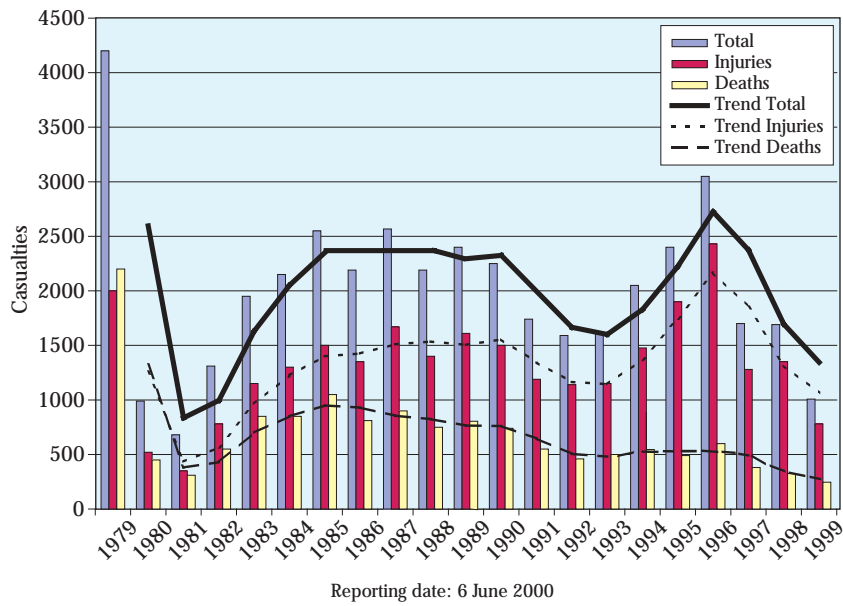
ANNEX: MINE VICTIMS IN CAMBODIA

The author would like to thank the CMVIS (Cambodia Mine/UXO Victim Information System) for assistance with all this information, with the exception of the "Profile of a Village Deminer" where thanks are due to Handicap International.

- Deaths and Injuries, Long Term Trends: 1979-1999
- Mine and UXO, Long Term Casualty Trends: 1979-1999
- Profile of Village Deminer
- Casualty Trend 1999-2001: Reported Mine/UXO Casualties by Month, January 1999-September 2001
- Overview of Mine/UXO Incidents, October 2000-September 2001
- Cause of Incident by Population Group, October 2000-September 2001
- Casualty Causing Explosive by Population Group, October 2000-September 2001
- Activities by Type of Explosive, October 2000-September 2001
- Mine/UXO Incidents by Terrain Type, October 2000-September 2001

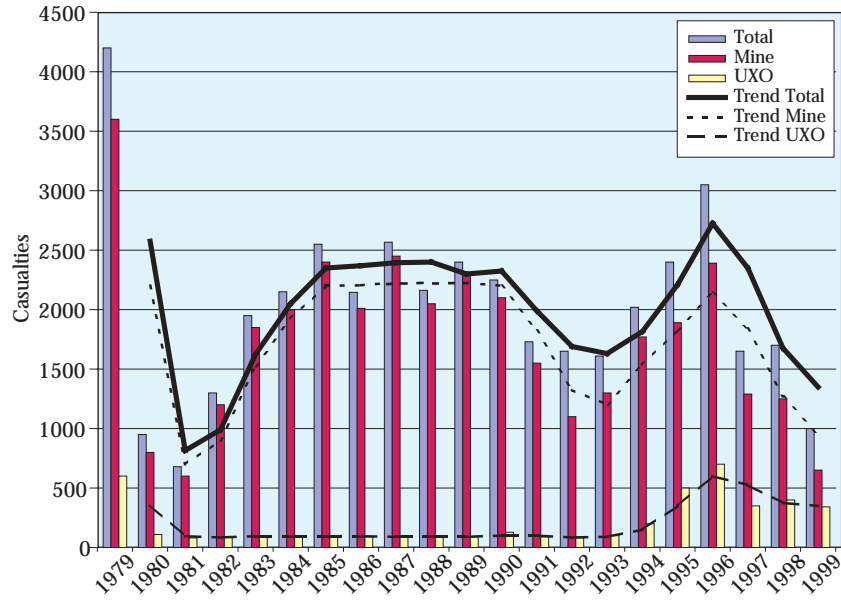
Deaths and Injuries, Long Term Trends: 1979-1999

Total Deaths	14,299	34.1%
Total Injuries	27,694	65.9%
Total Casualties	41,993	100.0%



Mine and UXO, Long Term Casualty Trends: 1979-1999

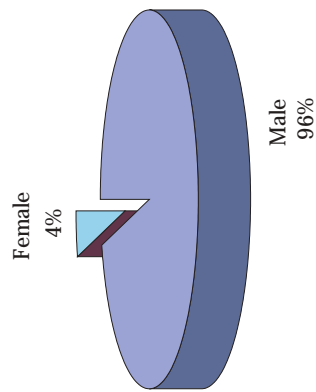
Total Mine	36,329	86.5%
Total UXO	4,493	10.7%
Total Unknow	1,171	2.8%
Total Casualties	41,993	100.0%



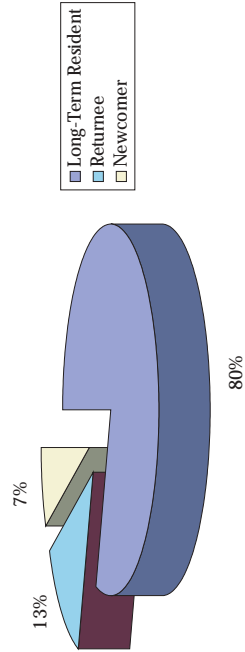
Reporting date: 6 June 2000

Profile of a Village Deminer

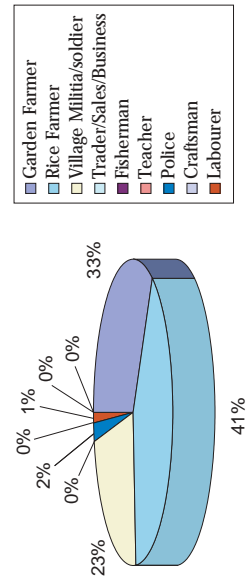
Sex



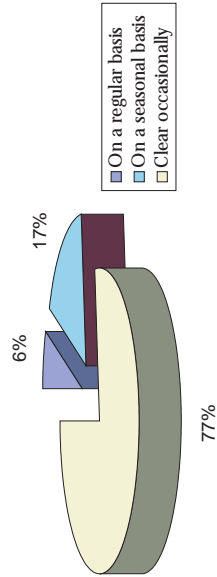
Village Status



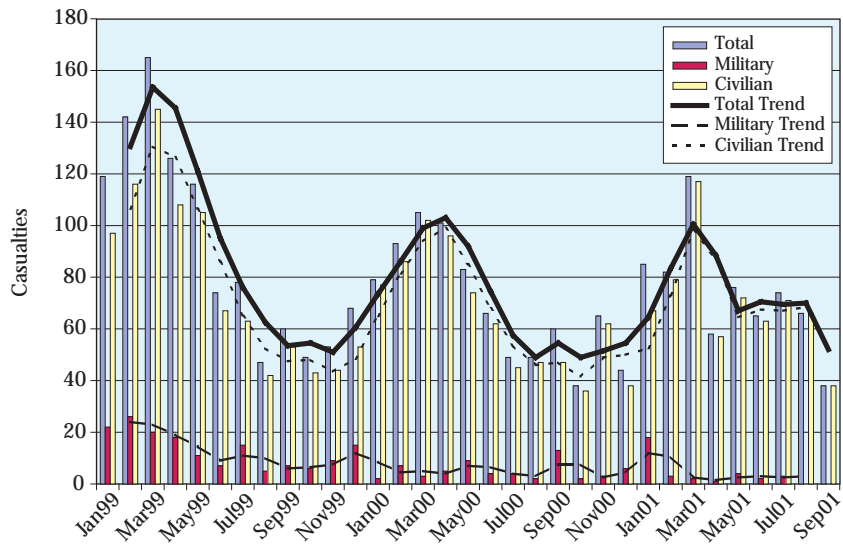
Main Occupation



Regularity of Demining Activities



Casualty Trend 1999-2001: Reported Mine/UXO Casualties by Month
 Reporting Period: January 1999-September 2001

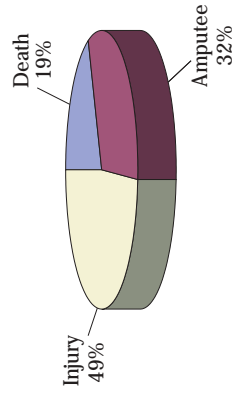


Reporting date: 24 October 2001

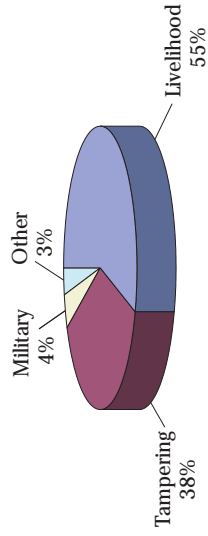
Overview of Mine/UXO Incidents
Reporting Period: October 2000-September 2001 (12 months)

Total Number of Casualties during Reporting Period: 810

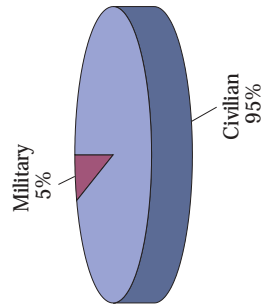
Casualty Types



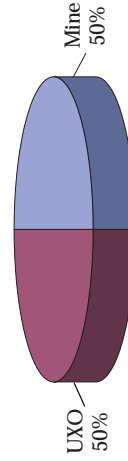
Cause of Casualty



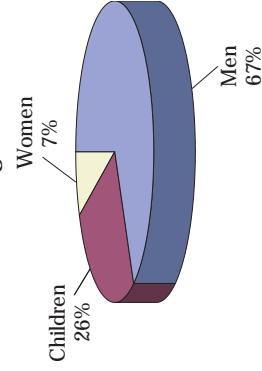
Military vs. Civilian



Mine/UXO Distribution



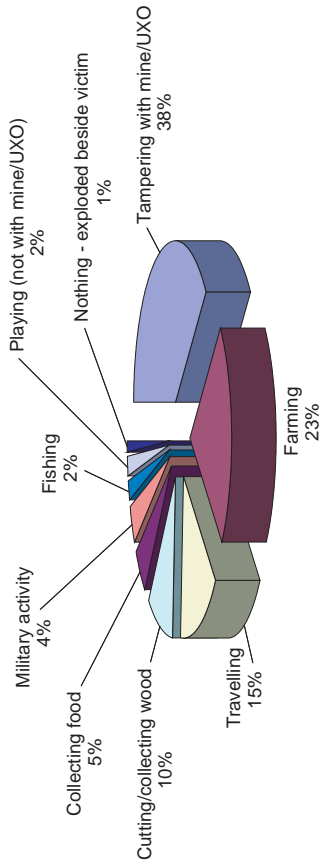
Population Groups
Children = Age less than 18



Note: Data may be incomplete/unavailable for some categories.

Cause of Incident by Population Group
 Reporting Period: October 2000-September 2001 (12 months)

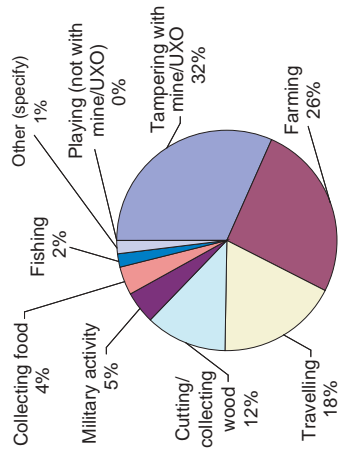
Cause of Casualty in Total Population



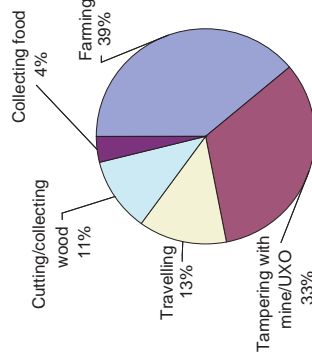
No. Incidents during Reporting Period:	
Total:	810
Men:	544
Women:	57
Children (<18 yrs):	209

Note: Data may be incomplete or unavailable for some categories.

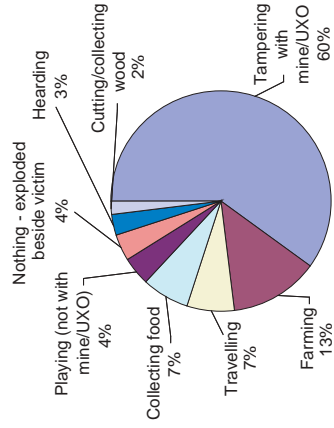
Men



Women



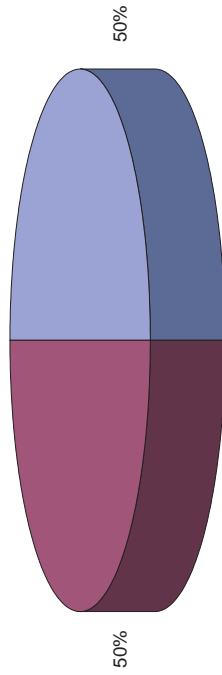
Children



Casualty Causing Explosive by Population Group
 Reporting Period: October 2000-September 2001 (12 months)



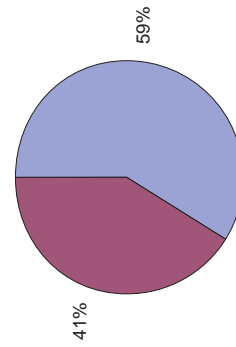
Cause of Casualty in Total Population



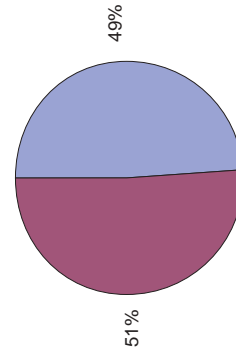
No. Incidents during Reporting Period:	
Total:	810
Men:	544
Women:	57
Children (<18 yrs):	209

Note:
 Data may be incomplete or unavailable for some categories.

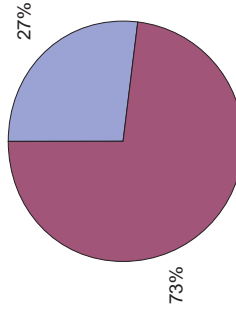
Men



Women



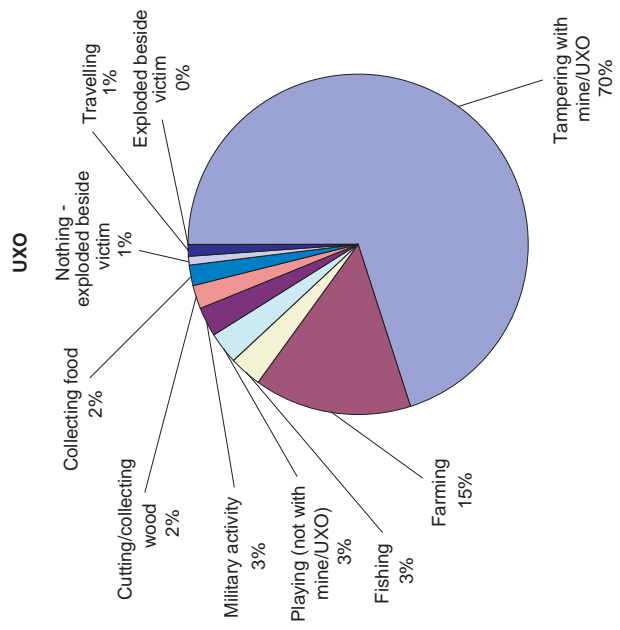
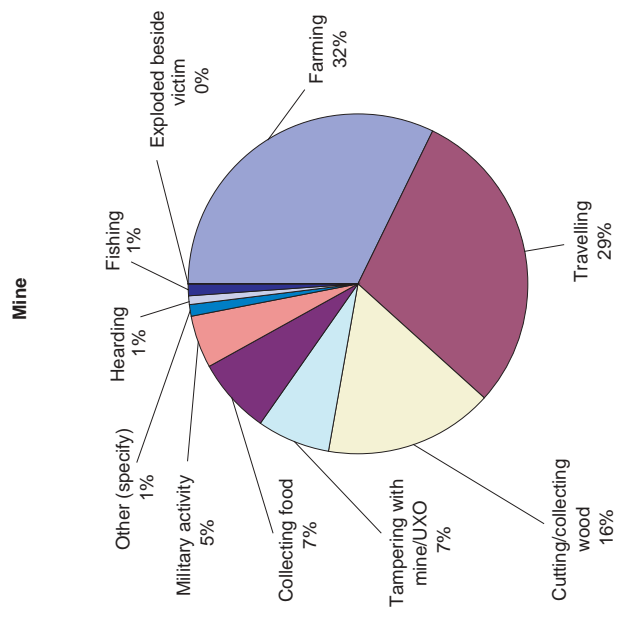
Children



Activities by Type of Explosive

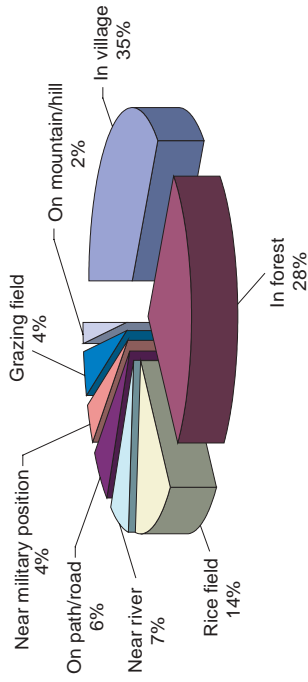
Reporting Period: October 2000-September 2001 (12 months)

Number of Incidents during Reporting Period:	
Total:	810
Mines:	403
UXO:	407



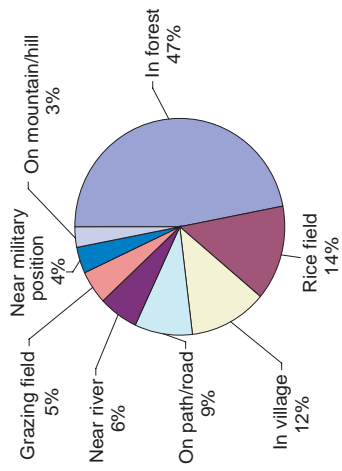
Mine/UXO Incidents by Terrain Type
 Reporting Period: October 2000-September 2001 (12 months)

All Explosives



Number of Incidents during Reporting Period:
 Total: 810 Mines: 403 UXO: 407

Mine



UXO

