

**Evaluation of the
Programa de Educação para a Prevenção de Acidentes por
Minas (PEPAM)**

**The National Coordination of Education Activities to Prevent
Accidents by Mines and Other Explosive Devices**

Republic of Mozambique

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Acronyms

ACFI:	Action Contre le Faim.
FADM:	Forças Armadas de Mozambique.
FHI:	Food for the Hungry International.
GoM:	Government of Mozambique.
HI:	Handicap International.
MRC:	Mozambican Red Cross.
NGO:	Non-governmental organisation.
NMCC:	National Mine Clearance Commission.
NMCI:	National Mine Clearance Institute.
PEPAM:	Portuguese acronym for the National Coordination Programme of Education Activities to Prevent Mine and UXOs Accidents.
PS:	Provincial Supervisor.
PT:	Pedagogical Technician.
UNICEF:	United Nations Children's Fund.
UNHCR:	United Nations High Commission for Refugees.
UXOs:	Unexploded Ordinances.
ZIPs	Zonas da Influência Pedagógica or school districts

Executive Summary

Years of conflict have left hundreds of thousands of unrecorded landmines and explosives throughout Mozambique. While precise figures are unavailable, mine clearance agencies estimate that the number of landmines in country ranges between 350,000 and 500,000. In May 1995, the Government of Mozambique (GoM) established the National Mine Clearance Commission (NMCC) to address the escalation of landmine accidents, which had the central role of creating policy direction and coordinating mine clearance operations in Mozambique. Handicap International (HI), a French NGO, has taken the lead in coordinating the public awareness campaign since 1995. The awareness campaign, called the National Coordination Programme of Education Activities to Prevent Mine and UXOs Accidents (Portuguese acronym is PEPAM), was designed to inform, change attitudes, and educate the public about preventative actions to take in the event that a landmine/explosive is discovered or suspected. Further, the goal of the programme is to develop national capacity by building, strengthening, and making technically autonomous a network of institutions and organisations involved in educating Mozambicans about the risks and dangers of landmines and explosive devices.

Correspondingly, a new government institution, the National Mine Clearance Institute (NMCI), was created in June 1999 to assume the responsibility of managing and coordinating mine activities, including the public awareness educational campaign presently executed by HI. From January 2000, the NMCI will be responsible for managing and coordinating mine activities in Mozambique, building on the network and activities established by HI.

This evaluation assesses the 1) qualitative impact of mines awareness actions on target beneficiaries, 2) tools used by the programme (educational and pedagogic materials, drama skits, radio), 3) programme methodology, 4) data gathering process regarding mine accidents and suspected areas, and 5) liaison work that has evolved through the programme. PEPAM has three components, and they include 1) Mine Awareness Campaign Activities, 2) Mine Education Activities, and 3) Data Collection. The process through which PEPAM implemented a) each component, and b) the collaborative effort with various government and non-governmental partners is reviewed. The findings from each are presented in this report.

Mine Awareness Campaign Activities

The development of communication messages and tools used in the mine awareness campaign is explored as well as the process through which the staff trained partners to sensitise rural populations about mines/explosives. The PEPAM staff trained over 6,064 field agents and formed over 2,848 mine committees to deliver campaign messages. Furthermore, in 1998, the inventory of educational materials included three different types of posters, three cloth banners for field agent use, a pamphlet, and an agent manual. The HI staff also used three media to *transmit messages* about the dangers and risks of mines. They include 1) lectures through community activists, 2) plays and drama skits, and 3) the radio. These media – primarily visually based – were chosen because illiteracy is notably high in rural Mozambique. It is not possible to ascertain the exact number of

lectures extended, but it is estimated that approximately 7,030 lectures may have taken place. Over 1,521 plays were performed, and an overwhelming majority believed that theater was the “best” and “most powerful” medium to transmit mine messages. 500,000 pamphlets, 100,000 posters, and 5,000 field agent manuals were purchased, and it is estimated that 85 per cent of these materials have been distributed.

Mine Education Activities

In collaboration with the Ministry of Education, the HI staff created a) a manual that teachers could use as a guidebook and b) teaching aids that teachers could utilize during their routine lessons. The teaching aids include 1) a storybook featuring the cartoon character “Rita” which portrays what a child could do if (s)he found a mine; 2) a “toolbox” designed to assist in instructing Portuguese and mathematical concepts; and 3) blank pages and sequence cards created to stimulate creativity while teaching mine messages. 5,000 teacher’s guides, 1,000 “tool box” and sequence cards, 50,000 “Rita” storybooks, 20,000 blank sheets, 10,000 game boards were purchased, and it is estimated that 90 per cent of these educational materials have been distributed. Unfortunately, school was out of session in three of the six provinces visited, and so the evaluation information collected does not permit a thorough assessment of tools used.

HI staff also provide training to teachers, and approximately 2,313 education professionals received through PEPAM. Training lasts three days, normally conducted over a weekend (Friday through Sunday morning). Roughly 25-30 teachers are trained at the same time. In addition to organizing and delivering training, the HI staff also extend two distinct forms of technical assistance which are a) attending regular meetings held at the Zonas da Influência Pedagógica (ZIPs) or school districts; and b) conducting observations of workshop participants in their classrooms. While it was not possible to estimate the number of hours that Pedagogical Technicians (PTs) spend providing technical assistance, a conservative estimate of their time allotted to this activity ranges between 20 to 40 per cent. It was noted that the period in which training takes place, is ill-suited. Specifically, the training takes place during the school semesters, and this training period prevents some teachers from finishing the entire cycle outlined in the manual.

Distributing Materials

The process of distributing supplies to partners is established and based on planned field activities among other criteria. In the beginning of 1999, HI experienced difficulties distributing the mine awareness and education materials. This is documented in the report.

Data Collection

The process through which mine-related accidents/hazardous areas were recorded, and underlying factors influencing the data collection system’s efficiency are also elaborated. Essentially, a data collection form exists which is filled out by a field agent. When the HI staff member receives a form indicating mine discovery, he reconfirms personally the location. The HI staff person then communicates the discovery to mine removal teams operating in and/or around the area(s). Significant factors obstruct the flow of

information and/or data accuracy, and these inadequacies warrant further investigation of the effectiveness of the system.

The Collaborative Effort

HI's collaboration is comprised of multiple parties, and they include the National Mine Clearance Institute (NMCI), Administration, Ministries of Education and Health, Mozambican Red Cross, the Police, Ministry of Social Welfare, and community leaders/members. Initially, HI did not have funds for training activities, and hence the staff were required to convince and rely on NGOs to cover these costs. These circumstances influenced significantly the manner in which they could activate links with partners. HI's programme approach appeared passive and unmoving rather than urgent, proactive, and spirited. In addition, in 1998, many of the agents trained left the field, creating an abyss in programme activities. It was through this event that the HI staff realized that they needed to develop even stronger links with government institutions and traditional community leaders/authorities. In March 1998, the entire HI team met to design a new strategy regarding partnering with organisations and governmental institutions, which ultimately resulted in the establishment of a cohesive network. Several factors influencing the strength of the collaborative process include support from the top, different programme priorities, ideologies, and outlooks on goals, bureaucracy, similarity in organisational structures, and a common philosophy about community development.

Community Awareness

Information was collected through 1) a survey, 2) in-depth interviews with partners/programme staff, and 3) an existing database about the extent of mine awareness at the community level. The sample of those interviewed consists of approximately 60 per cent male, the majority (64 per cent) of whom are married. Twenty-two per cent the respondents have no formal education, and the average age of the sample is 33 years old (standard deviation of 15 years). 100 per cent agreed with the statement that "mines are dangerous, 80 per cent disagreed that "moving close to a mine is not so bad", and 93 per cent agreed that explosives are dangerous. Further, an overwhelming majority of those surveyed stated that they would consult their local authorities and/or traditional community leaders if they were to find a mine. Overall, it seems that those sampled have a clear idea of the steps to take in the event of discovering a mine.

Interview data with field partners also revealed three categories or levels of consciousness, and they include 1) no consciousness, 2) partial consciousness, and 3) complete consciousness. Of the six provinces visited during the evaluation, it appeared that only one province (Inhambane) had reached the complete consciousness level. The remaining five provinces fell into the partial consciousness category. It should be noted that there were several factors which influenced community ownership over the mine situation and they are delineated in the report. The probability of children being affected by landmines is also high, as the number of child victims has increased over the period under review. Moreover, the most common activities in which mine victims were engaged include working in the "machamba" or farming, hunting, collecting wood for cooking and house construction, and traveling.

Recommendations

This report includes recommendations that are intended to render current activities more effective, taking into consideration that fewer financial resources may be available. Only the most notable recommendations are presented in this summary:

- Mine awareness campaign activities and education should continue for an additional year before phasing out mine awareness/education activities;
- T-shirts should be used frugally and particularly by the agent transmitting the message(s) only;
- Theater should accompany a tool or an educational material that could be used later to remind people and ultimately influence beliefs;
- Budget permitting, manuals created for mathematics, natural science, and history classes should be developed;
- Less time should be spent on training educators about the dangers of mines, and more intensive interaction with educators is suggested;
- All training targeted for education professionals should occur during the months of December and January or during vacation months; and
- The evaluation information from interviews suggests that the data collection system may require significant financial resources to revitalize and maintain for long-term operation. Creating a separate endeavor concentrating exclusively on collecting valid information in a systematic manner would be most favorable.

Two alternative paths to explore while continuing mine awareness activities are also discussed.

The National Coordination Programme of Educational Activities to Prevent Mines and UXOs Accidents in Mozambique (Portuguese acronym is PEPAM)*Context of Programme Inception and Implementation*

Years of conflict have left hundreds of thousands of unrecorded landmines and explosives throughout Mozambique. While precise figures are unavailable, mine clearance agencies estimate that the number of landmines in country ranges between 350,000 and 500,000.

In May 1995, the Government of Mozambique (GoM) established the National Mine Clearance Commission (NMCC) to address the escalation of landmine accidents. The NMCC had the central role of creating policy direction and coordinating mine clearance operations in Mozambique. This mandate embraced both public awareness/education about landmines and mine clearance activities.

While mine removal efforts are expansive and have been undertaken by various organisations, Handicap International (HI), a French NGO, has taken the lead in coordinating the public awareness campaign since 1993. Before 1995, HI worked primarily with the disabled, developing prosthetics and self-help initiatives. However, with the high number of mine related accidents in 1995, the United Nations High Commission for Refugees (UNHCR) persuaded HI to coordinate an awareness campaign designed to inform, change attitudes, and educate the public about actions to take in the event that a landmine/explosive is discovered or suspected. HI's involvement in the awareness campaign was logical, as the campaign represented a preventative measure, reducing a) the need for prosthetics and b) the number of disabled persons in Mozambique.

Correspondingly, a new government institution, the National Mine Clearance Institute (NMCI), was created in June 1999 to assume the responsibility of managing and coordinating mine activities, including the public awareness educational campaign presently executed by HI. Specifically, the NMCI's mandate is to a) define and prioritize policies and b) coordinate and/or manage all activities related to mines in Mozambique. Hence, from January 2000, the NMCI will be responsible for managing and coordinating mine activities in Mozambique and will build on the network and activities established by HI.

Overview of the Report

The first part of this report presents the evaluation objectives and essential information about the National Coordination Programme of Educational Activities to Prevent Mines and UXOs Accidents in Mozambique (PEPAM). A brief description about how the programme emerged follows. The report describes each programme component, including mine awareness, mine education, and data collection. Each section presents the history of tools development, training processes, and an assessment of the tools used and data collection system. The following section explores the nature of the collaborative

effort that HI has with different partners and the various factors influencing its effectiveness. In addition, the extent to which some communities demonstrated a strong awareness about mines is examined. The final section of this report offers recommendations to improve programme services.

The Evaluation Framework

The process evaluation conducted has the following objectives to:

- Assess the qualitative impact of mines awareness actions on target beneficiaries;
- Assess the tools used by the programme (educational and pedagogic materials, theater, radio);
- Evaluate the programme methodology;
- Examine the data gathering process regarding mine accidents and suspected areas; and
- Assess the liaison work that has evolved through the programme.

For additional information about the evaluation protocol (e.g., the terms of reference, methodologies used, questionnaires developed to collect data, analysis, and factors influencing the evaluation) please refer to Appendix 1.

This report presents an investigation of the process through which the programme raised awareness about the dangers and risks of mines/explosives in Mozambique since 1995. It should be noted that PEPAM is unique in structure and programme approach, and this document contains illustrative information about experiences and lessons learned which may be useful for others (NGOs and/or government institutions) undertaking mine awareness activities. Finally, this report includes recommendations that are intended to render current activities more effective, taking into consideration that fewer financial resources may be available in the future.

Programme Goal and Objectives

The National Coordination Programme of Education Activities to Prevent Mine and UXOs Accidents (Portuguese acronym is PEPAM) aims to develop a national capacity by building, strengthening, and making technically autonomous a network of institutions and organisations involved in educating Mozambicans about the risks and dangers of landmines and explosive devices.

To fulfill the above goal, the programme aims to achieve the following objectives:

- To develop a network of partners to carry out awareness and education activities regarding the dangers of landmines and explosives, which includes training their field agents and education professionals, supplying educational materials, and provisioning technical assistance while undertaking such activities;
- To coordinate the communication among all partners involved in mine awareness activities;
- To develop a network of partners to gather information regarding mine-related accidents and suspected areas/zones. This information will be used to support mine removal efforts and/or studies exploring the socio-economic impact of mines/explosive devices;
- To develop a network of local partners to support the mine removal activities; and
- To support the NMCI in developing a capacity to coordinate mine awareness and education activities.

PEPAM's Activities and Collaborative Effort

This section presents a detailed description of the programme's three components. Specifically, they include:

1. Mine Awareness Campaign Activities;
2. Mine Education Activities; and
3. Data Collection.

After the review of each programme component, a section presenting the history and nature of the collaborative effort with different partners follows. In the final part of the report, the extent to which some communities demonstrated a strong awareness about mines is examined.

Mine Awareness Campaign Activities

This section explores the development of the communication tools used in the mine awareness campaign. Further, the process through which the staff trained partners to sensitise rural residents about mines/explosives will be delineated. An analysis of the effectiveness of the a) different tools used and b) media whereby messages were channeled through are also presented.

Mine Messages

Though a total of eight mine messages were transmitted through various messages, they fall into two distinct categories which are intended to a) increase public *knowledge* about

mines/explosives; and consequently b) influence public *behaviour* in the event of mine/explosive discovery/accident/suspicion.

First, the HI staff developed what they considered “common sense” messages to inform the public about what mines/explosives are, what they look like, and their negative effects. Within this category, educational materials drew attention to two different types of mines (i.e., anti-personal and anti-tank) and unexploded ordinances (i.e., bullets, grenades, rockets). These informational type materials took on various forms (e.g., posters, cloth flags used during lectures, and pamphlets). The central message(s) used were simple and practical. For example, “don’t get close” or “signs of the dangers of mines” were used for mines, and “don’t touch” for explosives.

Second, several educational materials were used to explain 1) four steps one takes in the event of mine discovery, 2) how to avoid areas where mines were most likely to be found, and 3) the different signs to “flag” areas where mines are suspected and/or present. Specifically, the four steps to take in the event of mine discovery are: Stop, walk back, put up a sign, and tell someone about the mine discovery. Moreover, the areas where one could suspect mine presence include old trails, old structures (e.g., military camps, bridges, abandoned houses), and old fields with animal carcasses. The different signs one may erect once a mine has been discovered/suspected include two crossed sticks, a large branch with many leaves, a pile of rocks, and/or the danger sign with a skull colored red and two crossed bones.

Developing the Communication Tools

The HI staff created simple tools, so that field agents would have few difficulties transmitting the basic message(s) to rural populations. At the inception of programme activities, two different posters, a pamphlet, an agent manual, and a T-shirt comprised the bulk of the materials offered through HI. The HI staff developed these instruments, and their appropriateness was evaluated extensively over six months. Specifically, through regional workshops, the HI staff, or Provincial Supervisors (PSs), conducted lectures as a means of practicing how they could train others. This exercise enabled the PSs to adapt training techniques to accommodate different audiences. As a result of the evaluation/training workshops, it was realized that the first set of posters were too large, as many PSs and agents were “hiding behind them [the posters].”

In addition, HI-Maputo staff solicited the field staffs’ opinions about what kind of education materials would be most appropriate for field agents conducting lectures in rural areas. Cloth flags were most appropriate, as paper posters would not resist harsh rural conditions. The pamphlet was also changed, as the messages “were not logical”, or the four preventative actions to take in the event of mine discovery were not sequential. The posters also “had too many messages on them, causing us [the staff] to fold the poster in half while talking to different communities.”

Hence, through the workshops and field experiences, the HI staff were able to use this information to alter the size of the posters, modify the pamphlet, develop the idea of cloth flags for field agent’s use, and simplify the message(s) on each poster. In 1998, the

inventory of educational materials expanded and included three different types of (comparably) smaller posters, three cloth flags for field agent use, and a revised pamphlet.

Training Field Partners

Once a partner has been identified, the partner selects a field agent to receive HI training. They use the following selection criteria. The field agent must:

- Be committed to community development;
- Active in the community; and
- Have significant experience with the organisation.

Training normally lasts three days, and the PS reviews different topics, including the landmine situation in Mozambique, the objectives of PEPAM, the eight mine messages, how to give a lecture to a community using education materials, presentation of the agent manual, and how to fill out the data collection form in the event of mine discovery. (Please see Appendix 2 for training programme.) The PS also provides a kit of educational materials which includes three cloth banners, pamphlets, a copy of the guidebook, and multiple copies of the three different posters.

Channels Used to Transmit Messages

Illiteracy is notably high (55.5 per cent) in rural Mozambique, and this factor limited HI's ability to transmit messages about mines/explosives, using a written language. Given this constraint, the HI staff resorted to three visually-based media to *transmit messages* about the dangers and risks of mines. They include 1) lectures through community activists, 2) plays and drama skits, and 3) the radio. Each medium is discussed in further detail in this section.

Lectures

Many rural communities were exposed to the mine messages through lectures provided by field agents. The field agent represents someone actively working in a community, including NGO staff, mine committee members, community leaders (traditional chiefs and/or their assistants, religious leaders), government extension workers, the administrative head of a given locality, and teachers.

To provide a lecture, field agents request a meeting with the traditional leader in a village personally or through a letter sent via a village resident. They ask the community leader to assemble the community at a specific time. Usually the field agent performs this task one day before making a speech.

The traditional leader assembles people through multiple ways. For instance, he requests his assistants to inform people in their area(s), and they normally go from door-to-door with the message. Alternatively, the traditional leader will inform all the teachers in a

school to make an announcement. Through this method, children are used as the vehicle through which to communicate with villagers. Interviews with community activists and community leaders indicate that attendance is normally very high for speeches.

While giving the lecture, the field agent normally wears a mine-awareness T-shirt, and the speech lasts between 45 minutes to one hour. (S)He speaks in the local language and uses the educational materials to assist in transmitting the message(s). After the lecture, (s)he distributes pamphlets, and there is a dialogue with the community, whereby the agent responds to questions or collects information about (often suspected) mine presence.” One should note that the lectures are central vehicles for data collection about mines/explosives and/or suspected areas. The question/answer period after the lectures also enables the community activist to a) assess the degree to which the community has understood the messages, and b) reinforce any messages that may still be unclear.

In some cases, a community activist forms a mine committee which is normally comprised of three or four individuals. Mine committee members include but are not limited to the traditional leader of the village, a religious leader, a teacher, and the president of a locality. The evaluation data indicates that the composition of mine committees was not consistent. Overall, however, the mine committee members are those contacted in the event of mine discovery, and they are also responsible for maintaining posters and mine sign posts.

Theater for Development

“Teatro”, or drama skits, is an additional medium through which the mine messages are communicated. Drama was chosen, because it was an appropriate channel given high illiteracy rates. The drama team formation process varies slightly, depending on the community development organisation involved or/and the local context. For instance, in the case of the Mozambican Red Cross (MRC), the drama team is comprised of Red Cross volunteers. Their drama teams attempt to communicate multiple messages apart from the dangers of mines (e.g., AIDS awareness, cholera, hygienic practices, etc). Similarly, independent drama teams exist, and they are contracted (through HI or a governmental partner) to perform mine awareness plays. Normally, HI covers the costs for transportation and meals and also provides the drama teams with educational materials (mine props).

The drama teams travel throughout expansive geographic areas. Prior to performing a skit in a given community, the cast investigates the nature of the mine situation *in that given area*. Specifically, they ask community leaders or other key informants about the nature of the activities in which community members are engaged, and it varies by geographic location and war history. For instance, communities located along the coast, inland, or in/around borders all have different mine-related accidents. For those located inland, one encounters mines while farming, hunting, or fetching wood or water. Towns located in or along borders (provincial/ international) experience high population movement. Communities with high exposure to war activities are most susceptible to mine accidents, as mines are buried along old roads/trails and wells. Hence, mine location and detonation vary according to various contextual circumstances, and the

drama teams inquire about the mine context *prior to performing a skit*. Such preliminary inquiries have powerful effects, as communities may identify immediately with how mines “fit” into *their* realities.

The community members are assembled through the same process as that for lectures/speeches. The skit is presented in the local language, and afterward the team distributes pamphlets and other educational materials. In addition, there is a question/answer period which enables different community members to seek clarification about the dangers of mines.

Radio

The radio was also used as a channel through which to raise awareness about the dangers of mines. HI selected the radio, because those who did not speak and/or read Portuguese could be reached through messages translated into local languages. Specifically, HI provided technicians at the Rádio Moçambique the eight messages to transmit, and the producers developed shows and skits. The HI staff altered slightly the radio programme content based on letters received from listeners throughout the country.

Overall, multiple radio series were developed and produced to raise awareness about landmines. First, in 1996, Rádio Moçambique conducted a programme in Portuguese and 7 national languages. In the following year, HI contracted Rádio Moçambique to produce a six-month release in Portuguese and in 17 national languages. The radio programmes in 1998 and 1999 featured short (15 minute) programmes transmitted in 18 local languages and Portuguese. It is estimated that over 1.1 million people heard about mines through the radio.

Effectiveness of Tools and Media

It is not possible to ascertain the exact number of lectures extended, but it is estimated that approximately 7,030 lectures have taken place. In addition, HI staff have both participated in lectures with field agents and conducted observations of others. The effectiveness of the lectures appeared very high, particularly in rural areas where populations have low literacy rates and do not have access to radios. Specifically, interview and observation data indicated that those providing the lectures are respectful residents based in/around the community. Hence, people *trust* who is delivering the message. Further, data suggests that when mine victims and/or those whose relatives have suffered the effects of mines are present during the lectures, the community’s ability to comprehend the messages is heightened significantly. Therefore, the presence of a victim during lectures endorses the messages transmitted, thereby strengthening the audience’s understanding or making the concepts a reality.

In addition, the T-shirts work most effectively when the agent was wearing them while delivering speeches. When they are distributed in mass quantities for everyday use, however, the mine awareness message becomes diluted and people fail to “respect the symbols [crossed sticks and skull] and the mine message.”

An overwhelming majority of those interviewed stated that theater was the “best” and “most powerful” medium to transmit mine messages, as it “brings life to the danger”. However, this medium is comparably more expensive and is less financially sustainable. One respondent also mentioned that through drama “the message is really strong, but it is quickly forgotten”. Hence, theater should be considered a medium that captures the attention effectively. It does not, however, create a lasting awareness, and so it should be used to endorse a tool (e.g., poster or pamphlet). For instance, when pamphlets or other educational materials accompany theater, the probability that the population will internalize the message(s) is considerably higher.

Data also suggests that the graphic images in the pamphlets work effectively. Given the high rate of illiteracy and inability of populations to read Portuguese, graphic images work best to communicate a message. Furthermore, the three posters used to transmit messages were also described as “clear” and “attractive”. These tools capture the attention, deliver a simple message, have practical use, and serve as basic aids to raising awareness. It should be known that the posters were repeatedly stolen from public areas. In some provinces, such an event prompted the field agent to work closer with the community, making additional announcements and monitoring posters. This phenomenon is discussed in greater detail in the section discussing the factors influencing community awareness.

Programme Achievements

To date, the PEPAM has accomplished the following activities:

- 5,000 field agent manuals purchased¹;
- 5,000 sets of three cloth banners purchased;
- 100,000 posters purchased;
- 500,000 pamphlets purchased;
- Over 6,064 field agents trained²;
- Over 1,521 plays performed; and
- Over 2,848 mine committees formed³.

Mine Education Activities

This part of the report examines the development of the education tools, including the manual for teachers and teaching aids for children. In addition, the process through

¹ It was not possible to acquire precise estimates regarding the number of educational materials *distributed*, but it is estimated that roughly 85% of that purchased has been distributed.

² The term “field agents” includes all those working actively in rural communities. The different individuals involved include NGO staff, mine committee members, community leaders (traditional chiefs and/or their assistants, religious leaders, government extension workers, teachers, etc). Please note that the people trained are those who attended mines awareness training sessions exclusively.

³ This number does not reflect the mine committees that are currently active in the field. It was not possible to calculate this amount.

which the staff trained teachers and offered technical assistance to the Mozambican education system will be explored. Finally, a brief assessment of the effectiveness of the educational tools is presented at the end of this section.

The Education Materials

In collaboration with the Ministry of Education, the HI staff created a) a manual that teachers could use as a guidebook and b) teaching aids that teachers could utilize during their routine lessons. Hence, to date, there are materials for teachers and the children. Jointly with the Ministry of Education, the HI staff developed a teacher's manual designed to assist them to integrate mine messages into a Portuguese class for the first, second, and third "classe". A series of education materials using a cartoon character named "Rita" was also developed. For instance, a brief storybook was created for small children to take home and read. Similarly, five cards to be used in sequence were designed to reinforce Rita's experience of finding a mine. A set of large flipcharts was also produced recounting the same story outlined in the storybook.

In addition, the staff designed a collection of cards highlighting themes about mines that have different geometric shapes, colors, letters, words, and numbers. These cards are called the "toolbox", and they were created for teachers to use during both Portuguese and mathematics classes. Moreover, a large blank sheet was developed for children to draw what they imagine to be the "risks of mines." This exercise was intended to encourage children to demonstrate their creativity with respect to mines. Finally, a game board with numbers and rules was produced for children to play with as a group under teacher supervision. It was anticipated that this game would teach children both mathematics concepts and preventative action during mine presence. While other educational tools exist, these instruments comprise a greater part of education materials distributed throughout the provinces.

Developing the Education Tools

Through the guidebook, the HI staff aimed to provide teachers with substantive ideas and teaching methods to use to incorporate the dangers of mines into their daily class lessons. First, it was necessary to present to teachers general information about what mines and explosives look like, where they are most likely found, their effects, and their socio-economic impact. Second, the rest of the manual provides clear, step-by-step instructions, specifying how to teach elementary levels of Portuguese grammar using Rita's experience of finding a mine. Specifically, the guidebook includes questions that the teacher may ask the class to facilitate learning as well as different exercises to employ to assess student comprehension (about eight mine messages) and aptitude (in terms of the mechanics of Portuguese language which includes vocabulary, verb conjugation, sentence structure, etc.).

Prior to developing a draft, the HI staff reviewed literature covering the fundamentals of elementary education. After the second revised draft, the head Pedagogical Technician (PT) in Hi-Maputo worked closely with the National Department of Elementary Education in the Ministry of Education, soliciting comments and feedback from their

education specialists. The HI staff also garnered the opinions and reflections from district level educational professionals throughout the country. There were a total of three drafts of this manual, and each version was field-tested extensively (over two months) in classrooms in Nampula and Maputo Provinces.

Finally, the provincial PTs were requested to assess the degree to which the guide a) covered elementary Portuguese grammar, b) introduced technical (mine) content, and c) suggested appropriate instructional methodologies (pedagogy). This latter activity occurred through a workshop setting, where all the PTs worked in groups and developed recommendations jointly. The PTs were also required to teach a mock class (Portuguese, mathematics, natural science) and integrate the mine message(s). Through this exercise, the PTs had the chance to practice how they would train education professionals and to learn various training techniques to suit different audiences.

The cartoon character “Rita” was introduced in 1993 during the emergency period. Thereafter, the HI staff decided to continue working with Rita to be consistent. With assistance from a Mozambican artist, the HI staff conceived of the storybook portraying Rita’s experience of finding a mine. The staff view the storybook as an important education tool, because children are able to interpret the story without teacher/parent supervision. The flipcharts mirror the storybook’s images and narrative. This instrument was created to provide teachers with a colorful display within the classroom which is supposed to capture children’s attention and endorse the storybooks.

The “toolbox” was developed as a teacher aid to assist in instructing Portuguese and mathematical concepts. This tool encompasses multiple “learning domains”, including colors, numbers, geometrical shapes, letters, and examples of words with the featured letter in the beginning, middle, and end of different words. The Ministry of Education also reviewed this aid and provided constructive comments, but this tool has not yet been revised.

Blank pages and sequence cards were created to stimulate creativity while teaching the mine messages. Similarly, the blank pages enable children to draw what they perceived the dangers of explosives/mines are and how they occur. The sequence cards are simple and easy to fabricate by hand. The HI staff wanted to develop instruments that would inspire teachers and children to express their own imaginative thoughts about mines/explosives.

Given the extensive review and pre-testing, one may surmise that the educational tools and instruments distributed underwent thorough evaluation processes by the HI staff, the Ministry of Education’s specialists, and education professionals in the field. The following section presents how the PTs train teachers and professionals to integrate the messages in routine lessons, using the educational materials.

Training Teachers and Education Professionals

Training activities are concentrated where the threat of mines is most prevalent, and local the government administrative officials define these areas. In each district, clusters of

schools located close to each other are called “ZIP’s” (or Zonas da Influência Pedagógica). Those selected for training are normally ZIP representatives or coordinators. Two people are selected from each ZIP, and frequently workshop participants are:

1. Directors of schools;
2. Directors of ZIP’s;
3. Assistants of those working with the director of the ZIPs;
4. Head of the district level Office of Pedagogy (often the same as the director of schools at the district level); and/or
5. Teachers in the field.

All training lasts three days, and it is normally conducted over a weekend (Friday through Sunday morning), so that teachers do not have to cancel their classes. Roughly 25-30 teachers are trained at the same time. The workshop programme includes topics similar to that described for the mine awareness campaign activities. The only difference is that the education professionals also construct a lesson plan in groups of five persons. This exercise ensures that the educators have the opportunity to develop a framework that they can use to integrate mine-awareness in their classes. Specifically, the participants organize this plan according to content, methodology, and techniques to use to endorse content. After formulating the lesson plan, one or two workshop participants have the opportunity to teach a class, while the others observe, take notes, and prepare to provide constructive feedback afterward. The workshop ends, and the PTs provide a copy of the manual which is intended to be of use for the entire ZIP. The PTs encourage all participants to train others, once they have returned to their residences.

Providing Technical Assistance

In addition to organizing and delivering training, the PTs extend multiple forms of technical assistance. Two distinct categories of technical assistance provided by the HI staff are a) attending regular meetings held at ZIPs; and b) conducting observations of workshop participants in their classrooms.

Attending ZIP and Other Meetings within the Education System

PTs regularly participate in different meetings attended by educators, and these include 1) when ZIP’s meet for general purposes, 2) when schools meet; and 3) when ZIP’s meet every two weeks or month to plan the thematic and/or substantive areas for a distinct planning period. It is during these meetings that the PTs assist educators to plan how the mines messages can be integrated into classes. Specifically, the PTs make recommendations about what next steps (or plans) to take (or make) to continue fulfilling the educational objectives. Finally, the PTs respond to any questions or doubts educators may have about using the educational materials.

Conducting Observations

The PTs also observe teachers in classrooms to assess the degree to which they understand, have internalized, and practice integrating the mine messages in instruction. The specific things PTs look for while conducting observations include:

- The basic attitude of the teacher toward the children (students);
- If the teacher captivated the attention of the students;
- If the teacher followed the lesson plan (s)he created, and if so how well;
- If the teacher has mastered the mine messages;
- If there is a correlation between this skill and his/her ability to transmit the messages correctly;
- If the teachers could have used an alternative way to teach the message(s); and
- If there is student receptivity to the content (regarding mines) and teacher's didactic practices.

Some PTs use a form while undertaking this particular activity. They recognize that teachers are skilled in didactic methods; however, they offer recommendations for improved teacher performance. Hence, at the end of the class, the PTs review the different areas observed with teachers and provide them with a copy of the form. Such a form of evaluation also ensures if teachers have actually understood technical aspects of the dangers of mines.

In sum, the PT provides the following forms of technical assistance:

- *Examples* of how these messages could blend into their plans for future educational activities during regular meetings held;
- What is labeled as “*technical assistance*” or providing information about the content of mine messages. That is, the PT clarifies any doubts or questions about concepts related to mine awareness messages; and
- *Teacher observations* to assess the degree to which educators have learned and practice integrating mine messages into their routine lesson plans.

Effectiveness of Education Tools

To recognize the value of the guidebook, it is necessary to review briefly the nature of the teaching process explained by some education professionals interviewed in the field. Specifically, interviews and class observations indicate that teachers use strategically local languages to transfer different concepts and to facilitate student comprehension. One interviewee in a rural town in Tete described the following process while giving a lesson:

- The teacher begins with a verb in Portuguese;
- (S)He then translates the information into the local language;
- (S)He repeats the word in Portuguese;
- (S)He then tells students in the local language that he is telling them the same thing in Portuguese. When the students understand the meaning of the word or concept, the

respondent noted that “the student’s response once she or he has understood it is great enthusiasm” (demonstrating by jumping up in his seat).

Given this teaching process, it is evident that the teacher’s manual is well-suited to embrace its multiple translations in the local languages which occurs during instruction. The manual was also described as simple, practical, and “explicito”, and it had great applicability and utility. Further, given the iterative process in which these messages are translated during classroom instruction, it appears that the manual’s simplicity (with streamlined messages and content) is most appreciated.

The period in which training takes place, however, is ill-suited. For instance, the training takes place during the school semester, and this training period prevents some teachers from finishing the entire cycle outlined in the manual. Those interviewed repeatedly noted that they only had the opportunity to follow the entire cycle outlined in the manual *for the first time during the following year*.

Assessing the effectiveness of educational materials and teaching aids requires an extensive review of different students’ reactions to the tools, taking into account (if possible) a) their unique needs, b) which part of the tool and/or instruction they find most stimulating, and c) how they perceive the overall learning experience. Unfortunately, the evaluation information collected does not permit such a thorough assessment, as school was out of session in three of the six provinces visited.

However, interview data with education professionals suggests that the teaching aids are practical and user-friendly. Such positive feedback may be attributed to the HI staff’s time and energy spent evaluating each tool’s utility and classroom appropriateness. Alternatively, the teachers interviewed complained repeatedly that the *supply* of materials was low, which obstructed them from a) training other teachers in mine awareness education concepts, and b) employing the education tools with higher frequency.

Interestingly, some education professionals offered suggestions about additional tools and activities that would assist them in their work. They include:

- ← An identical manual like that HI created for Portuguese classes but instead for mathematics, natural science, and history classes;
- ← Additional manuals for educators teaching higher educational levels;
- ← Photos, large pictures, and/or videos of victims who have suffered from a mine accident⁴;
- ← Props that look like real mines/explosives⁵; and

⁴ The HI staffs’ response to this comment was that educational materials with large pictures of actual victims were considerably more expensive compared to images and drawings performed by a local artist. This option was therefore not explored due to cost concerns.

⁵ After discussing with the staff the idea of furnishing props to teachers, it was made clear that providing such materials would conflict with their mine awareness “Don’t Touch” message. It was not certain what effect providing a mine prop would have on the children in the event that they were to discover a mine. Thus, this option was cautiously reviewed and rejected.

← Frequent observations of classroom instruction followed by constructive feedback.

Given the nature and extent of feedback, the education professionals involved in PEPAM's activities have developed a strong appreciation for the educational materials and technical assistance offered.

Programme Achievements

While it was not possible to estimate the number of hours that PTs spend providing technical assistance, a conservative estimate of their time ranges between 20 to 40 per cent. To date, PEPAM's education programme has accomplished the following activities:

- 2,313 teachers trained;
- 5,000 teacher's guides purchased⁶;
- 1,000 "tool box" and sequence cards purchased;
- 50,000 "Rita" storybooks purchased;
- 20,000 blank sheets purchased; and
- 10,000 game boards purchased.

Process of Distributing the Mine Awareness and Education Materials

Materials Distribution Process

HI's offices are divided into three different regions, including the Northern, Central, and Southern zones, and each zone covers up to three different Provinces. For example, the Northern zone includes Cabo Delgado, Nampula, and Zambezia, the Central zone Sofala, Manica, and Tete, and the Southern zone covers Inhambane, Gaza, and Maputo Provinces. The different regional offices serve as points through which material distribution is coordinated, and each coordinator is (in part) responsible for budget allocations and communications. The process through which HI distributes educational materials is:

- HI – Maputo sends materials to its regional and/or provincial offices;
- The regional/provincial offices send materials to:
 1. Partner's Provincial offices, and they pass on materials to their district and community offices;
 2. Partner District offices, and they pass on materials to their community offices; or/and
 3. Partners working directly with communities (when time and transportation permit).

⁶ It was not possible to acquire precise estimates regarding the number of educational materials *distributed*, but it is estimated that roughly 90% of that purchased has already been distributed.

The HI staff (PSs) normally provide supplies to partners every two or three months, and the content of each batch varies depending upon what is available in the HI Provincial office. The staff normally react to a partner's request for materials through a written letter. These quantities are traditionally based on the number of lectures planned, the number of agents working in the field or the number of teachers in a school, and population density estimates. However, some interview data indicates that HI frequently provides sufficient materials on a regular basis, and so in this case, the partner has little opportunity to request additional supplies. In sum, the process of distributing supplies to partners is established and based on planned field activities among other criteria.

Lessons Learned while Distributing Materials

In the beginning of 1999, HI experienced difficulties distributing the mine awareness and education materials. The impressions for the different materials were fabricated in South Africa, and a Mozambican company actually produced the merchandise. Specifically, when the order was complete, there was a discrepancy between that which was ordered and the physical inventory. The discrepancy was significant and was not noted. In addition, the staff provided materials to different parties (the NMCI, UNICEF, and Mozambican Red Cross) for their use, and this amount was not recorded either. Hence, when allocating educational materials to the different provinces, the staff worked from an inaccurate inventory list.

Sensitive information has been removed here.

Surprisingly, in Inhambane Province, it was observed that the restricted supply of educational materials actually produced a positive effect. As there were no extra materials, the partner institutions (NGOs, governmental, and communities) were obliged to (a) develop strong skills managing the little inventory they had, and (b) work even closer with communities which failed to respect the materials (e.g., stealing posters). This phenomenon is discussed in greater detail in section outlining influencing factors of community awareness.

Data Collection Activities

This section reviews the development of the data collection form used to record mine-related accidents and suspected zones. The process through which this information is collected, the technical assistance offered by HI staff, and the form's effectiveness are presented. The factors influencing the system's efficiency are also explored.

History of Data Collection Form

The data collection form was created in December 1994 by UNHCR. During this time, there was a great need to document a) the number of mine-related accidents; b) mine discoveries (for mine clearance purposes); and c) suspected zones. It was anticipated that this form would be used by multiple organisations engaged in mine awareness and removal activities. Hence, HI is not the only organisation using this form. This form

underwent several modifications over six years, making the form simpler and easier for field agents (and partners) to fill out.

There are two different forms which report a) mine-related accidents and b) suspected zones. Specifically, information is solicited about the type of mines that are suspected or that caused the accident(s), what activity the person was engaged in before the accident occurred, if the person was killed or hurt (amputation), demographic information (age, sex, etc), and the date of the accident. Moreover, the form collects information about the approximate radius of the hazardous zone and its precise location, using symbols.

To date, the information from this form is being used for multiple purposes, including but not limited to, the creation of a database system (using GIS software), maps of landmine concentration, and mine-related accidents monitoring. Future plans include upgrading the technological capacity of the current database system by recoding and recording all (previous) mine discoveries and suspected zones through GPS. Interviews with the NMCI representatives revealed that this task will require a) reconfirming all data entry from the past; and b) providing training to partner institutions (and possibly field agents) about how to use GPS equipment.

Data Collection Process

A field agent fills out the form and provides all information solicited.⁷ During the mine awareness training, the PS instructs the agent how to fill in correct information. In the event that the agent is unable to fill out the form properly, the PS meets with the agent, accompanies him/her through the process (using an actual mine discovery incident as an example), and answers any other questions the agent may have. HI's assistance is an additional form of technical assistance that has enabled the data collection process to evolve/develop.

Once the agent fills out the form, it is passed through a network of partners, including but not limited to:

- Police Offices;
- Local mine committees;
- District mine committees;
- District administration offices;
- International and domestic NGOs (local and provincial offices); and/or
- Directly to HI provincial office.

Upon receipt of the form indicating mine discovery, the PS reconfirms personally the location and ensures that the information is correct. Once the information has been confirmed, the PS communicates with mine removal teams operating in and/or around the area(s). In addition, the HI provincial office summarizes the information and sends

⁷ It should be noted that teachers were not included in this part of the programme. Data collection activities are restricted to community activists/leaders and personnel linked to the governmental administration.

regular reports to HI and NMCI offices in Maputo. This information is, in turn, entered into the database.

Factors Influencing the Efficiency of the Data Collection Process

Interview data indicates that there are five influential factors preventing the data collection system from operating efficiently. They include:

1. Many members on the local and district level mine committees articulated that they wanted some form of payment or compensation for their time and energy. This lack of incentive impedes prompt reporting of suspected areas;
2. There is a dearth of individuals with a minimum level of education (at least 6th class) to fill out the form(s) at the village level, and this compromises accurate data collection;
3. Before passing on information to mine removal teams, the PSs must confirm each mine discovery. This is due to a lack of capacity at the village level, thereby slowing down the flow of information;
4. There is great distance between villages and district capitals which contributes to delays; and
5. The lack of transportation to send the form to the district capital or to HI's Provincial office creates significant delays.

Ultimately, the above factors obstruct the flow of information and/or data accuracy. Given these inadequacies, it is warranted to question if this system fulfills its objectives of (1) developing a network of partners to gather related information about mine accidents and suspected areas/zones; and (2) supporting mine removal efforts and/or studies exploring the socio-economic impact of mines/explosive devices.

The Collaborative Effort

HI's collaboration with multiple partners is presented in this section. Specifically, HI's collaboration is comprised of multiple parties, and they include the NMCI, Administration, Ministries of Education and Health, Mozambican Red Cross, the Police, Ministry of Social Welfare, and directly with community leaders/members. The process through which HI created and nurtured links with its field partners (e.g., NGOs and community) as well as the history of how their involvement influenced the direction of PEPAM's activities will be explored. Further, the characteristics of HI's collaboration and factors influencing the nature of partner involvement in the programme are reviewed.⁸

⁸ It is recognized that HI has distinct relationships with key partners (e.g., Ministry of Education, NIMC, State Administration, Police, etc), but due to time constraints and the period in which the evaluation took place, it was not possible to explore the desired degree of involvement for each partner. See factors influencing the evaluation in Appendix 1 for more information.

History of HI's Relationships with Field Partners

In 1995, HI began working with many international and national NGOs exclusively to sensitise rural and urban populations about the dangers of mines⁹. Programme activities were systematically concentrated in areas where land mines had the highest number of casualties and/or suspected zones. The provincial and district government administrations were involved in selecting villages and communities they perceived were “at risk”. Once the districts were prioritized, the HI staff investigated which NGOs were working and/or had activities on-going in the areas. The process through which relationships with partners is initiated includes the following steps:

- Investigate what activities the partner is *currently* implementing and the specific geographic location(s) in which these activities are operating. It was important that PEPAM's activities were integrated into the partners' *existing* activities rather than *creating* new activities which fell outside of on-going programmes;
- Present PEPAM's mandate and solicit the partner's help in creating an awareness about mines; and
- Establish an accord with the partner organisation to increase awareness about the dangers of mines.

Through the above steps, HI created a dialogue with partners, developing a verbal or written accord and defining the specific types of activities each party could undertake. Normally, there were four different types activities in which partners became involved, and they include:

1. Financing training activities for *their* staff but conducted by HI;
2. Integrating the mine awareness activities into existing programmes;
3. Conducting mine awareness campaign activities full-time; and
4. Implementing a combination of the three activities above.

The activities in which the partner chose to deliver mine awareness campaign messages include covering training costs and an array of campaign activities of varying intensity. For instance, the mine awareness component could represent one of several additional field activities on-going within the partner's programme portfolio. That is, the partner's field agent had multiple duties, and mine awareness represented one of many other assignments. The programmes undertaken by Mozambican Red Cross best characterize this scenario.

In contrast, mine awareness activities may have represented the partner's main activity with full-time field agents. Ultimately, when HI initiated partnerships, the extent and nature of the partner's involvement in delivering mine awareness messages was negotiated through a *participatory process*.

Initially, HI did not have funds for training activities, and hence the staff were required to convince and rely on NGOs to cover these costs. These circumstances influenced

⁹ The names of these organisations have been removed from this report.

significantly the manner in which they could activate links with partners. For example, without funds for training activities, HI's programme approach appeared passive and unmoving rather than urgent, proactive, and spirited. Ultimately, the lack of funds for training impaired HI's ability to fulfill the programme objective of creating a network of partners.

Once a partner agreed to undertake mine awareness activities, the HI staff (PSs) provided training. Specifically, they trained the partner's field agents how to explain to populations about the dangers and risks of mines through a workshop setting. Initially when the partner paid for the training, the PSs were subjected to work within the time frame allowed. This constraint often forced the PSs to cover less contextual information about mines (stereotypes about mines and how accidents occur) and focus narrowly on the technical aspects of mine composition (personal and anti-personal categories) and programme intervention methodologies (data collection forms). However, once HI covered training costs, training lasted three days. During this time, the PSs had more time to review how mine awareness activities "fit" into the field agents' working conditions.

The HI staff realized that they needed to develop even stronger links with government institutions and traditional community leaders/authorities. In March 1998, the entire HI team met to reform their current strategy of partnering with organisations and governmental institutions. This meeting ultimately resulted in the establishment of a cohesive network.

Information has been removed to maintain confidentiality.

These decisions in turn influenced the nature of *existing and new* relationship(s) that the staff had at the provincial and district levels. The data indicates that this workshop was very important and marks a strong turning point between the first (infantile) stage to a more mature form of collaboration.

Characteristics of PEPAM's Collaboration

Collaboration involves multiple partners who engage in different activities to address (and perhaps resolve) a problem. Ideally, collaborations should comprise of different organisations, and all those involved are committed to a common cause, have open communication, and are willing to share responsibilities, risks, and resources. HI's collaboration with its partners varied considerably from partner-to-partner and region-to-region.

In some cases, HI's relationship was collaborative as defined above. For example, in Inhambane, HI's, relationship(s) with the community, NGOs, Ministry of Education, and government institutions were active, directed, and (in all cases throughout the provinces visited) supportive. Interview data indicates that partners *met together* regularly, shared information about their activities, disclosed any needs with respect to educational materials, and documented what took place in these meetings. It appeared that decisions about the direction of the mine awareness/education activities in the area were **shared**.

HI's relationship with the Ministry of Education may also be characterized as collaborative. The staff worked together with the ministry to develop instruments and teaching aids to ensure consistency with teaching methods and in substantive areas used throughout the country. It should be noted that the Ministry of Education is an institution with an expansive organisational structure, and interviews with education professionals suggest that they have a different perspective while attempting to integrate mine awareness into their existing educational goals. Specifically, education professionals are concentrating on upgrading the physical structures of schools and improving the quality of education offered.

For example, the few observations conducted in Maputo, Manica, and Tete Provinces indicated that classrooms are generally in poor physical condition. Little or no funding was available to meet maintenance or running costs or to obtain supplies of instructional materials and other educational inputs. Teacher effectiveness and student learning were found to be further limited by an inadequate supply of basic learning materials (e.g., pens/pencils, paper, notebooks). Most teachers interviewed were committed to their vocation. However, extremely low remuneration, poor working conditions, and inadequate facilities have started to erode their motivation, satisfaction, and creative abilities. Furthermore, other subjects against which landmine awareness must compete exist, and they include AIDS, increasing girl's enrollment, and cholera. Given such circumstances within the educational system, a rapid integration of the dangers of landmines/explosives into the education system is not permissible.

Information has been removed here in accordance with client – evaluator confidentiality.

HI's relationship with the NMCI may best be characterized as “consultative”, in that HI consulted with the NMCI about programme-related decisions while they occurred. It appears that NMCI was not closely involved in decision-making processes throughout the programme period under review. However, it must be noted that HI actively worked to include the NMCI in their evaluation seminar/workshops.

Ultimately, interviews suggest that in all cases observed, HI served a catalyst role, advocating the need to include mine awareness in their partner's existing activities.

Factors Influencing the Collaborative Effort

Interview data indicates that there are several factors influencing the nature of the collaborative process. They include:

- Differing leadership approaches/authority;
- Support from the top;
- Different programme priorities, ideologies, and outlooks on goals;
- Bureaucracy inhibiting communication internally and externally;
- Geographic proximity;
- Regular opportunities for informal and formal contact among different partners (e.g., monthly stakeholder meetings with minutes);

- High staff turnover;
- Scarce resources;
- Shared commitment about raising awareness about mines;
- Similarity in organisational structures; and
- Common philosophy about community development.

The above themes were derived from data collected, and they either strengthened or weakened HI's collaboration with partners.

Nurturing the Links

After a partner agrees to collaborate with HI, they became part of an exclusive network engaged in educating populations about the risks of mines and preventative actions. These partnerships are nurtured through several activities, including:

- Distributing reports and periodic newsletters to each partner and *elaborating* the magnitude of each partners' different activities;
- Holding regular collaboration meetings in which each partner was requested, personally by the staff, to attend. In the event that the partner was unable to attend, the HI staff often provided a copy of the minutes and/or information exchanged during the meeting to the partner;
- Visiting the field agents' in isolated areas, ensuring that they had sufficient educational materials with which to work. Through this approach, the partner felt the notion that (s)he was not "alone in this [education] campaign";
- Convincing some partners who are "less committed than others" to join in the fight against mine-related accidents. These partners traditionally harbored attitudes of expecting financial incentives for their contribution(s). Interview data indicates that such a sentiment is particularly notable when international organisations are involved in projects. Therefore, the PSs engaged in mine awareness activities and helped them to understand the need to expect less financial contributions and to take on more voluntary responsibilities. One example of such an activity includes interacting with them in social situations and inviting them after coordination meetings to social gatherings.

All of the above efforts have resulted in creating relationships with partners that extend beyond the realm of professional camaraderie and more toward friendship and partnership.

Effects of Mine Awareness Campaign at Community Level

In this section, the information collected through a survey, in-depth interviews with partners/programme staff, and an existing database are presented. First, survey sample descriptive statistics and results about attitudes and preventative actions are reviewed.

The following section presents a qualitative analysis about the extent to which observed communities have developed consciousness or internalized mine awareness campaign messages. Finally, the results from trend data concerning the nature of mine-related accidents/suspected zones are also included in this section.¹⁰

Survey Data

The consultant constructed a survey measuring knowledge, attitudes, and behaviour about mines. A total of 45 individuals were conveniently selected to answer 20 questions, and the interviews were conducted by the programme staff in the local language. (See Appendix 1 for a copy of the survey instrument.)

Sample Characteristics

The sample of those interviewed consists of approximately 60 per cent male (40 per cent female), the majority (64 per cent) of whom are married. Twenty-two per cent the respondents have no formal education, while a large share (45 per cent) falls in between 1a classe and 4a classe. In addition, the sample is fairly evenly distributed across all five provinces visited, where Zambezia ranks the highest (30 per cent) in terms of the number of interviews conducted and Manica the lowest (7 per cent). The average age of the sample is 33 years old (standard deviation of 15 years).

Media through Which Mine Messages Were Received

All those interviewed have heard about mines. Furthermore, roughly 80 per cent note that they have heard about mines “many times”, while only 13 per cent state that the frequency of hearing about mines is “every now and then”. The remaining 7 per cent have only heard about mines “a few times.” The radio ranks the highest in terms of the most popular medium through which mine messages are heard at 62 per cent. Other media include friends and family (11 per cent), lectures (8 per cent), theater (7 per cent), pamphlets/posters (4 per cent), teacher (4 per cent), and seminars (2 per cent).¹¹

Attitudes and Knowledge about Mines and Explosives

A total of seven statements were constructed, whereby the respondent had to indicate whether (s)he agreed or disagreed. Specifically, 100 per cent agreed with the statement that “mines are dangerous. Similarly, 80 per cent disagreed that “moving close to a mine is not so bad”. Only 93 per cent agreed that explosives are dangerous, while 40 per cent agreed with the statement that “all mines are only made of metal”. This finding is interesting, because it suggests that a notable proportion of people perceive that mines come exclusively in the form of metal, when they are made of various other materials

¹⁰ One should interpret carefully the results from trend data about mine-related accidents. The information presented in this section is intended to demonstrate specifically that accidents have decreased throughout the programme period. It is not suggested that the fall in the number of accidents *may be attributed to* the PEPAM’s activities.

¹¹ Those who heard from friends/family members may have heard through other channels (e.g., radio, lectures), but it is not known which mediums were most prevalent.

(e.g., wood, clay, etc). Finally, approximately 90 per cent of the sample disagreed with the statement “the sign of crossed sticks means free or safe land.” Overall, based on this brief analysis, there is some indication that community awareness about the dangers and risks of mines is considerably strong. (Please see appendix 3 for charts of these results.)

Preventative Behaviour about Mines

One question of the survey asked about the preventative measures taken to avoid an accident in the event of mine discovery. There were six choices to choose from, and each choice is presented with its corresponding results below:

When I see a mine, I should...

Stop	10 %
Go back right away	18 %
Tell someone about it	19 %
Mark the area with a sign	13 %
All of the above	40 %
I don't know	0 %

Given these results, it seems that those sampled have a clear idea of the steps to take in the event of discovering a mine.

Who to Tell About Mine Discovery

An open-ended question on the survey asked respondents who they would inform if they found a mine. The results from this question are:

Parents	4 %
Teacher	4 %
Head of the Zone/Community Leader	60 %
Police	8 %
Mine Committee Member	10 %
Field Agent/First Aid Person	14 %

Evidently, an overwhelming majority of those surveyed stated that they would consult their local authorities and/or traditional community leaders if they were to find a mine. These results imply that people rely on their local authorities for help and guidance. Please see Appendix 3 for charts of data results from the community survey.

Factors Influencing Community Mine Awareness

Interview data with field partners revealed interesting information about the extent to which communities a) have acquired awareness about the dangers of mines and b) are willing to work proactively to maintain a safe environment. Three categories or levels of consciousness emerged from the data collected. They include 1) no consciousness, 2) partial consciousness, and 3) complete consciousness.

No consciousness implies that communities have limited or no knowledge about what mines are, look like, where they are most likely to be found, or what to do in the event of discovering a mine. In 1995, many communities fell into this category. Similarly, **partial consciousness** refers to communities who know what mines look like, understand where they are most likely to be found, but they are unwilling to put up a sign when they find one. At this level, the communities also do not respect signs that indicate mine presence, and they take home the posters hanging in public places that are intended to inform others. Finally, **complete consciousness** denotes communities which have complete ownership over maintaining an accident-free and safe environment. For instance, they inform their children how to react in the event of mine discovery, respect the signs indicating mine presence, and leave posters in public places so that others may inform themselves about mines.

Of the six provinces visited during the evaluation, it appeared that only one Province (Inhambane) had reached the complete consciousness level. The remaining five Provinces fell into the partial consciousness category. Several factors influenced community ownership over the mine situation. They include:

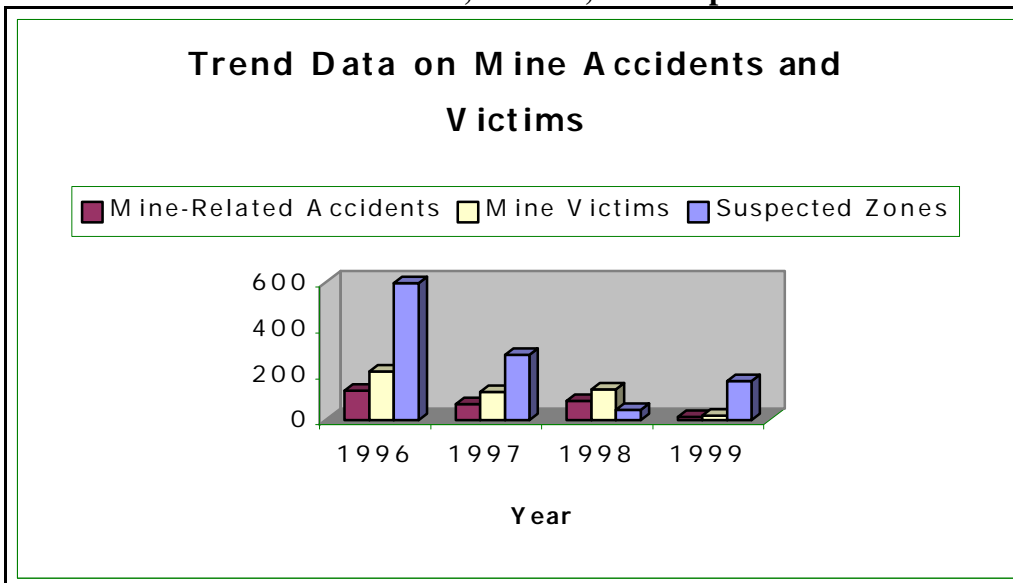
1. When someone in a community has been hurt or suffered the consequences of a mine-related accident (e.g., blindness, mutilation, etc.). In the case of Inhambane, interview data indicates that even though communities have been exposed to lectures and educational materials, it was only after someone was injured did the dangers of mines become a reality for the community. Hence in this case, the intervention (educational materials and lectures) was reinforced by an accident, thereby making the danger a reality;
2. When mine removal teams arrived in a given village, communities developed a stronger awareness about the dangers of mines as well as the need to maintain safe environment. This particular phenomenon was apparent in Zambezia Province. It should also be noted that a similar effect on the data collection system was also observed. Specifically, there was more of an incentive to fill out the forms (without financial remuneration) when a mine-removal team arrived to dig up the mine shortly thereafter;
3. When another NGO working in a neighboring district provided food and money in exchange for weapons, communities were less willing to disclose where mines were located. For example, in Zambezia communities were unwilling to inform local officials where mines were located, as they believed that they could receive remuneration (in kind or cash) for this information; and
4. When the field agent(s) responsible for raising awareness about the dangers/risks of mines have multiple duties (as in the case of the Mozambican Red Cross volunteers), they are considerably more efficient with the time spent sensitizing communities compared to those who work full-time on campaign activities. This influential factor was observed in Tete and Zambezia.

The consultant believes that the influencing factor, whereby someone gets hurt is the most significant factor which reinforces the mine awareness messages within communities. Indeed, this theme was recurrent in multiple provinces visited. Specifically, once communities understand the dangers of mines/explosives after an explosion, and they are then able to connect the dangers of mines to their reality. Subsequently, their awareness and ownership over maintaining a safe environment becomes acute. One must be cautious while interpreting this finding however. The education materials, training, technical assistance, and collaborative effort(s) coordinated by HI are worthy and have worked to raise community awareness. In certain communities, however, as articulated by many respondents, “there are some people who are stubborn or who are unwilling to listen and learn.” These individuals are those who a) create risks for others, or/and b) suffer the consequences of mine risks and explosive devices. Hence, the mine awareness and education activities enable others who are “willing to listen and learn” to inform and protect themselves. Those who fail to heed the advice may suffer, but their example serves as a lesson for many others to learn.

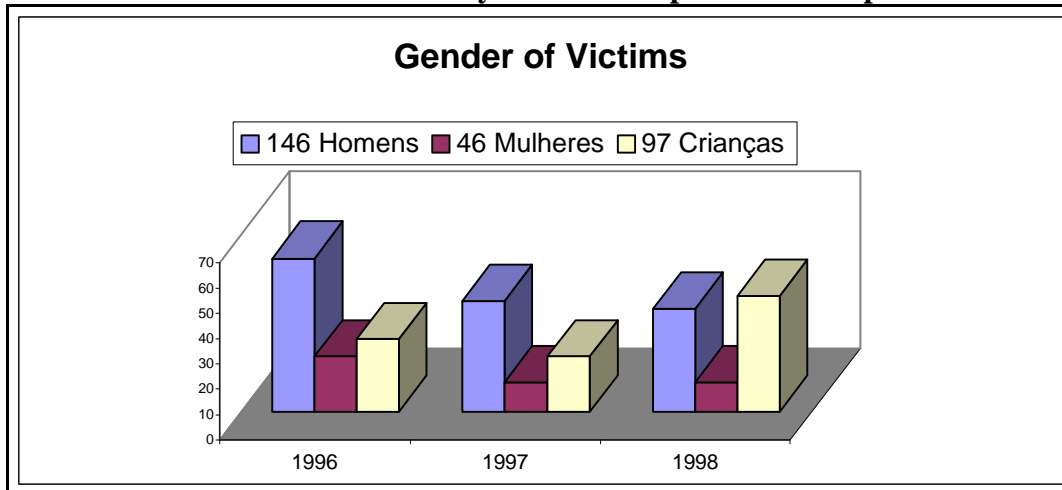
Trend Data on Mine-Related Accidents and Suspected Zones

The trend data presenting mine accidents, victims, and suspected zones shows a marked decline since 1996. This change may be seen in Chart 1 from 1996 to 1999.

Chart 1: Trend Data of Accidents, Victims, and Suspected Zones



In addition, data was collected on victims as well as the nature of the activity in which they were engaged when an accident occurred. It appears that probability of children being affected by landmines is high, and the number of child victims has increased over the period under review. Chart 2 presents these results from 1996 to 1998.

Chart 2: The Number of Victims by Different Population Groups

The most common activity in which mine victims were engaged include working in the “machamba” or farming, hunting, collecting wood for cooking and house construction, and traveling. The results from this data may be found in Appendix 4.

Concluding Remarks

The data from the survey, in-depth interviews, and PEPAM’s data collection system portray that the landmine situation in Mozambique has improved dramatically over the past five years. It is not possible to connect these results to PEPAM’s intervention(s), but one can surmise that the effectiveness of the PEPAM’s simple messages, materials, and media chosen had some effects. The extent to which PEPAM’s interventions contributed to the decline in accidents is not known.

Reflections and Recommendations

HI has unquestionable expertise in educating masses about the dangers and risks of mines/explosives through the use of various communication media and tools. These activities should not be confused with conventional education activities, because public education campaigns are normally intended to reach, inform, persuade, and change the behaviour of multiple groups within society (e.g., women, children, adolescents, elderly, rural and urban dwellers) simultaneously. Furthermore, this project demanded a colossal responsibility of persuading and convincing partners to engage in mine awareness/education activities, and the staff were obliged to perform these tasks frequently under strenuous and tough working conditions. It should be recognized that the programme staff are not only hard-working, but their commitment to mine awareness and education is admirable and exemplary. Finally, HI has created a brilliant network of competent, dedicated, and inspired partners through which mine messages have been transmitted cost-efficiently.

The following section presents recommendations to render activities more effective and future paths to explore for continued services. The findings are based on extensive field data collection, including interviews and observations.

Continuation of Mine Awareness and Education Activities

Based on the evidence collected about community consciousness and ownership over the mine situation, it is suggested that mine awareness campaign activities and education continue for an additional year before phasing out mine awareness/education activities.

Awareness Campaign Tools/Media

Field agents conducting lectures actively should include those who have suffered ill effects, as their presence will render the messages delivered *credible* and increase awareness.

T-shirts should be used frugally and particularly by the agent transmitting the message(s) only. T-shirts work most effectively when the agent wears them while delivering speeches. When they are distributed in mass quantities for everyday use, however, the mine awareness message becomes diluted, and people fail to respect the symbols and the mine message(s).

Theater should accompany a tool or an educational material that could be used later to remind people and ultimately influence beliefs. Theater should be treated as a means to capture attention but not to change attitudes or beliefs, except if used repeatedly.

Education Tools

Budget permitting, manuals created for mathematics, natural science, and history classes should be developed, and if possible additional sets for higher educational levels should be considered.

Less time should be spent on training educators about the dangers of mines, and more intensive interaction with educators is suggested. Activities would include frequent observations of classroom instruction followed by constructive feedback.

Teacher supervision

All training targeted for education professionals should occur during the months of December and January or during vacation months. The teachers will then be able to begin using the manual and integrating the messages into their classes from the beginning of the school semester.

Data Collection

The evaluation information from interviews suggests that the data collection system may require significant financial resources to revitalize and maintain for long-term operation. Ideally, creating a separate endeavor and/or set of activities concentrated exclusively on collecting valid information in a systematic manner would be most favorable. However, given the limited financial resources available, the following activities are suggested which require considerably fewer financial resources.

To accelerate the flow of information about mine discovery/suspected areas from district capitals to provinces, it is recommended that an appropriate communication medium (e.g., radios, telephones) be identified and integrated into the data collection system.

Considering that the volunteers who collect the information require some form of compensation for their time and effort, it is suggested that they receive remuneration (in cash or kind), budget permitting.

Other information excluded here.

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Appendices Not Included In this Version