

Mine smartness and the community voice in mine-risk education: lessons from Afghanistan and Angola

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ABSTRACT Mine-risk education programmes will fall short of their intended impact for as long as they fail to take into account local responses—knowledge, logic and everyday practices—to mine threats. Community information, systematically collected through household and institutional surveys, can help to define and understand endogenous ‘mine smartness’. The same evidence provides insight into the impact of mine-risk education, including its unintended consequences. Using six criteria of mine smartness, CIET carried out evaluations of mine-risk education in Afghanistan (1997) and Angola (1999). The first clear lesson to be drawn from these evaluations is that people in mine-affected areas do generate their own broadly effective means of facing the daily threat of mines. The second lesson is that people take risks for reasons that make sense to them: ‘education’ that landmines are dangerous probably adds little value for them. The third lesson is that mine-risk education that does not take into account these first two lessons can cause harm. The evaluations produced evidence of unintended risk-taking by people exposed to mine-risk education programmes.

As evidence of the societal impact of landmines accumulated in the early 1990s, attracting the attention of international donors and their constituencies,¹ mine-risk education became a regular feature of postwar reconstruction and refugee return. At that time mine-awareness programmes were seen as an interim measure to reduce the risk posed by landmines pending the more expensive and time-consuming process of clearance. By the mid-1990s many agencies began to look beyond clearance to broader humanitarian mine action, encompassing a range of activities aimed at reducing the risk of mine injuries and mitigating the effects of landmines on human populations.² Since then, making the programmatic shift from mine clearance to mine awareness to humanitarian mine action has been a work in progress.

The impact of mine-risk education programmes has been hard to gauge, in large part because evaluations have focused more on the output of the service provider (numbers of people trained or services delivered) than on the impact in terms of risk reduction. What is needed is a participatory monitoring system that

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collects household-level data and that can link coverage and cost with impact. Such an approach to assessment would shift the emphasis away from externally controlled data-seeking evaluations and towards recognition of the local context and the capacity of stakeholders to gather, analyse and use information.³

Such locally derived evidence can contribute to knowledge about the particular mix of circumstances under which an intervention works, allowing planners to visualise ‘what works where’ and to distribute limited resources effectively in order to achieve the desired impact. At the same time, a participatory monitoring process promotes self-reliance in decision making and problem solving, thereby strengthening people’s capacities to take action and promote change.⁴

In this spirit Community Information for Empowerment and Transparency (CIET) evaluated national mine-risk education programmes in Afghanistan and Angola in 1997 and 1999, respectively. The methodological approach adopted combined quantitative and qualitative data from several sources in order to examine the impact of current interventions and to precipitate local preventive action.⁵

A mine-smart framework

One gain that has resulted from the massive international investment in research on HIV/AIDS is that the evaluation community has come to understand that knowledge of risks is only one small step towards changing risk behaviours. Attitudes, subjective norms, intentions, the ability to talk about a particular issue, and agency—the ability to *do* something about it—all play a role. The goal of mine-risk education is to reduce the impact of mines by encouraging a change in behaviour. Increased knowledge of ‘mine stuff’—what mines and UXO look like, where they may be hidden, how minefields are marked—does contribute to this objective, but not nearly enough to bring about risk-reducing behaviour.

In possibly every society affected by landmines, a pragmatic culture evolves from first-hand experience of mines. Largely independent of externally motivated education efforts, an endogenous response to landmines is shaped by the local burden of mine accidents, livelihood and occupational demands, perceptions of personal vulnerability, and social norms around mobility and physical space. These factors influence people’s behaviour and, in a way that is unique to each society, contribute to creating indigenous ‘mine smartness’. Evoking images similar to the idea of being ‘street smart’, this expression refers to an adaptive attitude and behaviour informed by subjective norms, agency and knowledge of specific local risks, as well as general know-how.⁶ Sometimes, being ‘smart’ is not what an outsider would consider smart—it is simply a way to survive in an environment of multiple threats and challenges, an ongoing trade-off between risks and benefits.

The ideal mine-smart behaviour has at least six characteristics, as shown in Section C of Figure 1. Most mine-education projects imagine their work will improve the mine-smart behaviour of individuals. Some of these initiatives might also recognise that risk behaviour is affected by local pressures, such as the need to provide a living for families or gender roles and relations that put particular groups at risk. Few programmes, however, address such barriers to behaviour

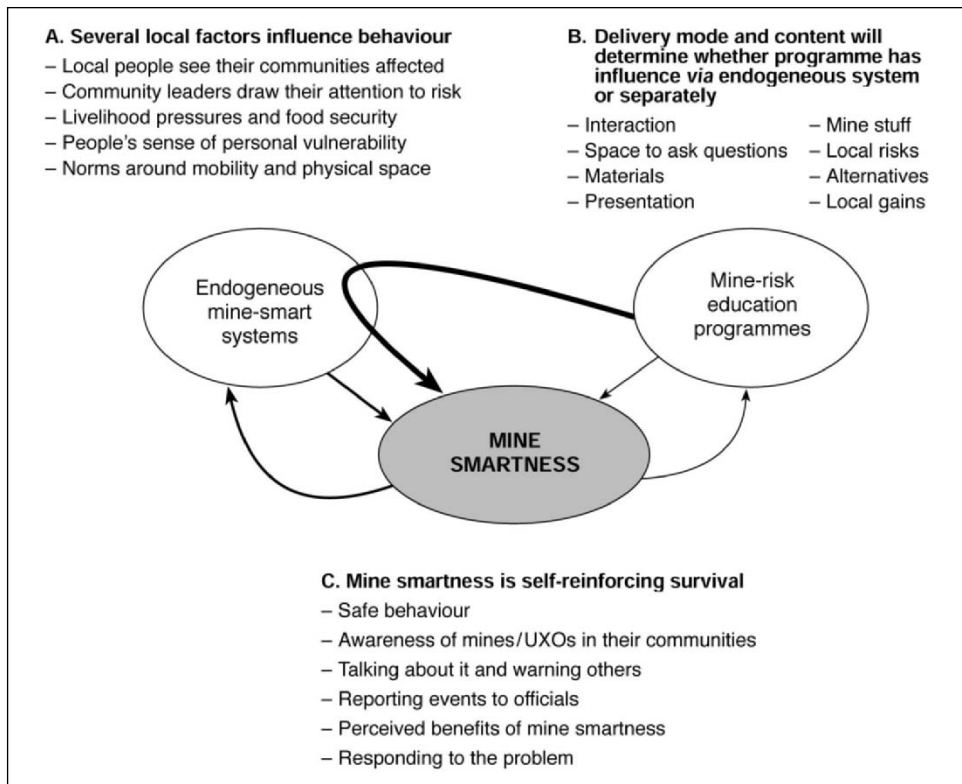


FIGURE 1. The CIET mine smartness framework.

change. Instead, they assume that, with a given *amount* of information, people will change their actions to minimise risk.

But risk behaviour is part of a complex culture of norms, attitudes and needs. The starting point of the CIET mine-smart framework is that the principal determinant of individual behaviour should be the endogenous mine-smart culture (see Figure 1, Section A). Externally motivated education programmes probably play a smaller part in the behaviour of the average resident of a mine-affected area. However, mine-risk education that takes into account the endogenous culture, building on risk-adverse behaviour and providing alternatives to risk-taking behaviour within this culture, could have a direct positive impact on individual practice (see Figure 1, Section B). This framework underpinned the evaluations conducted in Afghanistan and Angola.

Assessing the impact of mine-risk education in Afghanistan and Angola

CIET assessed the impact of mine-risk education in Afghanistan and Angola.⁷ Both evaluations focused on how mine education interacted with existing coping strategies to improve overall mine smartness, and the assessments measured the ultimate impact that the interventions had on levels of injury and on people's ability to carry out daily activities with reasonable confidence.

In Afghanistan, CIET undertook an evaluation of the Mine Action Programme for Afghanistan (MAPA) for the UN Office for the Coordination of Humanitarian Affairs (UNOCHA). Here, the evaluation looked at the impact of two main approaches to mine-risk education:

- direct training programmes operated by Handicap International (HI), the Organisation for Mine Clearance and Afghan Rehabilitation (OMAR), and Save the Children Federation-US (SC-US);
- the BBC radio programme *New Home, New Life*, which presented mine-risk education messages through a radio soap opera.

The direct training of HI and OMAR involved talks to groups of men and, in principle, the formation of mine-action committees to continue mine-awareness activities. The work of SC-US targeted male children, mostly around Kabul.

The cornerstone of the evaluation in Afghanistan was a household survey, in which an interviewer spoke directly with the male heads of 9124 households. Following an initial analysis of the data collected, local fieldworkers then conducted separate focus groups for men and children in each of the 86 sample communities, as well as seven women's focus groups in Kabul. The focus groups identified actionable solutions based on the evidence collected.

In Angola, CIET conducted a UNICEF-supported evaluation of mine-risk education programmes in Huila and Uige provinces. The evaluation assessed the impact of school interventions focused on the Programa de Educação para Prevenção de Acidentes com Minas (PEPAM).⁸

The Angola evaluation covered 2157 households and 1116 children in schools in sample sites considered representative for the two provinces. As in Afghanistan the evidence base also included reviews of institutions and interviews with prominent community members and government officials. However, since the CIET evaluation was not national in scope and since substantial differences appeared between the two provinces, it is not appropriate to generalise beyond these provinces on the basis of the results of this evaluation.

A sizeable proportion of the households surveyed in both countries had land that had been rendered unusable by landmines (64% in Afghanistan, 40% in the two provinces in Angola), and a small number had experienced an injury or death in the household because of a landmine accident (5% in Afghanistan, 3% in Angola). The survey covered both households that had been exposed to mine-risk education programmes and those that had not. In Afghanistan, 65% of the sample had been exposed to at least one mine-education programme, while in Angola the proportion was 32%.

Looking at each of the characteristics of mine smartness in turn, it was possible to assess the general level of mine smartness and to estimate the impact of external programmes.

Safe behaviour

Beyond reducing injury and death, the most desired impact for a mine-risk education programme is reducing risky behaviour. Both evaluations sought to

document risky behaviours and the potential impact of awareness programmes on these behaviours.

Findings from Afghanistan. Fully one-third of respondents in mined areas in Afghanistan said that someone in their household had gone into areas they knew were mined. Because of their dependence on land, farmers were more likely than other occupation groups to say that they would enter a designated minefield. Crucially, the Afghanistan evaluation showed that two interventions combined had a greater impact on reducing this risk than either intervention on its own. Among the unemployed in mined areas, for example, the proportion that reported going into a minefield was 17% (39/224) of those who had received education from both direct training and the BBC radio programme, 20% (18/91) of those who had been exposed to the BBC programme alone, and 46% (31/67) of those who had received mine education from neither source. Among farmers, who might have more reason to go into a minefield, the figures were 28% (127/461), 40% (125/315) and 49% (196/397), respectively.

Although no positive impact could be shown for direct training on its own—a strategy that absorbed the largest proportion of mine-risk education investment—farmers who had received direct training *and* listened to the BBC programme were much less likely to say that they would go into an area they knew to be mined than people who had had no mine-risk education exposure at all (odds ratio 0.39, 95%CI 0.27–0.52). From these results, it was concluded that a farmer who was exposed to both interventions was only about one-third as likely to go into a mined area as a farmer exposed to neither. On the basis of this evaluation, one can with 95% confidence rule out that the protective effect reduced the risk below 0.27, around one quarter. By the same token, with this level of confidence, the risk reduction was at least 0.52, around one-half.⁹ The implication for the mine-awareness programme is sharpened by multivariate analysis. The farmers are a fairly homogeneous social group, so the change in behaviour is not easily explained as a question of social class. It was also possible to exclude in the analysis the effects of education, family size and many other factors.

Asked why they took the risks involved in going into known minefields, most gave reasons related to livelihood, including to collect firewood (37%), to take a shortcut (18%), to tend livestock (17%) and agriculture (10%). Within the context of their endogenous mine-smart culture, people obviously weighed known risks against the responsibility to provide for their families. A sense of invulnerability or bravado may also have played a role in mine injuries. Ten percent of householders in mined areas thought that going into a minefield when one was not a professional de-miner was a brave thing to do. Asked why they had entered a minefield, one children's focus group stated simply that they were 'not afraid'. Again, the combination of direct training and the BBC radio programme had a beneficial effect. In mined areas, this sense of invulnerability was significantly less common among those exposed to *both* forms of mine-risk education than among those exposed only to the BBC programme (odds ratio 0.64, 95%CI 0.6–0.94, 186/2114 vs 133/1149).

Across the board direct training in Afghanistan had little impact on safe behaviour or reducing risk. By asking households whether and when a member

had been injured in a mine accident, it was possible to plot the trend in mine accidents over time. Between 1991 and 1997 there was a considerable decline in the annual number of mine accidents in areas that did not receive direct training, from 34 mine events in 1991 to just eight mine events in 1997. In contrast, in areas that received direct training, the number of mine events increased in that time period, rising steadily from four in 1991 to 21 in 1997. A possible explanation of this might be that certain types of training might increase risks in the short term. For example, the emphasis on mine stuff (eg names and descriptions of different types of mines) within traditional mine-awareness training might provoke greater curiosity or misplaced confidence, perhaps leading to increased risk. In fact, members of a household exposed to direct training were more likely to say they had collected scrap metal from UXO (odds ratio 2.5, 95%CI 1.34–4.71, 37/2103 exposed to direct training vs 16/2252 exposed only to the BBC or to neither programme). Not surprisingly, direct training was associated with an increase in upper-body injuries consistent with tampering. Someone living in a site exposed to direct training was nearly four times more likely to suffer upper-body injuries than someone in a site that had not been exposed to such training (odds ratio 3.8, 95%CI 1.52–9.8).

Direct training among children revealed a similar pattern. In 1996–97, the year after the programme began, a child in the SC-US programme area was eight times more likely to be a victim of a mine/UXO accident than a child from a non-SC-US mine-affected programme area, in Kabul or elsewhere (odds ratio 8.73, 95%CI 2.87–25.5, 6/998 vs 11/15883). This association excluded other possible explanations, including exposure to other training programmes, recent in-migration to the area, exposure to the BBC programme, food security and problems in the household.

In contrast, the BBC radio soap opera *New Home, New Life* had a positive effect in reducing mine injuries. In urban areas a person who did not listen to the programme was eight times more likely to have an upper-body injury than a person who listened to the programme. Among the 14 upper-body injuries suffered by listeners, three occurred after 1994, when the radio programme began. Of the 16 injuries suffered by non-listeners, five occurred after 1994. Occupation and indicators of income did not explain the difference.

Findings from Angola. To learn how people assimilated messages they received from mine-risk education messages in Angola, fieldworkers asked how householders had changed their behaviour in response to mine-risk education messages. Most respondents (60%) said that they had started to use safe paths. This is encouraging, as is the report from almost all (95%) that they had changed their behaviour in some way after exposure to radio messages. Only 13%, however, said that they had stopped entering minefields altogether.

For children, the impact of direct training on behaviour appeared to be negative. Children who had recently attended PEPAM classes were 3.5 times more likely to say that they *had* entered minefields than those in the same schools who had not attended such classes (odds ratio 3.5, 90%CI 1.5–7.4, 13 entered in 2646 person-months compared with two in 1422 person-months).

Children's understanding of bravery, likely to be conditioned by the local

landmine culture, might help to explain what encouraged those exposed to PEPAM to enter minefields. The PEPAM programme may have inadvertently crossed wires with existing beliefs, turning them into frankly dangerous attitudes. However, although the programme seemed to contribute to dangerous behaviour among children, at the time of the evaluation it did not appear to be associated with any increase in mine injuries and death.

By far the most frequently cited reasons for entering mined areas in Angola—voiced in focus groups and by households—related to hunger and the satisfaction of basic needs (such as food, water and firewood), subsistence farming and income-generation through agriculture and grazing. Other households simply said that there were ‘no alternatives’ to going into a mined area. This coincides with the observation of at least one programme manager that mine accidents had increased dramatically during one recent period of food and firewood shortage. He noted that the threat of hunger had simply become greater than the threat of mines. This also corresponds with reports of actual activities at the time of an accident: farming was cited 35% of the time, and travelling, which may have been related to income-generation, apparently caused 41% of the accidents.

Awareness of mines

In both countries, there was a high general level of awareness of mines and UXO among communities, although some specific areas of mine awareness were weak.

Findings from Afghanistan. Despite people’s general awareness of the presence of mines in Afghanistan, their knowledge of specific mine localities appeared to be quite low. When asked if they knew there were mines in a specific field (a test field that had been identified as mined before the interviews in order to probe residents’ knowledge), 57% of household respondents said they did not know.

That the mine-awareness programmes did not seem to be filling this knowledge gap was underlined by people’s answers when asked what they had learned from programmes. When referring to the successful BBC programme, 22% of adult male listeners said that they had learned nothing or that they had learned very general lessons (do not enter minefields and deserted buildings, do not touch mines). A handful said they had learned the more useful lesson of watching out for signs. Asked about direct training, many householders in mined areas also said they had learned nothing (the number who said this varied greatly by region—the question would have to be taken up at the community level). Among those who claimed to have learned something the answers were diverse, with the largest group saying they had learned to pay attention to minefield markings.

Findings from Angola. Beyond the knowledge that ‘mines maim and kill’—which 98% of Angolan adults said was the main thing they knew about mines—the messages adults recalled from radio warnings did not seem to go beyond what they must already have known: that mines are dangerous (45%), that you should not touch them (34%), and that you should ‘watch where you walk’ (19%). Several men’s focus groups noted that people might be at risk because they did not know how to identify a mined area.

Mine-risk education programmes seem to have raised children's knowledge about markings. Children who had received PEPAM training were more able to recognise standard mine markings than children at the same schools who had not received the training (odds ratio 1.6, 95%CI 1.1–2.2, 312/469 vs 141/253). Only 15% of children interviewed in Huila and 34% in Uige were able to name an officially recognised mined area in their locality.

Talk about it: warning others

The sustainability of mine-risk education programmes can be seen in the extent to which people reached by the programmes share the messages with others in their communities. The surveys revealed that, in general, people did not promote mine awareness locally.

Findings from Afghanistan. In Afghanistan the very partial knowledge about mined local areas and answers about who promoted mine awareness and who should promote it all indicated little socialisation of information about mines. In household interviews 85% of respondents said that nobody promotes mine awareness. Even if 'mine awareness' were equated with formal classes in their understanding, it is revealing that they did not even consider their own efforts as a form of knowledge promotion. Most others pointed to the efforts of community leaders (either the mullah or the *malik*). In focus groups, when asked who should promote awareness, only one group said that everyone should warn others. Most focus groups identified community leaders, elders and teachers, and only a few suggested parents.

Of those men who had attended direct training, 57% said that their wives had not been exposed to mine awareness; it thus seems that they were not passing on the information themselves. Although 70% of respondents said they felt confident in their ability to communicate mine awareness to others, only 0.6% said that they told others about the risks after receiving training. Again, when BBC listeners answered how their behaviour had changed in response to the show, only 3% said they had started to tell others about mine risks.

SC-US's training of children, which explicitly encouraged them to pass on messages about mine and UXO risks, seemed to be more effective. All children's focus groups with participants exposed to direct training claimed that they had passed on what they had learned to other members of their families. However, in the household survey only 3% of women had heard about mine risks from their children. This was particularly worrying given that women had no access to direct training programmes, less access to the BBC, and no exposure to a mullah.

Findings from Angola. The answers householders gave to the question of whether their spouses had been exposed to mine awareness suggested a low level of socialisation of mine-awareness education in Angola. Some 74% in Uige and 41% in Huila said that their spouses had been exposed to mine messages, but none cited themselves as the source of the information.

One of PEPAM's aims was to encourage children to bring mine-awareness messages home to their parents. The programme succeeded in increasing the rate

of communication from children to adults. Students who received training under PEPAM were twice as likely to have told their families about mines than those who had not. Some parents said that they had heard mine messages from their children, and this was more likely where the child had been exposed to PEPAM. However, the messages the children recalled giving did not go beyond the general refrains that mines maim and kill, are dangerous, and should not be touched.

Reporting events to officials

The majority of people interviewed in both evaluations said they *would* report a mine accident.

Findings in Afghanistan. Of the households interviewed in Afghanistan, almost all said that they would report a mine accident. When different programmes reinforced the same message, mine-risk education programmes made a positive contribution in this area. People in mined areas who were exposed to both the BBC programme and direct training were six times more likely to say that they would report an incident than people who had only listened to the BBC programme (odds ratio 6.2, 95%CI 3–13). Asked to whom they would report an incident, the majority cited a community or religious leader. Only one in four said they would report to the mine-action agency in their area. An obvious conclusion is that community leaders were in a position to encourage more reporting and were a potentially valuable asset to MAPA.

Findings in Angola. In Angola, the willingness to report was also fairly high. Overall, 81% of households said they would report a mine to authorities, especially to the *soba* or chief. Twenty percent said they would mark the mine themselves. Asked to whom they would report, half the children said to an ‘authority’ like the *soba*, a priest, a teacher or a de-miner, 40% said to someone in their own families, and 10% said to a member of the police or military. There was no difference in reporting patterns between PEPAM and non-PEPAM students.

Perceived benefits of mine smartness

In order to increase mine smartness, people need some sense that they will accrue personal and community benefits through mine-smart behaviour. This is difficult to measure, but one way of doing this is to assess the importance communities give to the problem of mines and UXO.

Findings in Afghanistan. Across the sample of communities in Afghanistan, one-half of the household respondents felt confident that they would not be injured by landmines. Not surprisingly, the general level of fear was higher in mine-affected areas: in Kabul, as few as 28% felt they were safe from mines. Exposure to mine-risk education programmes increased people’s feeling of immunity to injury. Men in mine-affected areas who had been exposed to training or had listened to the

BBC programme were slightly more likely to say they would never be affected by a mine accident than someone who had been exposed to neither intervention.

Among respondents from places affected by landmines, those exposed to both direct training and the BBC programme were significantly more likely to feel they would never be affected by a mine accident than someone who had heard the BBC programme alone (odds ratio 1.31, 95%CI 1.12–1.52, 934/2111 vs 433/1146) or someone who had received neither type of education (odds ratio 2.72, 95%CI 2.3–3.2, 934/2111 vs 249/1103). This could be related to a sense of security engendered by the mine-risk education programmes, but it could also indicate a false sense of security. People who felt they were not at risk of an accident were also *less* likely to feel they knew where minefields were and less likely to report incidents. This helps to make sense of the association between direct training and incidents caused by deliberate tampering. Acknowledging this issue would be important in any attempt to improve programme design. If people do not *see* themselves at risk, they will need concrete evidence to overturn this notion.

A household exposed to both the BBC programme and direct training was significantly less likely to have experienced food shortage in the previous year, compared with one that received neither type of awareness education (odds ratio 0.84, 95%CI 0.74–0.95). This was independent of the person's occupation, where he lived, whether or not he had tea in the household at the time of the interview (an indicator of available cash), and whether he had produced a food surplus in the previous year. The effect was particularly strong in those groups that, financially speaking, were the most vulnerable: the unemployed, the unskilled, farmers and those who did not produce a surplus in the previous year. This could indicate that, by increasing a sense of mine immunity, mine-risk education had a positive impact on people's sense of food security. The spin-off effects of this trend for peace building—through a reduction in overall social tension—merit further investigation.

Findings in Angola. One-half of the householders interviewed in Angola said that a mine accident could happen to them. About one-third of adults (32%) thought that mines posed a risk to their household activities. A similar number (29%) thought that landmines reduced their income every month by an amount equivalent to their average weekly expenditure on food (reported separately). Among children, 39% (285/728) of PEPAM students and 36% (155/432) of non-PEPAM students said that a mine accident could happen to them. The mine-risk education programmes at schools seemed to have heightened the perception of personal risk, if only slightly.

Looking at the reasons students gave for believing themselves to be at risk (or not) provides some insight into levels of personal security. Overall, half the children who felt at risk said that this was because they might enter high-risk areas. The other half said they were at risk as a result of ignorance of mines and their location (40%), or because mines were generally dangerous (10%). None of these answers indicates a high level of confidence in their own ability to limit the risks they face. The answers given by those who said they were not at risk were more encouraging. Overall, most (78%) said they were not at risk because they would not go into abandoned places; 11% said they knew that mines maim and

kill; and 6% said they were safe because they were careful. Only 10.5% said their risk was low because there were no mines in their communities.

Responding to the problem

Refusing to resign oneself to the inevitability of landmines is a high watermark of mine smartness. When people show a willingness to take action or develop alternatives to minimise risk, they are making a positive adjustment towards mines.

Findings in Afghanistan. Asked what they could do to solve the problem of mines, most people suggested keeping the marking system (36%), warning people (36%) and keeping in contact with mine-action agencies (22%). No household respondents thought that communities might request clearance, a ban and support for less risky alternatives to necessary activities. Notable was the degree to which householders depended on external interventions. Seventy-four percent of those who answered the question about how to improve mine smartness said that it could best be improved through formal education courses. None suggested that the problem might be diminished or solved by finding viable alternatives to risky behaviour. There were no notable differences between those who had received direct training and others, or between BBC listeners and non-listeners.

The drive to look for and develop alternatives did not seem strong, nor was it encouraged by external programmes (among those receiving direct training in mined areas, only 42% had learned about alternatives). On the other hand, according to the majority of people interviewed, mines did not significantly disrupt daily activities (at least not those related to income generation). Although this would have to be taken up at the community level, it is possible that endogenous knowledge systems have already provided most communities with the mine smartness they need to carry out activities necessary to their well-being with as little difficulty as possible, short of removing the mines.

Findings in Angola. In Angola, there was a widespread sense that poverty and desperation prevented people from avoiding risk. This did not seem to be so much a failing on the part of mine-risk education programmes to help identify alternatives: 80% of householders overall said they had learned about alternatives. After requesting information about viable alternatives—itsself an indication of local initiative—30% of householders suggested that mine-awareness campaigns were the best way to persuade people to stay out of mine-fields.

Answers to the question of how to improve people's mine smartness revealed a similar sense of dependence on external initiatives. Most householders (93%) said that the best way would be through mine-awareness campaigns and workshops.

Even though most people clearly understood the need for alternatives, the majority seemed not to have thought through the implications of the issue. Asked, for example, to describe the kind of posters most needed, they called for

traditional posters that would ‘show that mines are dangerous’.

A full 65% of householders said they did not have sufficient food in the week before the survey. There seemed to be little relation between reporting recent food sufficiency and having received mine-awareness messages. This may mean either that mine-risk education programmes are not as effective as they could be in increasing a sense of food security, or that they are unable to do so in the desperate circumstances faced by many of the people in these two provinces. A significant number of people stated outright that there were no alternatives for making a living, and the majority looked for outside support even to identify alternatives. It therefore does not seem likely that alternatives will arise without outside intervention.

How programmes hit and miss the mark

As illustrated in the summary below (Table 1), the interventions evaluated in Afghanistan and Angola showed a mixed impact on improving mine smartness.

In Afghanistan, the BBC programme *New Home, New Life* showed evidence of promoting a culture of sustainable local mine action. This positive impact probably resulted from the fact that the messages about landmine risk were embedded within a larger social context, dealing with such issues as food security, safe drinking water, health and gender roles.

The BBC approach acknowledged the endogenous mine-smart culture, recognising the risks and trade-offs people face in translating knowledge about mines into safe behaviour. Instead of being passive recipients of a bland message, listeners could engage with and enjoy the programme’s storylines, characters and humour.¹⁰

The direct training programmes in Afghanistan seemed to have the opposite effect, and it was not difficult to see why. In mine-affected areas in that country, 37% of participants in direct training sessions said they could not ask questions during the training. Asked whether there had been a discussion of alternatives to risky behaviour, only 42% of this same group said that this had been the case. Redressing the knowledge–behaviour gap would require an interactive style of training, where trainers create an environment in which people discuss and take responsibility for identifying the locally specific risks where information from MAPA is uncertain or lacking. The style of training at the time of the evaluation was characterised by ‘mine stuff’: this is a mine, this is the detonator, this is what happens if you stand on it, don’t walk where you see this sign, etc.

In Angola, PEPAM succeeded in several important respects. Children who had recently undergone the school-based programme were more likely to recognise standard or informal markings, to recognise mined areas with no markings, to state that there were no mined areas nearby when there were none, to talk to their family members about mines and UXO, and to feel that they might have a mine accident. In some respects, the programme was unsuccessful in improving awareness. PEPAM students were less likely to stay out of a known mined area, to recognise high-risk sites or to tell their family members what to do if one encounters a mine.

Although PEPAM students were more likely to communicate with family

TABLE 1
Summary of the impact of interventions on mine smartness

	<i>Direct training: Afghanistan</i>	<i>BBC radio programme: Afghanistan</i>	<i>PEPAM: Angola</i>
1. Safe behaviour	Negative Mine events increased in areas after programmes began.	Positive Less risk-taking among those exposed, with impact increasing when combined with direct training.	Positive/negative Most respondents said they had changed their behaviour after training but 'trained' children were more likely to enter known minefields.
2. Awareness of mines	No evidence of any impact.	No evidence of any impact.	Positive/negative Children exposed were more able to recognise mine markings, but less able to pick out high-risk sites.
3. Talk about it	Positive/negative Children who received training said they talked to families about risks. However, only 0.6% of men trained said they told others about risks, and very few shared information with wives.	Negative When asked how they changed after listening to the show, only 3% said they started to share information with others.	Positive Children exposed were more likely to tell their families about mines.
4. Report events	No evidence of any impact.	Positive Synergy between BBC and direct training: people exposed to both were six times more likely to report.	No evidence of any impact.
5. Perceive benefit	Positive/negative Exposure increases sense of immunity to mine injury, with potentially positive and negative consequences.	Positive/negative Exposure increases sense of immunity to mine injury, with potentially positive and negative consequences.	Positive Small (39% vs 36%) benefit in perception of vulnerability.
6. Respond to the problem	42% had discussed alternatives.	No evidence of any impact.	Positive Most said they learned about alternatives during training.

members about mines—a positive and anticipated finding—the main messages they passed on were that 'mines are dangerous' or that 'mines maim and kill'. This shows receptiveness to the perhaps self-evident dangers of mines, but fails to concentrate the communication opportunity on how to recognise signs of mined areas, safe ways of passage and what to do if one encounters a mine—elements that would reinforce mine smartness.

Conclusions

A small programme limited to a select constituency can easily show a high level of acceptance among beneficiaries. The challenge is to take the programme to scale, reaching all those who need it. In addition to the question of scale, essential to a community-driven process is involving communities more actively in finding evidence and local solutions to landmines. This is part of and supports a welcome shift from 'mine awareness' to 'mine smartness', reinforcing the already largely effective, home-grown coping mechanisms that individuals and communities employ. At the experts' conference in 1997, the first *Guidelines for Mine Action Programmes from a Development-Oriented Point of View*—the Bad Honnef Framework—were proposed as the first explicit link between mine action and sustainable development.¹¹ These guidelines offered a critical framework for planning and evaluating mine action at the local level, giving primary importance to local empowerment and the creation of community-driven processes.

Where local systems are not providing people with the confidence they need for their well-being, there is a positive and necessary role for outside initiatives to build a realistic sense of security. Without attention to this aspect, the awareness that programmes promote may actually erode confidence. The aim should be to promote neither a paralysing fear nor a diminished respect for mines, but to inspire a confidence in one's own ability to behave in a way that limits personal risk.

CIET's experience in Afghanistan and Angola confirms the importance of including community aspirations in designing and evaluating mine-risk education programmes. Local survival mechanisms evolve as a matter of course, whether or not mine-risk education programmes are present. When programmes ignore the local knowledge systems and practices that constitute mine smartness, they can cause the situation to deteriorate and at best achieve less than they had planned.

Notes

- ¹ N Andersson, C Palha da Sousa & S Paredes, 'Social cost of landmines in four countries: Afghanistan, Bosnia, Cambodia and Mozambique', *British Medical Journal*, 311, 1995, pp 718–721.
- ² A Millard, K B Harpviken & K Kjellman, 'Risk removed? Steps towards building trust in humanitarian mine action', *Disasters*, 26 (2), 2002, pp 161–174.
- ³ I Guijt & J Abbot, 'Changing views on change: participatory approaches to monitoring the environment', *SARL Discussion Paper No 2*, London: IIED.
- ⁴ M Estrella (ed), *Learning from Change: Issues and Experiences in Participatory Monitoring and Evaluation*, London: Intermediate Technology Publications, 1999.
- ⁵ N Andersson, E Martinez, F Cerrito, E Morales & R Ledogar, 'The use of community-based data in health planning in Mexico and Central America', *Health Policy and Planning*, 4, 1989, pp 197–206; and R Ledogar & N Andersson, 'Impact estimation through sentinel community surveillance: an affordable epidemiological approach', *Third World Planning Review*, 15 (3), pp 263–272.
- ⁶ N Andersson, 'Socio-economic costs of anti-personnel mines', Government of Canada, Ottawa, 1998, at http://www.mines.gc.ca/vii/vii_a_xi_e_1-en.asp, accessed 3 June 2003.
- ⁷ N Andersson, C Whitaker & A Swaminathan, 'Afghanistan: the 1997 National Mine Awareness Evaluation', CIET/UNOCHA, Islamabad, 1998, at <http://www.ciet.org>; and A Swaminathan, C Whitakar, N Andersson & H Barlevi 'Angola Mine Awareness Evaluation', UNICEF, DIFAIT and CIET, Luanda, 2000, at <http://www.ciet.org>.
- ⁸ Translated from Portuguese: Education Programme for the Prevention of Mine Accidents.
- ⁹ The odds ratio is an estimator of average individual risk of an outcome (like going into a known minefield) among people exposed (in this case to mine-intervention programmes), compared with the

average individual not so exposed. Mathematically, it is the product of the number with both exposure and outcome and those with neither exposure nor outcome, divided by the product of the number with outcome but without exposure and those with exposure but without outcome. An odds ratio under 1.0 implies that an exposed person is *less* likely to experience the outcome; an odds ratio above 1.0 implies an exposed person is *more* likely to experience the outcome than someone who is unexposed. See N Mantel & W Haenszel, 'Statistical aspects of the analysis of data from retrospective studies of disease', *Journal of the National Cancer Institute*, 222, 1959, pp 719–748.

¹⁰ A Skuse, 'Vagueness, familiarity and social realism: making meaning of radio soap opera in South-East Afghanistan', *Media Culture and Society*, 24, 2002, pp 409–427.

¹¹ The concerns motivating the Bad Honnef project are articulated in 'Mine action in the context of social integration: on the way to an effective abolition of mines', a paper presented by Medico International Executive Director Thomas Gebauer at the 1997 Ottawa Treaty signing conference roundtable on 'Integrating Mine Action into Development'; and in 'Building a social transformation perspective for mine action programmes', a paper by Centro de Estudios Internacionales Director Alejandro Bendaña at the second Bad Honeff experts' conference. The latter paper and the revised guidelines are available at the website of the German Initiative to Ban Landmines, <http://www.landmine.de>, accessed 4 March 2003.

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