

Mine Awareness: A New Approach

The proper integration of mine awareness, Level 1 and 2 surveys, and EOD can produce a synergistic effect that would benefit everyone involved in a mine action program. This concept has been used before but needs to be more widely utilized.

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Introduction

Normally, all aspects of Mine Awareness (MA) are conducted in parallel with, but often separate from, Survey and Clearance. In addition, Level 1 Survey officially precedes Level 2 Survey. And finally, Explosive Ordnance Disposal (EOD) is often done during Level 2 Survey, but may also be conducted by a stand alone resource. There are good and historical reasons for these being independent and/or linear functions; however, it does lead to gaps in the overall solution to the mine and UXO threat.

The concept involves marrying often independent and linear components into one operation, to create a cycle of feedback and incentive, producing an operation with synergy that gives greater benefits to beneficiaries with equal donor resources. The concept is that (Community) MA, Level 1 Survey, Level 2 Survey and EOD are most effectively and efficiently utilized when combined into a unified operation. When properly done, this produces a synergy that will lead to direct benefits for the recipients, donors and practitioners. When the components are combined into an information and activity cycle, they will produce better information and better plans and therefore more safety for the beneficiaries and more precisely directed resources.

Reasons for Changes - Desk Experience

The problem of mines and UXO is multi-faceted. The solution is simple: re-

move all the mines and UXO, sort out the victims and produce no more devices. The problem with that, however, is that the resources available to do this are not equal to the task. They fall far short, in fact.

It is imperative, then, that solutions take into account this shortage of resources when they are developed. Solutions must be crafted and executed in such a way that maximum benefit is given to the people on the receiving end. Any solution that does not take into account the most efficient utilization of resources, any plan that does not take into account the ultimate end use of every penny or the impact of every resource input, is less than a proper solution. To this end, aspects of two of the four pillars—MA and Mine Survey and Clearance—can be combined to give a greater impact for resources spent.

Because there are and will be insufficient resources available, the approach to the problem is moving from a clearance based solution (take them all away), to a management solution (clear the vital stuff and give the community the ability to live/work alongside the threat). For example, we know that there are mine fields in Denmark from WWII, but life and the economy continue. While Zimbabwe may have more mines than Mozambique, the Zimbabwe border mine fields produce fewer casualties in terms of people, animals, lifestyles, etc. than the scattered and unknown mine and UXO threat in neighboring Mozambique.

Clearly, coping mechanisms exist and can be used with great effect. The important part of the management solution is getting the right information so that the vital locations can be cleared, and producing the right information/abilities

to allow the community to get on with life.

Reasons for Changes - Field Experience

How MA got into Survey

Most of this experience comes from conducting mine action operations in central Mozambique, for the German Development and Cooperation Agency (GTZ) from 1994 onwards but especially from 1997 to 1999, for CARE in Kosovo in 1999, and especially Somaliland in 2000, where the closest version to this concept was put on the ground and was very successful.

Initially, during emergency refugee repatriation work (GTZ/Mine-Tech) into Mozambique in 1994, it was found that information gathering was enhanced with simple MA lectures. Put most simply, when asked if there was a mine threat in the area, the local people could make no comment. When given a simple mine and UXO recognition lecture, people suddenly recognized the shapes, sizes, colors, etc. and could give Level 1 information. This was continued through the years into village clearance projects (Survey, followed by Clearance), and it was then found that the Level 2 Survey team (which included EOD support) were often given more and better information that had not been given to the Level 1 Survey team.

Incentive

Two factors were involved in the success of the Level 2 Survey teams:

- The Level 2 Survey took much more time, during which the team lived near the community, interacted with them and gained their confidence; and
- The incentive provided by removing and destroying things (e.g., UXO), but often just harmless but suspicious items, made the people more interactive. They had not felt motivated to hand in information previously, just for the sake of

handing in information. Now, everyone could see a benefit in giving information.

Information

Poor information had two severe consequences. First, the lack of knowledge in communities led to casualties caused by people doing things they should not have done, and going places (or sending their livestock to places) where they should not have gone. The vast majority of casualties I have encountered, in every mine/UXO risk area I have knowledge of except Afghanistan, have come from people touching/tampering with UXO. This is closely followed by people touching or going into mined areas about which they knew nothing. Invariably, casualties are caused by ignorance (ignorance being simply a lack of knowledge).

Secondly, "mine fields" that do not exist but are firmly believed to exist retard progress in the same ways known mine fields do. This applies equally to suspicious devices that are actually car parts (Mozambique), old stoves (Kosovo) or the grave of a tortoise (Somaliland), all of which halted progress in some manner.

In addition, both of these "information failures" hamper the external relief effort. (Hereafter, the term "external" will be used to refer to all actors outside of the benefiting community, be they professional, commercial or NGO clearance, MA organizations, or aid, development and relief agencies, etc.). Suspect areas and mine fields that are not known cannot be dealt with. This is the smaller problem, as invariably, someone in or around the community has information on every suspect area, and eventually this will come out. Reasons why this is not shared with the rest of the community are numerous.

The larger problem for the externals are the "mine fields" that do not exist. In most cases, it takes as long to clear an area with no mines as it does to clear a heavily mined area. The major factor slowing clearance is vegetation coverage. Therefore, good information gathering during the survey stages can lead to early discrediting of suspect areas, which in turn frees resources for other tasks. Good information leads to a greater impact for the beneficiaries.

Another problem encountered in the field was survey/clearance/EOD activities that were not understood by the commu-

nity. The most common example of this is an external EOD capacity that visits an area that contains both mines and UXO after a report. The team destroys the UXO (often with a loud bang), and the local population then believes the entire threat is eliminated. However, while some devices have been destroyed, a mine field remains. The people have not been told, nor do they understand, the difference between clearance and EOD tasks, and we end up with further casualties, a crisis of confidence in all survey and clearance activities, and previously cleared areas becoming suspect areas again.

How the Concept Works

As is seen in the diagram, all components are interlinked, and ideally, "under one roof", with a common manager who is responsible for the entire concept, rather than any one component of it. The concept may be applied to a specific area, and each component strengthened or weakened depending on the needs for that component. However, every aspect is vital and equally important.

MA, MA Training, Mine Risk Edu-

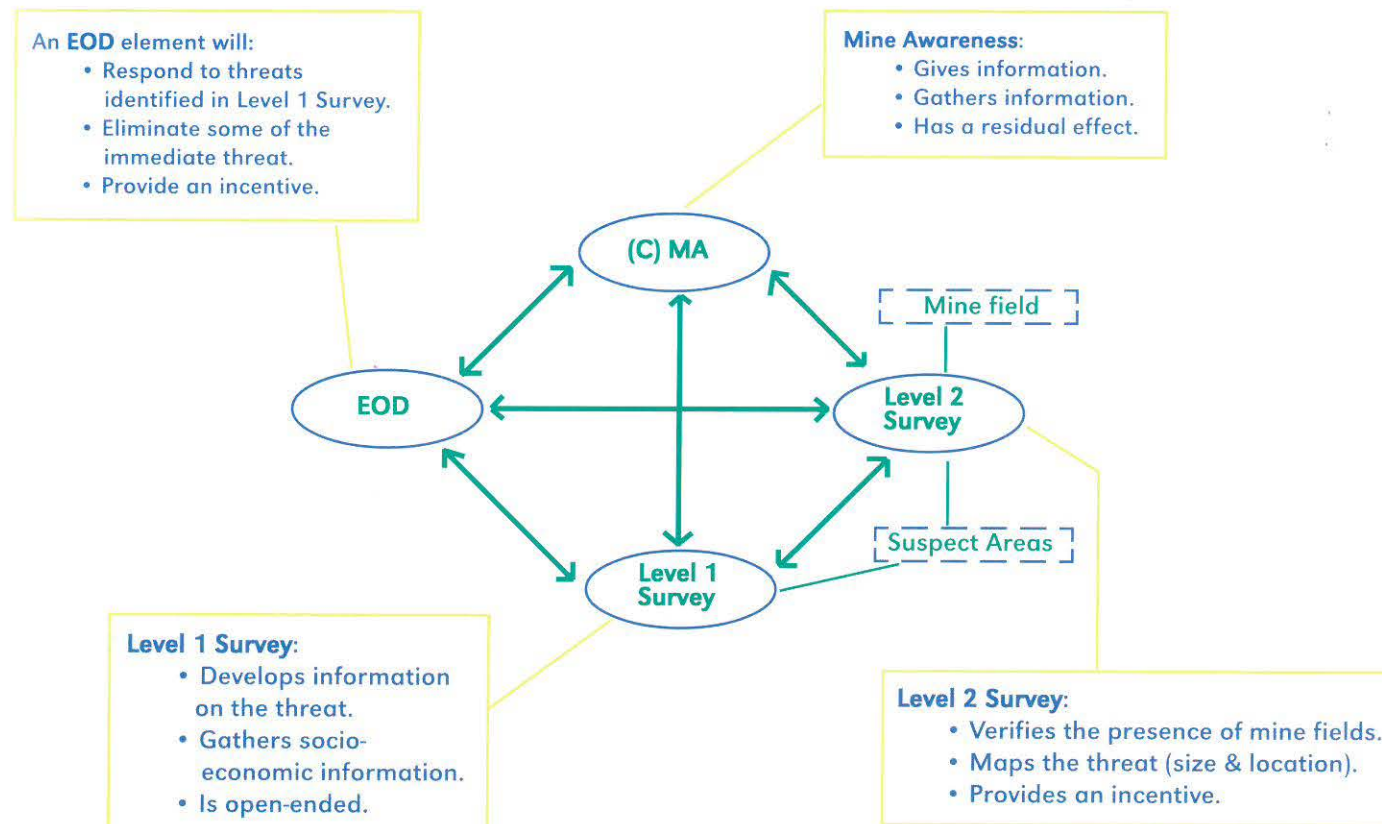


Diagram - A. Jackson, Mine-Tech

cation, etc. is a large pillar of Mine Action, and in general involves passing mine/UXO information, in many specific forms and for many specific reasons. Within this concept, the largest portion of MA utilized is that which is given and aimed at communities. However, the larger MA activities—national/mass media/education—must remain linked to and be part of the cycle of the operation. That is, the concept feeds, and is fed/served in return by, the larger, MA activities.

Community MA (CMA) must be adapted to include training and enabling in *coping mechanisms*, the development of a *community database*, and the *development of a community information network*. The community must be able to conduct its own Level 1 Surveys i.e. updating and sharing information. The CMA messages must include the ongoing activities and results of the external's work—i.e. what they have found or not found in their surveys.

Coping mechanisms, aside from the database and information network, for example, involve how to access resources (firewood, water, grazing land) when a portion of those resources are cut off due to the mine threat. This threat usually affects some more than others. People must also be taught how to cope with found items, both in the long term (considering the external aspect of the program will eventually end) and in the short term between EOD visits—usually a marking exercise, and hopefully not a “picking them up and throwing them down a disused toilet” exercise. The derived problems of the mine threat will be immense and varied, so coping mechanisms must be imaginative, and at best suggested by the external, because the mechanisms must be sustainable, and for that to happen, they must come from the community.

There must be two databases: central authority and community. Both must be fed with the same precision and zeal. While the externals will be using the central database, invariably involving written records or more commonly networked computers with full color displays backed up on CDs etc., these have serious limitations. Primarily, because access is virtually impossible for most common people (especially in mine affected countries), the central database is as nebulous

as a space program, and therefore just as likely to be supported. The incentive is not there.

The community database is stored in the heads of the community. It may be backed up by community mapping, historical timelines and other participatory techniques, but is mainly backed up by constant discussion and regular inputs. It is accessible to all who can ask and listen, and is readily available to anyone who visits the area.

The information network is the system whereby all reports (from the community or the externals), coping mechanisms, etc. are processed, so that everyone in the community database is backed up. This is a difficult aspect, especially in communities where there are less than two casualties a year (which includes almost all communities I am pleased to say). People get bored. Information gets garbled or exaggerated or undervalued or some details that are wrong are simply passed on, etc. There are also usually good reasons why some in the community do not talk to others—especially in a post-conflict situation. The community needs to be monitored, or checked, to see if the information is getting through to all elements and levels.

The benefits of having an information network, as with coping mechanisms and the database, must be understood, and the community made to understand. The primary reasons for involving the community returns to information. If the community is involved, there will be better information coming from the individuals. The involvement of the community leads to better priority setting. This is further enhanced if there is a development project linked with the concept. Involvement of the community in priority setting also provides an incentive, which feeds the information cycle. As resources available will not solve the communities mine problem (hence the formation of this concept), they must be made aware that they will have to cope. Therefore, there must be community participation if mine fields are to be left. And there will always be a residual threat, much as there is from WW II in Europe.

If the community is made aware and can see that better information leads to better utilization of resources and hence

increased benefits to the community that also feeds the information cycle. It must be pointed out that benefits range from the direct ones—more area cleared, devices removed, bogus mine fields eliminated without clearance, etc. to the indirect ones—boreholes, clinics, schools, roads, agricultural projects; all the kinds of development work that stays away because externals are afraid of the mine threat.

The incentive aspect should not be any personal benefit to an individual, but rather to the community as a whole, and the incentive must *never* be money.

While the CMA practitioners will invariably also conduct the Level 1 Surveys, the CMA practitioners must be the same people as those doing the Level 2 Survey and EOD work. Personnel should at best be interchangeable through all components, and at least be in the same organization, eating and sleeping in the same places (since they are already working in the same places), and be totally familiar with how the other components work.

Survey is the gathering of information, therefore; Level 1 Survey is the gathering of general information, and Level 2 Survey is the gathering of technical information.

Thus, Level 1 Survey can be conducted by anyone who can listen and retain information. Level 2 Survey requires a Mine Clearance capability to international standards (including medic, ambulance, communications, mine detecting equipment, personal protective equipment (PPE), demolition tools, etc.).

Level 1 Survey, for the purpose of this article, is not limited, nor does it always include, the filling in of an IMSMA Level 1 Survey Impact form (or any local equivalent). It involves any gathering of any information on the mine and UXO threat, usually based upon:

- Local Information (no-go places),
- Casualties (human, animal and vehicles)
- War History (the nature and specific places on fighting)
- Specific Informants (people who were involved, or were present, during the mine laying/fighting).

Level 1 Survey is never, and can never be, finished, or complete. You cannot get all the correct information from all the people the first time. There is al-

ways more information out there. A Level 1 Survey exercise can be finished, and can be a good foundation for plans, but the database must never be closed to incoming information.

Level 2 Survey involves clearing portions (taking survey samples) of Suspect Areas, usually in the form of cleared lanes extending into the Suspect Area. From the information gathered during this operation, which includes mines found, blast holes, specific shrapnel or other debris, bodies/bones, etc. the Suspect Area should be turned into an area with no evidence of a mine field, or a mine field that is defined—that is to say, the perimeters are marked and mapped. In some situations, it has been argued that once verification is complete, precise boundary marking should be left as the resources used to do this could be better used on other sites.

EOD provides the most dramatic incentive, and EOD work involves both items being destroyed and removed or rendered safe by safe investigation and explanation. The EOD component, like all others, must produce feedback. Feedback refers to the constant feedback and information transfer both to and from communities. This brings them into the solution, and provides better information. This in turn can be used to sharpen the MA component, put resources into the highest priority areas and enhance relief or development activities. These allow better feedback to the communities in a cycle that will constantly enhance information and community safety.

Benefits

- Specifically, the information flow involves the community; therefore, it produces better prioritization. The community learns to manage its own threat, the management is sustainable and socio-economic information leads to better relief or development efforts.

- By providing an immediate action, the highest threat is eliminated (usually random UXO), suspect areas are eliminated and the incentive increases community involvement which leads to better information received.

- The community receives MA information, and because of constant feed-

back, the MA training can be upgraded and modified to address and alter specific dangerous behaviors—the classic reasons for casualties. Having the components under one roof makes for a speedier response. There is minimal lag time between information coming in and a response to it.

- Prioritization is done by all stakeholders (community, developer, mine expert, etc), so maximum impact is achieved. Suspect areas are eliminated, and resources are not used in unnecessary clearance.

- As the concept employs standard, common Mine Action components, there is no increase in the inputs or the resources utilized. The cost therefore does not increase. The change comes in the employment of those resources and components. The constant cycle of feedback and incentive results in the most cost effective employment of those resources towards the solution to the mine/UXO problem. With donor fatigue, this is increasingly important to communities.

Conclusion

The concept can be employed on any geographical or economic scale. It may also be used equally in new and old threat situations. One key aspect will be the common manager of all the components, and the area they work in should be such that everyone from the external agency can be familiar with all of the community they are dealing with. This will depend on the time available, the work to be done (how much is to be left behind), the level of the threat and the density of the population. As all personnel involved in the concept should be reasonably interchangeable, no one should be underemployed at any time.

The person managing this concept must be adept, or at the very least, have an understanding of all the components involved, how they operate (with knowledge of international standards) and how they are best utilized. This person (the practitioner) must also be able to understand, store and present the information to all concerned, as well as ensure that it is used within the concept to maximum benefit.

The result should be an area where

each community has a trained volunteer/facilitator, they have seen some betterment of their lives, the priority areas (as defined by all stakeholders, development and community) have been verified and some threat has been eliminated, and a reasonably accurate picture (database) has been formed and this is in the hands of the donors, the central authorities and the communities.

It should also be noted that a community need not be limited to a rural or village community. For example, the health working community is also relevant, and can be substituted as “the community” into the concept in all cases. They equally need to have coping mechanisms, develop their own threat database, inform each other of dangers and utilize the information to plan clinic development, clinic visits, etc. They may also be the main stakeholder requesting the Mine Action, and therefore, most in need of involvement in priority setting. In a commercial setting, the concept can also yield dividends. For example, a gas pipeline is being built over 400km of mine-threatened country. How does one decide where to clear, what clearance is necessary, etc.? In this respect the concept can be equally “sold” to the construction company and construction workers as one community, and by having the project fund CMA, EOD work, and Level 1 and 2 Surveys along the projected route they will obtain the best information possible, thus saving casualties or their own money that might otherwise go to unnecessary clearance. This will also benefit the rural communities on the ground and the national community as a whole. ■

Biography

Michael Labon has worked for Mine-Tech and is now operating as an independent consultant. He is currently finishing his dissertation for his Masters Degree in International Relations.

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