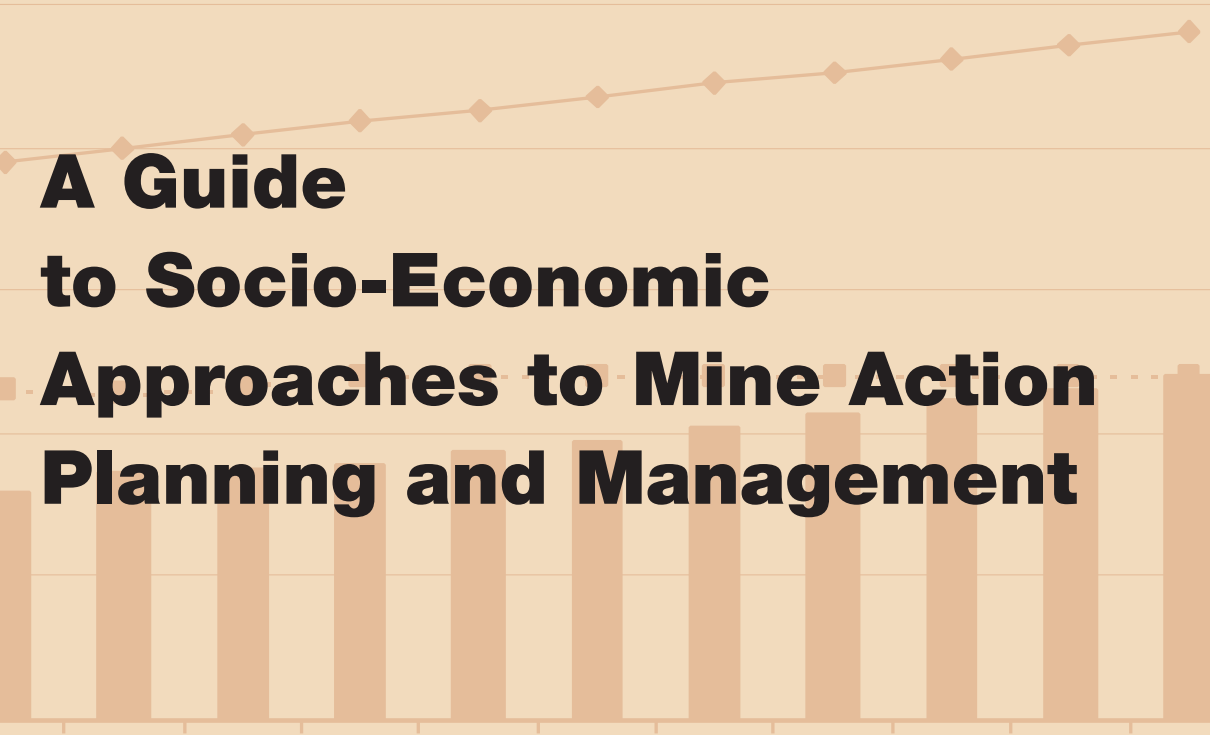




A Guide to Socio-Economic Approaches to Mine Action Planning and Management



**Geneva International Centre for
Humanitarian Demining
Centre International de
Démunage Humanitaire - Genève**



***A Guide to
Socio-Economic Approaches
to Mine Action Planning
and Management***

The **Geneva International Centre for Humanitarian Demining** (GICHD) supports the efforts of the international community in reducing the impact of mines and unexploded ordnance (UXO). The Centre provides operational assistance, is active in research and supports the implementation of the Anti-Personnel Mine Ban Convention.

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Introduction

The aims of the guide

The international mine action community has learned a great deal over the past 15 years, particularly concerning the efficiency and safety of clearance operations, setting up national mine action programmes, implementing landmine impact surveys and information management.

A Guide to Socio-Economic Approaches to Mine Action Planning and Management builds on these lessons learned, but focuses on the inter-relationships between mine action and a country's social and economic structures. It has been developed out of the *Study of Socio-Economic Approaches to Mine Action*, commissioned by the United Nations Development Programme (UNDP), as well as GICHD's broader programme of research and capacity building to support developmental approaches to mine action. The Guide is intended to assist national mine action authorities, mine action centres (MACs) and mine action organisations in improving their planning and management of mine action programmes.

The Guide is based on two underlying premises. First, the objectives of the national mine action programme should support the overall development effort of the country. Development has many dimensions, including better health and education, food security through sustainable agriculture, expanded opportunities for political expression, protection of human rights from arbitrary actions by the State or by the economically powerful, and fostering communities in which people can raise families in safety and in harmony with their neighbours.

Other individuals, communities, and organisations are working simultaneously to promote development, and their efforts will also be affecting the structure and strengths of the social and economic linkages over time. The ultimate impact of mine action on a nation's development depends on how well mine action coordinates with other development projects in order to magnify the benefits brought about by mine action alone.

Second, the true test for a mine action project is not whether it produces outputs (deminated land, "mine-aware" people, and so on) efficiently, but whether

these outputs are then used by local households, communities and organisations to enhance the well-being of the intended beneficiaries. Local social and economic structures will strongly influence whether this is achieved.

Accordingly, because the true measure of success of mine action is based on its impact on the local population, mine action planners and managers must verify that what their projects are producing is reaching, and is useful to, intended beneficiaries. If not, they must learn what local social and economic features are preventing the mine action programme from being effective. Managers must monitor not only the immediate *outputs* produced by their projects (cleared land, numbers of MRE sessions, etc.), but also whether these lead to useful *outcomes* (productive use of the land, safer behaviour by civilians, and so on) and have a lasting impact on the lives of those in mine- and unexploded ordnance (UXO)-affected communities.

Box 1. Efficiency versus effectiveness

A mine action programme should strive for effectiveness as well as efficiency. These two concepts are often confused or used interchangeably but their meanings are quite distinct.

Efficiency measures how well inputs are converted into outputs. For example, a mine clearance team might be judged efficient if it clears more land to the International Mine Action Standards than other teams, without sacrificing safety. In other words, efficiency implies doing the job right.

Effectiveness is a measure of whether, or how far, the objective has been achieved. For example, mine clearance in a community might be judged effective if its operations allow the community to re-establish itself economically and socially. In other words, effectiveness implies doing the right job.

A project can be efficient without being effective. For example, a mine risk education programme might provide training to large numbers at low cost, but then find that those who received training have not altered their behaviour and continue to take risks with landmines or UXO. Similarly, an inefficient project can be effective by achieving its objectives, but at a higher cost than necessary.

Obviously, projects want to be both efficient and effective. We want to “do the right job” while “doing the job right”.

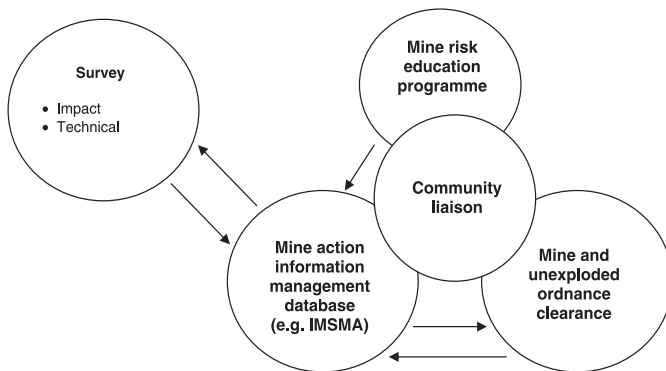
1

Information — the core of mine action

The value of information to mine action

“In many ways, mine action management is almost as much about information as it is about mines.” This was one of the main conclusions of the GICHD/UNDP *Study of Socio-Economic Approaches to Mine Action*. It is borne out by the increasing investment by the international mine action community in different forms of mine action survey and community liaison and various information management tools, especially Geographic Information Systems (GIS) and the Information Management System for Mine Action (IMSMA). Figure 1 illustrates the systematic role of information in a mine action programme.

Figure 1. Inter-relationships within a mine action programme



In the initial, emergency phase of a mine action programme, the primary objectives will be risk-reduction — clearing landmines and UXO that represent the most immediate threat to human life. But as the situation stabilises and the number of victims decreases, these objectives will gradually reduce in significance. Accordingly, the first steps in developing a new mine action programme — or radically reforming an existing one — are formulating and adopting appropriate programme objectives and a strategy for achieving them. This requires information.

The needs assessment

An assessment of the landmine and UXO contamination and its impact, together with the key social, economic and political features of the country, will lead to an understanding of the problems caused by the contamination – and hence the needs of the affected populations. A programme planner will typically have the necessary technical and institutional information but may not have gathered all the requisite developmental data.

Try to obtain as much as possible of the following — but bear in mind that much may not be available or reliable, particularly after prolonged armed conflict.

Geographic

- What is/was the pattern of current and former conflict?
- Where are the mine- and battlefields?
- What is the pattern of roads and bridges, and electrical and other utilities?
- Where are health/education facilities and administrative centres?
- What is the range of soil types and vegetal cover and climate zones and where are they located?

Legal

- Is there existing mine action legislation? If so,
 - does it formally establish the national mine action authority and MAC?
 - does it set out priorities for selecting mine action tasks? Are they appropriate? Sufficiently flexible?
- Has the government joined the Anti-Personnel Mine Ban Convention? The Convention on Conventional Weapons and its Protocol V on Explosive Remnants of War? Has it passed legislation to put these Conventions into effect in the country?
- What is the nature and extent of land ownership? Are there any plans for legal reform?
- What is the legal status of non-governmental organisations (NGOs) and other civil society organisations?

Institutional

- What is the existing/potential capacity of the MAC?
- What links does it have with other government departments and agencies, within or outside the national mine action authority? With supporting donors?
- What indigenous capacities for mine action exist?
- What local or international organisations capable of mine action operations are present?

Demographic

- What is the spatial distribution of the settled population?
- What are the numbers and likely movements of refugees and internally displaced persons?

- What are the numbers and migration patterns of nomadic groups?

Public health

- How many mine incidents are there and how many civilians have been affected (broken down by age, sex, position in household, occupation/livelihood)?
- What are the main reasons for risk-taking (e.g. ignorance, recklessness, economic or other survival pressures)?
- What is the capacity of public health facilities for treatment and rehabilitation?
- How many victims are reaching treatment centres?

Public policy

- What is the national economic and social development strategy?
- What is the degree of political and administrative decentralisation?
- What is the relative importance of mine action versus other public policy issues?
- What are the government's attitudes toward, and mechanisms for, dialogue with donors?
- What is the government's privatisation policy and policy toward foreign-owned commercial companies?

Social

- What are the household and community structures across ethnic groups?
- What are the household coping strategies (e.g. following loss of household head, or injury to a family member)?
- What are the traditional forms of community support and key social institutions (religious, ethnic or self-help)?
- How prevalent are community-based organisations?
- What is the sexual division of economic assets and activities?

Economic

- What is the level and structure (sectoral, geographic, public-private, market-subsistence) of economic activity?
- What are the principal and secondary sources of livelihood in contaminated communities?
- What is the extent of commercial activity and dependence of affected populations on factor (supplies, labour, credit) and product markets?
- What are the types of land, resources, and infrastructure affected by mines and UXO?
- What is the degree of inequality and pattern of poverty?
- Where are critical natural resources located?

The actions of other development actors

- What are the plans of government departments, United Nations (UN) and donor agencies, international and local NGOs, and mine-affected communities

- How will they impact on mine action operations and outcomes (e.g. will resettlement plans draw people into contaminated areas)?
- What lessons have been learned by other development actors in implementing programmes in the country?

Box 2. Information gathering in Kosovo

The extent of the mine and UXO threat in Kosovo became relatively well known after a short time. An initial rapid survey of contamination by the HALO Trust indicated that a long-term mine action capacity would not be required. Given the huge concentration of mine action and other resources in the province, the UN Mine Action Coordination Center (MACC) decided that a full Landmine Impact Survey (LIS) was not appropriate. However, future plans had to be based on more than just mine location data and, as a result, the Survey Action Center (SAC) proposed a modified LIS.

For Kosovo, IMSMA imported all existing records of minefields, UXO and cluster bomb strikes as danger areas. Each record was automatically assigned a number based on its date of entry into the database. Some seven separate data sets were combined to form the IMSMA danger area set. The approximately 4,000 records were, inevitably, of varying reliability.

The basis for the prioritisation methodology used by the SAC and the MACC linked a public safety/hazard analysis and LIS based on geographically-defined areas. It was reasoned that civilian populations go about their social and economic activities in a geographic space. When parts of these socio-economic spaces are denied, due to mine or UXO contamination, normal activity exposes the population to greater risk of death or injury. By selecting certain activities and defining these boundaries as “essential livelihood space” it was then possible to identify the contaminated areas that posed the greatest threat.

After generating a GIS model of the essential livelihood space it was possible to attach values based on social and economic assistance programme priorities. International relief and reconstruction programmes determined project priorities based on sector-specific criteria. Depending on the focus of any given programme, the sector priorities were usually assigned by town/village, municipality or geographic region. By compiling the sector priorities for relief and reconstruction resource allocation, it was possible to identify the relative geographic concentration of such resources across all of Kosovo. It was reasoned that towns and villages in areas with a heavy concentration of relief and reconstruction activities would have a higher demand on mine action services.

Box 3. Analysis versus responsiveness

Mine action planners and managers should strive for efficiency, but must first and foremost be concerned with effectiveness – the impact of their programme in the real world. But impact is a complex, multi-dimensional concept, so how can we get a better understanding of the likely impacts of decisions?

Two broad strategies can be employed. The first is **analytic** (more data and more processing), and the second is **responsive** (adopting the priorities identified by government officials, community representatives and other development actors). Both approaches have merit and should be seen as complements rather than alternatives.

The advantages of responsive approaches are that they tap into the expertise of others and, where a programme responds directly to local community concerns, this increases a sense of community ownership. Community-level information can be collected by discussions with local, district or provincial officials and by working with local or international community development NGOs that use participatory approaches. If neither of these proves satisfactory, it may be necessary to conduct participatory consultations directly with affected communities (although this is obviously a more expensive method).

The disadvantage of responsive approaches is the risk of bias or partiality. This demands that mine action continue in some measure with analytic approaches.

How to get the missing information?

First, talk to the major development actors present in-country, such as UNDP and the World Bank and relevant government ministries, for instance of agriculture, education, health, reconstruction. Think about getting them together in a workshop or conference to talk about development priorities and how mine action can support them in a systematic fashion. As an integral part of the process, consider how to obtain the views of affected communities — local associations and community groups can act as a proxy, and NGOs active in community development can advise how and where contamination is affecting their projects.

Where a national development strategy is not in place, or where it is obsolete or otherwise seriously deficient, the mine action programme will need to work out its own understanding of how mine action promotes the ultimate aims of development.

Mine-action-related information can be found on a number of websites, notably the UN's Electronic Mine Information Network (**E-MINE**), available at www.mineaction.org. In addition, there are major development information databases available online. Examples are:

DEVELOPMENT GATEWAY, hosted by the Development Gateway Foundation (www.developmentgateway.org), and supported by the World Bank.

ELDIS, hosted by the University of Sussex in the United Kingdom (www.eldis.org), which has a wide range of country profiles and thematic issues.

RELIEF WEB, a site supported by the United Nations Office for the Coordination of Humanitarian Affairs (www.reliefweb.int), with information from the UN and NGOs.

These avenues should obviously be exhausted before any thought is given to the MAC spending its own time and money gathering information directly.

How much to spend?

You may need to hire specialist assistance or conduct your own surveys to obtain the missing information. Of course, data collection consumes resources that might otherwise be used for clearance. There will be a point at which the cost of collecting extra data on the alternative tasks outweighs the benefit likely available through better prioritisation and decision-making.

2

An introduction to strategic mine action planning

What is strategic planning?

Strategic planning refers to a process whereby managers and planners take a number of multiple, inter-related decisions at the same time — and in an “internally consistent” fashion — about the future of a humanitarian or development programme. In mine action, this means identifying the most effective and efficient way to both minimise the impact on the civilian population and to promote broader development.

A key feature of a strategy is that it has several broad goals, each with subsidiary objectives. Planners need to identify alternative approaches for attaining each of the objectives, and analyse how the possible approaches “fit together” into an overall package. For example, the ideal approach to clearance might require so many resources that other mine action components would have to be curtailed. The overall programme might well be improved by adopting a less expensive approach for clearance so that more resources are available for other components.

Devising a strategy is sometimes referred to as “the art of the commander-in-chief”. There is a good deal of creativity required in devising alternatives approaches to meeting the various goals and objectives, and in working through the interconnections between them. Because of the creative spark required — and in spite of the fact that planning tools can be useful at some stages — a “template” approach will rarely result in an adequate strategic plan.

A fundamental principle of an effective strategic plan is that it seeks to respond in the most effective and efficient way possible to what people actually need — not just to give them what the mine action programme happens to be able to deliver at any given moment. The needs assessment should provide the necessary information — and logical underpinning — for a strategy to be successfully developed. The strategic plan should identify information gaps and suggest the means to fill them. It should also identify the main risks that would jeopardise the achievement of key objectives and should outline the steps that will be taken to manage these risks.

Of course, resources are always insufficient compared to the needs, so an important element in the strategy is allocating resources among the various goals and objectives, to achieve a balanced approach. Resource allocation, discussed in the following chapter, reflects the balance (or relative priorities) among the objectives. Resources can be allocated in a number of ways, for example geographically or thematically among the mine action components.

As the International Mine Action Standards (IMAS) suggest, attaining the objectives of mine action demands a multi-faceted — and multidisciplinary — approach in which mine action works hand in hand with broader relief and developmental work.

Box 4. The IMAS definition of mine action*

According to the International Mine Action Standards (IMAS), mine action refers to “activities which aim to reduce the social, economic and environmental impact of mines and UXO... Mine action is not just about demining; it is also about people and societies, and how they are affected by landmine contamination. The objective of mine action is to reduce the risk from landmines to a level where people can live safely; in which economic, social and health development can occur free from the constraints imposed by landmine contamination, and in which the victims’ needs can be addressed. Mine action comprises five complementary groups of activities:

- a) mine risk education;
- b) humanitarian demining, i.e. mine and UXO survey, mapping, marking and (if necessary) clearance;
- c) victim assistance, including rehabilitation and reintegration;
- d) stockpile destruction; and
- e) advocacy against the use of anti-personnel mines.

Note: A number of other enabling activities are required to support these five components of mine action, including: assessment and planning, the mobilisation and prioritisation of resources, information management, human skills development and management training, quality management and the application of effective, appropriate and safe equipment.”

* IMAS 04.10, Second Edition, 2003, 3.124.

The goals of mine action

There are many possible mine action goals (for example, to reduce deaths and injuries, to facilitate reconstruction, to promote development, to implement the obligations of the Anti-Personnel Mine Ban Convention). We all agree on the need to try to reduce deaths and suffering caused by landmines and UXO. But there are situations in which the best way to reduce deaths and suffering is not to focus only on the mines and UXO that pose an immediate danger of an explosive accident. Indirect impacts of contamination may result in increased poverty and food insecurity because access to good crop land is blocked, or in

the spread of infectious diseases due to the inability to provide public health services in regions isolated by contamination.

Is the goal to reduce deaths and injuries caused directly by explosive accidents or to reduce the deaths and suffering caused, directly and indirectly, by mine and UXO contamination? One view is that mine action tries to eliminate landmine and UXO contamination — to somehow turn the clock back to a time before the mines were laid. Indeed, early programmes that focused on the numbers of mines removed seemed to be designed with such a goal in mind.

However attractive this view might be, it is not correct. Mine and UXO contamination is a Pandora's box type of problem. Once unleashed, it can rarely be solved by trying to eliminate the threat: instead, it is a problem that must be managed. Not all contaminated areas can be cleared, and not everyone affected can be helped. Difficult choices must be made in goals and the strategies employed to pursue them.

Indeed, mine action has increasingly moved away from pursuing a vision of a mine-free country in favour of trying to make an affected country mine and UXO impact-free. This is much more than just pure semantics. It has significant implications for strategic and operational planning and, consequently, for resource mobilisation. It may, for example, require flexible, mobile teams for explosive ordnance disposal and small-scale mine clearance that can quickly be deployed to high-impact areas. But such flexibility comes at a cost — typically, in terms of logistical support.

Box 5. Impact-free or mine-free? Meeting the obligations of the Anti-Personnel Mine Ban Convention

Under Article 5, paragraph 1 of the Anti-Personnel Mine Ban Convention, each State Party *“undertakes to destroy or ensure the destruction of all anti-personnel mines in mined areas under its jurisdiction or control, as soon as possible but not later than ten years after the entry into force of this Convention for that State Party”*. A State Party that is unable to meet this deadline is entitled to ask the other States Parties for an extension period of up to ten years at a time.

This provision has generated considerable discussion in mine action circles, as some argue that it has led to the adoption of unrealistic and inappropriate strategies for mine clearance in certain major programmes. This debate has centred on the word “all” in the provision, which is seemingly unambiguous, requiring nothing less than total clearance.

In fact, it is already accepted that anti-personnel mines will only be cleared from any given territory to a certain depth — for example 13 centimetres, as the IMAS proposes — so mine clearance operations may already leave landmines that have been planted, or which have been displaced by floods or soil movements, at a greater depth. In addition, the article does not seek to affect priority-setting, leaving this up to the State in question to determine.

Moreover, implementation of Article 5 is inevitably linked to the availability of resources, and therefore also to Article 6 of the Convention on international cooperation and assistance. Given that resources are limited, it is both inevitable and appropriate that priorities will be set. Unfortunately, not everyone that needs help can receive it, or receive it promptly. Thus, the most needy should be helped first. This means using socio-economic criteria to determine needs, and therefore priorities.

With this in mind, following the approach used by the UN mine action programme in Kosovo, many programmes seek to reduce or eliminate the impact of mines and UXO on the civilian population. The ultimate solution is clearly to remove all explosive remnants from the territory of an affected nation, but without being constrained by the initial ten-year deadline. Accordingly, a ten-year “impact-free” strategic plan does not preclude subsequent efforts to eliminate all mines and UXO, thereby making a country “mine-free”.

A framework for a strategic mine action plan

Development planners differ as to the precise format and terminology used for a strategic plan, but many mine action strategic plans include the ultimate *vision* being pursued by the mine action programme. A typical vision might be *“a country free from the impact of mines and unexploded ordnance and otherwise in compliance with the Anti-Personnel Mine Ban Convention”*. There may also be an ensuing *mission statement*, such as *“to eliminate the most severe impact of mines and unexploded ordnance on the civilian population within ten years”*.

The plan will then set out a series of broad aims — known as *goals* — and under each goal, will list a number of *objectives* that must be pursued to reach the goal. *Activities* describe how project *inputs* will be used to produce *outputs* that need to be produced if the objectives are to be achieved. Indicators are benchmarks by which it will be possible to determine whether good progress toward the objectives is being achieved.

Box 6 sets out a proposed framework for a strategic mine action plan for what might be considered a typical mine-affected country. Of course, different organisations and institutions favour different formats; this is only a suggestion. But, in practice, the basic principles for strategic planning are broadly similar.

Adopting national mine action legislation

Once the programme goals, objectives and strategic approach have been decided, they should be formalised or made official. The national government needs to pass legislation governing its mine action programme. In the absence of internationally-recognised national authorities (e.g. Kosovo), or where warring factions have yet to fully commit to a peace process, the group of donors supporting UN mine action should officially adopt a set of objectives and a strategy for achieving these.

Legislation should outline the broad public policy objectives, establish the national mine action authority and MAC and outline their structures, authority, and responsibilities. The GICHD has prepared *A Guide to Developing National Mine Action Legislation*, which is available online (www.gichd.ch) or in hard copy, on request.

As the Guide suggests, because initial planning is almost always done with incomplete information and insufficient experience, and because both the mine contamination problem and the country's social and economic structures will evolve — often rapidly — you should try to avoid excessive detail or specificity in terms of how the mine action objectives are framed in the legislation. Make sure that it empowers the national mine action authority to adopt supplemental regulations and policies designed to provide more specific guidance for operational planning and decision-making. With such authority, the national mine action authority can adopt and adjust annual work plans, plus policies and criteria guiding priority-setting, without having to seek new laws.

If the country is a party to the Anti-Personnel Mine Ban Convention, legislation will likely be needed to give legal effect to the country's undertakings under that treaty (e.g. to lay down penal sanctions for the use of anti-personnel mines). The International Committee of the Red Cross (www.icrc.org) has examples of such legislation and has prepared an information kit to assist States in meeting their obligations under the Convention. Even where the country has not signed the Convention, its legislation should still ban the possession and use of landmines by civilians and other unauthorised persons.

Box 6. A framework for a strategic mine action plan

Context

- Political context
- Security
- Economic context
- Social context
- Geography
- Demography
- Development priorities and actors

Hazards

- Nature of contamination
- Extent of contamination
- Unknowns

Needs assessment

- Vulnerability assessment (current impact)
 - affected communities
 - risk-taking behaviour
 - victim profiles and numbers
 - projected changes (e.g. refugee return, reconstruction projects underway)
 - unknowns
- Development constraints (future impact)
 - development priorities — key sectors and areas for mine action linkages
 - unknowns

Description of the mine action programme

- History
- Current status
- Problems with programme and organisations

Vision, strategic goals and objectives for mine action programme

- Vision statement — A country free from the most severe impact of landmines and unexploded ordnance and otherwise in full compliance with the Anti-Personnel Mine Ban Convention
- *Goal 1. Strengthen national mine action programme and key organisations*
 - Objective 1.1 — Pass mine action legislation
 - Objective 1.2 — Mobilise national and donor resources
 - Objective 1.3 — Strengthen senior and middle management in the mine action centre
- *Goal 2. Goal for demining*
 - Objective 2.1
 - Objective 2.2
 - Objective 2.3
- *Goal 3. Goal for mine risk education*
 - Objective 3.1
 - Objective 3.2
 - Objective 3.3

➤ *Goal 4. Goal for stockpile destruction*

- Objective 4.1
- Objective 4.2
- Objective 4.3

....

➤ *Goal X. Research and development*

- Objective X.1 — Integrated demining techniques
- Objective X.2 — Pilot project in community-based risk reduction
- Objective X.3 — Pilot project in using politicians to clear minefields

Actions to achieve goals and objectives

- Mine action activities
- Coordination mechanisms
- Planning and sharing information with other humanitarian and development actors
- Timeframe

Resources

- Available resources
- Implementing organisations
- Additional resources required
- Plan for resource mobilisation

Key assumptions and implications

- Signed peace agreement with rebels
- Implementation of peace agreement with rebels
- Successful negotiation of unified mine action wage structure
- Successful use of mine detection rats

Risk management

- Contingency plans if peace not signed
- Contingency plans if peace agreement does not hold
- Raising the likelihood of success in mine detection using rats

3

The evolution of a mine action programme

The changing context for mine action

Most mine and UXO contamination stems from periods of conflict. In many cases, and increasingly over the past two decades, these have been internal conflicts creating what have been termed “complex emergencies”: situations where the legitimacy of the State is challenged in large swaths of the country and may even have collapsed altogether; where peace can reign for long periods in some parts of the country while conflict persists in some areas and is intermittent in others; where civilians and their livelihoods are often targeted by the warring factions.

Frequently, warring parties will ask the international community to provide assistance in the form of peace-keeping or broader peace-building missions. Where such efforts appear to be successful — or where major countries deem their national interests are at stake — the peacekeeping phase will lead to a major reconstruction effort, financed by donor countries and multilateral financial institutions (World Bank and regional development banks).

Although in many cases “traditional” development work (e.g. *new* investments in infrastructure, social services, private sector development) would never stop entirely, the government and the major donors may focus initially on peace-keeping/building and subsequently on the reconstruction programme. However, as the restoration of key infrastructure (roads, railways, ports, electrical utilities, water systems, and so on) and basic public services (education, health, policing, etc.) progresses, increasing attention will shift to more traditional development programmes.

Thus we can define up to four main stages in a country’s recovery:

- (i) conflict;
- (ii) immediate post-conflict stabilisation (including peace-keeping/building);
- (iii) reconstruction; and
- (iv) traditional development with assistance from international donors and financial institutions.

However, this depiction of the transition from conflict to development is a stylised one. In some cases, a dormant conflict will resume, halting the transition to the reconstruction and development phases. Unfortunate countries will suffer from simmering conflict for prolonged periods, perhaps becoming a forgotten emergency, receiving little attention from the international community. Thus, the transition from conflict to development is uncertain and prone to reversals, and may proceed at different rates in different parts of the country. Moreover, the start and end points of the different phases will not be clear cut; rather, the phases will overlap.

What is important is not so much the details of an individual country's transition, but rather the dynamics of such transitions in general, and the implications of such dynamics for those planning and managing mine action programmes. In particular:

- the country's social, political, and economic environment will evolve over time; in some aspects, quite rapidly;
- the size and relative importance of the different types of international assistance—humanitarian, peace-building/immediate post-conflict, reconstruction, and development—will evolve over time and, because of this...
- the international “actors” present in the country, their primary objectives, and their relative powers to influence local affairs, will change over time.

The implications for mine action

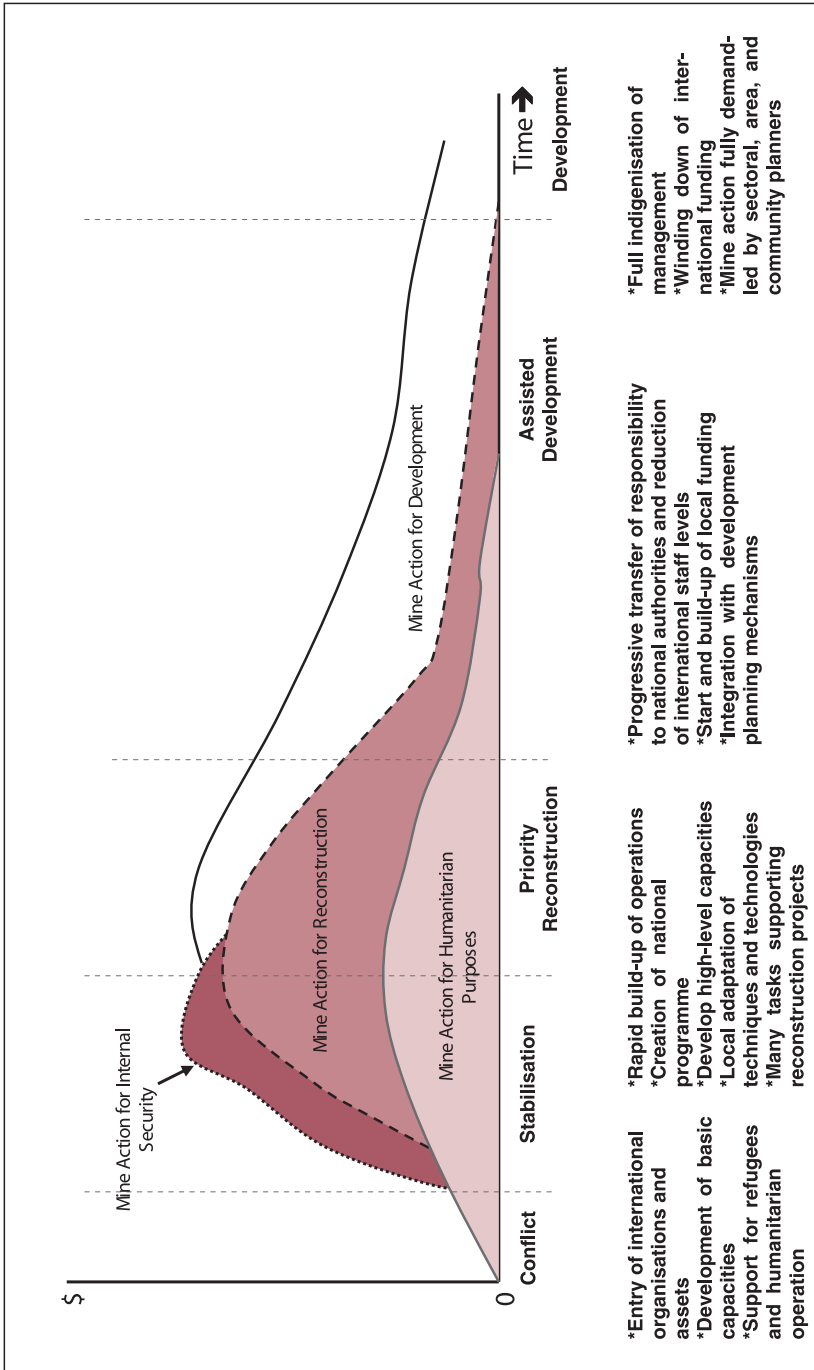
The principal outputs of mine action (safe land and facilities; people aware of the dangers posed by landmines and UXO; amputees fitted with prosthetics; etc.) are not ends in themselves; each mine action output is a means to an end. Therefore, mine action is (or should be) at the service of the mine-afflicted country and its citizens and, at any point in time, should be focusing most of its resources in support of the most strategically important efforts underway in the country at that time.

Thus, mine action priorities — and the programme's allocation of resources — should also change as the emphasis shifts from humanitarian assistance through stabilisation through reconstruction and finally to development. Again, these typically will be relative shifts over time rather than abrupt changes, so there may be periods when the mine action programme is working in support of, say, three types of programmes: humanitarian, reconstruction and development.

When broken down in this manner, the pattern of mine action expenditures over time might appear as depicted in Figure 2.

Two additional types of changes will be occurring that are also vital to the performance of a country's mine action programme. First, the programme's capacities will be growing with new assets, training, the introduction of better organisational management systems and experience. Some of the likely developments over time for a mine action programme are listed at the bottom of Figure 2.

Figure 2. The stages of a stylised mine action programme



Second, mine action planners and managers will acquire additional data over time, allowing them (in theory at least) to make more informed decisions and better projections concerning likely developments in the future which will affect their programme. Some of the important categories of data to a mine action programme are those concerning:

- hazards (locations, numbers and types of devices, what community assets the hazards are blocking, etc.);
- livelihoods — how individuals, households, and communities survive and prosper (this requires socio-economic data);
- national governance — how governments are formed and replaced and the machinery of government functions;
- international aid and government financing — the key actors and their principal objectives at national, regional, and community levels.

In general terms, planners should expect three broad trends:

1. Increasing levels of national ownership over the mine action programme (e.g. the national government may assume responsibility for the MAC). This implies an increase in the power of the national government relative to the group of donors in setting priorities for the country's progress.
2. Increasing input from different sectoral agencies (government departments; para-statal; etc.) as planners in the various sectors (agriculture, transportation, utilities, environment, etc.) begin to grapple with the problems created by contamination for their sector development plans.
3. Increasing input from different levels of government as capacities of provincial and local governments are rebuilt following the conflict and they gradually assume their responsibilities mandated by the constitution and legislation.

Some of the main implications for mine action planners and managers are summarised in Table 1.

Table 1 aims to describe general situations and likely trends, but the specific circumstances of individual countries will lead to variances (sometimes substantial) from this picture. Regardless of the details, however, it should be clear that mine action planners need to be aware that the programme will face some very significant changes as a country makes the transition from conflict to development. The key international organisations operating in the country and influencing its development priorities will change. The principal needs of the country's citizens will change. The role and capability of the government will change. The changes may not be smooth and easy to predict, and reversals may occur, but changes which significantly affect the mine action programme will undoubtedly occur.

Put simply, mine action planners need to be aware that, when developing their strategic plans, their principal challenges and partners will be different in five years' time, and perhaps far different to what they are today. In developing their plans, mine action officials need to try to anticipate what changes are likely and determine what steps the programme needs to take today so that it is capable of meeting tomorrow's challenges. Similarly, as mine action is called upon to support different types of programmes, it must make different resource allocations and adopt different priorities.

Table 1. Key challenges for mine action programming in a changing context

Need/Type of programming	Key actors	Likely degree of coordination	Key challenge for mine action planning
Humanitarian	• UN agencies • International NGOs • Red Cross	Low	Dealing with many agencies which may disagree of priorities and strategy in a chaotic, rapidly changing, and poorly understood environment.
Security	Foreign militaries	High	1. Avoid military priorities dominating humanitarian and development needs. 2. Security of staff if internal security not established. 3. Getting cooperation and data from militaries.
Reconstruction	• World Bank and perhaps other agency in MTF • UNDP • Major donors with showcase projects	Fairly high	1. Large scale demining tasks under tight deadlines in support of major infrastructure projects. 2. Ensuring funds for demining are included in reconstruction projects.
Development	• Government • World Bank and perhaps other multi-lateral agency • Lead donors for sectors	• Fairly high if government is both committed to citizen welfare and capable • Low if government is capable but not committed • Medium otherwise	1. Coordinating with many local and provincial governments on task priorities. 2. With committed government: coordinating with ministries of finance and planning to ensure national government gives adequate priority to mine action. 3. With uncommitted government: coordination with donors when overall donor coordination mechanism is lacking.

4

Resource allocation in mine action

Allocation is the act of dividing or apportioning resources for specific purposes. Because total resources are limited, allocating some to one purpose means there will be less for other purposes, making resource allocation a critical and contentious decision for managers.

It is vital that resource allocation decisions are made in such a manner that resources are well aligned with the “right” priorities. But first, how are the “right” priorities determined, and by whom? Obviously, a determination of priorities depends in large part on the “facts on the ground” — in this case, on technical data concerning landmine and UXO hazards coupled with socio-economic data of various types.

Obtaining enough data and enough types of data to formulate a complete and accurate picture of the contamination problem can be a formidable problem in its own right. But different decision-makers often will also arrive at different priorities even when they are considering the same data. This is because these judgements are based in part on their personal values (morals and a sense of what is right) and in part on their own interests or those of their employer.

Because of these complications, resource allocation decisions are not merely technical matters for which the “optimal” allocations can be calculated by engineers and economists; rather, they also have a political element. For, at its heart, politics is about competition among different groups with different interests. This is particularly true when there are different people from multiple organisations with authority to make resource allocation decisions — a common situation in mine action.

What are the problems?

There are three features of the mine action world which make resource allocation a particularly difficult problem for many mine action programmes:

1. The problems created by landmine and UXO contamination are inherently complex.

2. Officials in many different organisations—donors, operators, national ministries, sub-national governments, as well as the national authority and MAC—have authority to make resource allocation decisions of some type.
3. There are many different types of resource allocation decisions that need to be made.

This chapter will discuss each of these issues in turn.

Complexity of contamination problems

First, mine action problems are complex because they entail both technical questions (numbers and types of devices; soil types; vegetation cover; pattern of the contamination; etc.) and socio-economic issues (how people earn their livelihoods; distribution of populations and economic activities; development plans; etc.). Neither the technical nor the socio-economic data can, on its own, provide a proper assessment of the impacts of landmine and UXO hazards on people in the affected regions; rather, the two types of data must be analysed together.

Second, the people with the most expertise on the technical issues and those with socio-economic expertise typically have little experience in working jointly on problems. They speak different professional languages and they approach problems differently.

Third, mine action programmes often start in a rush with little of the technical or socio-economic data required to understand impacts and establish appropriate priorities. Programmes must acquire this information as they go along, and some of the initial resource allocation decisions — made with incomplete data and understanding of the problems — may appear as mistakes with hindsight (i.e. with more data and better understanding).

Fourth, when there is widespread contamination, an immense amount of technical and socio-economic data must be acquired to develop a reasonably complete and accurate picture of the negative impacts and what benefits might accrue with different mine action activities.

Fifth, landmine and UXO hazards affect many diverse groups of people in many different ways. It is a sufficiently complex matter to obtain the views of these different groups concerning mine action priorities let alone to decide which groups' problems should be addressed first.

Sixth, while contamination poses problems for national and regional development many of the adverse impacts are localised, affecting particular groups in specific communities. It is difficult to stay in touch with many groups in many communities to understand how they are adapting to the hazards and what benefits have actually accrued from mine action.

The fact that mine action problems are complex affects the resource allocation problem in a number of ways; we will focus on three in particular:

1. Significant resources must be allocated to obtain technical and socio-economic data and to analyse this data to develop a proper understanding of the needs of people affected by contamination — in short, *information is costly*.

2. It is common, particularly in the early years of a programme, that the various officials with authority over resource allocation decisions have different technical and socio-economic data at their disposal and are listening to different groups of people who are directly affected by contamination. Because of this, most of the decision-makers have only *partial pictures* of the overall contamination problem; moreover, they have *different partial pictures*.
3. The localised and specific nature of many adverse impacts makes some form of decentralised decision-making an attractive option (at least when contamination is extensive). This is because local officials or local operators with experience in a contaminated region are “closer to the ground” and in a better position to understand the views of the different groups affected by various hazards. (National decision-makers still should determine where, in broad terms, to allocate mine action resources, such as international NGOs or the local military, while local decision-makers then must task more specifically the resources made available to them.)

Decentralisation also means it is unnecessary to impose a “one-size-fits-all” approach from the capital, so different regions can, say, use different mixes of assets that are appropriate to the type of contamination problems most common in their region. Sub-national officials are also in a better position to link mine action with other actions they are taking concerning matters that fall into their jurisdiction, such as land administration and the delivery of local services. But effective decentralisation also requires standards imposed from the capital in order to ensure that citizens in the various regions receive more-or-less equal levels of mine action services relative to their needs.

In brief, because information is costly most mine action programmes face major problems concerning both (i) the availability and accuracy of data and (ii) how to make sense of that data to understand how hazards are affecting people. This is particularly true during the first years of the programme.

In the face of uncertainties arising from inadequate data and understanding, key actors such as the major donors and the national government are loath to delegate authority to any organisations or subordinates that they do not already trust (because of long experience and/or the inability to detect and punish malfeasance or incompetence). This leaves authority for resource allocation decisions in the hands of officials who may not be the best placed to make those decisions, particularly as more data and better understanding are acquired.

Many decisions and multiple decision-makers

The following table provides listing of the types of resource allocation decisions and the types of officials that may have authority over at least some of the resource allocation decisions.

The fact that there are many resource allocation decisions to be made and there are multiple decision-makers raises two fundamental questions:

1. How do we **structure** the various decisions so the appropriate decision-makers have authority over each of the decisions?

2. How do we **coordinate** decisions when there are multiple decision-makers so there is no wasteful duplication or undesirable gaps in coverage?

Table 2. Many decisions and multiple decision-makers

Decisions – allocate resources among:	List of possible decision-makers
• Types of mine actions (demining, MRE, etc.) • Sub-national political or administrative entities • Types of assets • Organisations conducting operations (NGOs, firms, military, etc.) • Modes or channels of contracting (competitive versus sole-source contracting) • Economic sectors • Target beneficiaries (refugees, internally displaced people, nomads, rural versus urban, etc.) • Types of broader assistance programmes which require support from mine action (humanitarian, reconstruction, development) • Time periods (e.g. with multi-year funding, how much is allocated for year 1, year 2, etc.) • Current expenditures versus investments to build capacities (investments in assets – machines, dogs, etc. – or knowledge such as R&D, capacity development, socio-economic surveys, etc.)	• Donors • Cabinet or the national legislature • National authority • National Mine Action Centre • Regional MACs • Provincial governors • Mine action operators (NGOs, etc.) • UN agencies

Working toward solutions

Structuring decisions

When faced with many inter-related decisions, it is necessary to structure them in some logical fashion. For national programmes, a common approach is to employ a hierarchical structure. This specifies that certain decisions are made in the national capital while others are decentralised to, say, the provincial level. In turn, some of the decentralised decisions are made by provincial authorities, while others are decentralised further to, say, a district level. The process may continue to lower levels (municipal, mine action operator, etc.).

In this process, certain responsibilities are decentralised from higher levels to lower levels. One of the key allocation decisions made at higher level is the amount of resources to be allocated to the lower level so it can fulfil its responsibilities. For example, the national MAC would need to allocate certain resources to provincial MAC offices so they can complete their work programmes. The national MAC also needs to retain adequate resources for national projects (e.g. national MRE campaigns, priority reconstruction projects, R & D, etc.)

Try also to align the hierarchical structure of allocation decisions with the constitutional and legislative framework for governance of a country that dictates the authorities and responsibilities of different levels of government. Many countries emerging from internal conflicts will go through a period of

constitutional reform following the peace agreement, so the original mine action plans may have been based on the old constitution.

Therefore, it is important that a national authority and MAC devise a logical, transparent and appropriate structure for allocation decisions and present this explicitly to donors, UN agencies, and other organisations that are now making such decisions. Normally it will be impossible to impose the desired structure immediately; for example, some donors may already have made funding commitments covering the next year or two. But it is important to get the desired structure “on the table” for discussion — and possible amendment based on comments from key donors, etc. — and to agree how to implement that structure over time.

Making the structure of decisions explicit also highlights a vital question: what criteria are used to make the decisions at the different levels? For example, should the national authorities present a proposed structure of allocation decisions to donors, independent operations, UN agencies, and other organisations that now have authority over certain allocation decisions, these organisations will want to know how the amounts to be allocated to each of the provinces are determined — what are the criteria (and indicators)? It is necessary to make these explicit to get donors and others to buy into the proposal.

Table 3. Criteria guiding allocation decisions

Decision: allocations among	Criteria	Indicators used
Provinces (made by national authorities)	Population at risk	Total population in high and medium impacted communities as per Impact Survey
	Extent of contamination	Number of hazards in database
Districts (made by provincial authorities)	Population at risk	Total population in high and medium impacted communities
	Degree of risk	Number of accidents in past two years
	Development potential	Requests from community development NGOs

In concluding, it is worthwhile emphasising the difference between the structured resource allocation system as outlined above and the typical “prioritisation systems” used by many programmes today. These systems generally specify the criteria used to identify priority tasks for demining. Criteria typically include the danger posed by the hazard (e.g. whether there have been accidents and how close the hazard is to schools, village centres, etc.) plus something about the expected use of the land after clearance (e.g. for resettlement, development projects, or agriculture). The criteria may also specify specific types of beneficiaries (e.g. refugees) and how quickly the cleared land will be put to productive use.

Such criteria are, of course, quite sensible. However, they often are geared solely to demining rather than to “integrated mine action” which attempts to deliver the appropriate response (permanent marking, MRE, as well as clearance) to the problem created by a hazard. Also, this type of prioritisation system may be adequate for determining why a particular hazard has been designated a priority, but does not answer questions about why, for example, mine action expenditures in the Northern province are twice those for the Central province.

Finally, such a prioritisation system *on its own* is inadequate when contamination is widespread and some sort of decentralised decision-making is warranted. Either the criteria are specified so tightly that local officials or NGO programme managers have no discretion or (more commonly) the criteria are so general that far more tasks are identified as priorities than can possibly be undertaken. Tightly specified criteria means foregoing the important benefit of judgements based on intimate knowledge of the local needs, while loosely specified criteria open the door to abuse.

Criteria should, of course, be specified for determining which tasks warrant the allocation of clearance resources, thus the “prioritisation systems” are part of the broader structure of resource allocation. They should be clearly and explicitly linked into the overall resource allocation structure.

Coordination of multiple decision-makers

When there are multiple decision-makers making inter-related decisions, coordination is essential to avoid wasteful duplication and dangerous gaps in coverage. For when different decision-makers have different partial pictures of the problem, how can they agree on the solution (in this case, a national mine action strategy and implementation plan)?

For most mine action programmes, donor coordination is the critical issue because international donors provide a large proportion of the resources. Donor coordination can mean many different things however, such as (listed from least to most ambitious) a commitment to:

- share information about progress on current projects and plans for future projects;
- adopt a single assessment of needs on which to base plans;
- conduct joint assessment missions to develop the common assessment of needs;
- adopt a common strategy based on the common assessment of needs;
- adopt a common plan to implement the common strategy; and
- pool resources to support the common implementation plan.

Working out the desired hierarchical structure of allocation decisions and negotiating agreement among the organisations making allocations of one type or another represents a major step forward in itself, as this helps frame the pictures that the different donors form based on their partial information. Clarifying the criteria and indicators that should be used to guide the various decisions then informs the multiple decision-makers which parts of the picture (i.e. which data) are relevant for which type of decision. As a result, the different decision-makers are likely to develop more similar

views on the nature of the contamination problem — in other words, a common assessment of needs.

Once the key actors have the same picture of the problem obtaining agreement on a solution — a common strategy and implementation plan — is far easier to achieve. When donors and other key actors are “singing from the same song sheet”, greater harmony is possible. The common strategy and implementation plan then provides a basis for dividing the overall mine action programme into manageable components, and the government and donors can work out who will fund which component.

But coordinating multiple decision-makers will remain a tricky problem so long as the major donors continue to provide direct funding to particular organisations, types of mine action programmes and so on because each donor has its own policies, procedures, and priorities. For example, some donors favour projects which provide opportunities to “show the flag” and there is a real danger that this will ignite competition among donors which prevents them supporting a common strategy in an effective manner.

Donors may also favour activities that are most likely to garner support among their own citizens. This may result in “oversubscription” to some components of the programme (say, MRE for children) while other vital components (e.g. core costs for the MAC) remain under-funded.

Finally, the integrity of a national strategy is always at jeopardy when the key donors are directly funding the distinct components of the plan for implementing that strategy. For example, it could well happen that four donors actually deliver on their agreements to fund specific components of the implementation plan, but for some reason the funds promised by a fifth donor are not forthcoming or are seriously delayed. The integrity of the strategy could be maintained by reallocating resources to cover the unfunded component — this would delay the rate of implementation but all the essential components will still be implemented. But it may be impossible to reallocate resources from direct funding agreements made by donors to specific components, at least before significant damage is done to the implementation plan and, ultimately, to people in mine-affected regions.

Working toward the Ideal

The ideal solution is when all the funding to a national mine action programme supports a single policy, strategy and implementation programme with the legitimate authorities taking the lead in devising the policy and strategy and in managing the programme. Further, to avoid harmful donor competition over the high profile components and the possibility that the implementation programme will come unravelling should one donor fail to deliver the promised funds in a timely manner, major donors should adopt common approaches, such as pooling their funds to support the entire programme rather than specific components. Over time, there should be progress to greater reliance on government procedures for making expenditures and bringing these to account.

Agreement between government and major donors on a clear and transparent structure for allocating resources provides a platform for working toward this ideal. But further progress is based on growing trust. Trust between donors and a recipient government stems ultimately from a system of accountability which verifies that (i) resources are being used for the agreed purposes and (ii) good results are being achieved (the desired benefits are accruing to the intended beneficiaries).

The first item requires an accounting which shows that allocations are based on needs so resources flow to the right regions and communities to perform the “right” tasks; tasks which rightly are a priority given the agreed criteria and indicators. The second item requires that the accountability system covers not simply the use of resources but also the results achieved with those resources. It needs to go beyond a simple accounting of how many devices were cleared from what area of land or how many people received MRE training to provide a picture of what was done by which people with the areas cleared or training received. This requires what is often termed in the mine action field as a land use survey, done in a systematic fashion.

5

Priority setting and operational tasking

Guiding principles

The core of a priority-setting system is the method or approach used to assess the alternative tasks, then ranking or categorising these in order of priority. A good system for deciding how to commit mine survey and clearance assets will have at least the following two characteristics:

- **Effectiveness** — The system for setting priorities should help managers choose those alternatives most likely to promote the objectives of the programme or project and, more fundamentally, to promote development in the country.
- **Consistency** — It would also make it more likely that different managers will make the same decision when facing the same alternatives, thus fostering fair and equal treatment for all citizens and communities affected by mine and UXO contamination.

In addition, the following features are desirable:

- **Responsiveness** — Managers obtain and consider the desires expressed by affected citizens and communities (self determination), and those of other stakeholders (e.g. the national government and representatives from sectoral ministries, state or provincial governments, district/local governments, local and international NGOs operating in contaminated areas and donors).
- **Transparency** — The criteria used to assess alternatives are known to and understood by the stakeholders and there is regular reporting on the decisions taken, thus demonstrating there is no hidden agenda influencing decisions.
- **Comprehensiveness** — Ideally, all mine and UXO contamination tasks should be considered when setting priorities.
- **Cost-effectiveness** — The benefits obtained should outweigh the costs involved in collecting and analysing the data required for prioritisation.

Unfortunately, trade-offs are often required among these desirable characteristics. For example, we might be able to improve the effectiveness of

our decisions by using very sophisticated techniques of analysis, but this requires more and better quality data (hence higher costs) and may also result in a system that stakeholders do not understand, thereby reducing transparency. As a result, there is no such thing as an ideal system for prioritisation. Different mine action programmes and, sometimes, individual implementing organisations need to develop prioritisation systems that are right for them in a particular country at a particular time.

Determining the criteria

In practical terms, a mine action task under consideration should be valued by its potential:

- to reduce needless death and suffering and, more generally, enhance protective security;
- to promote economic growth and economic equity (including equity for future generations);
- to promote social development and social equity,
- to enhance the country's capacity to address its contamination problem, thus contributing to political development, and
- to address the contamination in a transparent manner.

Thus, prioritisation really comes into its own for mine clearance at the level of "operational" decision-making, or deciding where to commit the operational survey and demining units. In mine clearance, this typically means which hazards are selected for technical survey and/or clearance this year and which are left for some future time. Because of the nature of mine action and the progressive collection of data through a sequence of surveys, such operational decisions are often made in two stages, as follows:

- First, decisions are made which create a long list of hazards or contaminated communities which, based on the available data (usually, general survey data), seem to be priorities.
- Second, usually following a second survey, often of a technical nature, decisions are made to clear specific hazards within a specified time.

In rough terms, the first stage dictates the assignment of technical survey teams while the second leads to the assignment of mine clearance teams. (For national programmes in which the implementing partners or, sometimes, funding channels have a significant degree of independence, such as in Bosnia and Herzegovina, there may be a third stage in which the clearance organisation decides which of the technically surveyed tasks on the priority list it will demine.)

The decision-making process

Remember, prioritisation does not imply that all possible alternatives are assessed, or that they are assessed at the same time or by the same person or group. Rather, it implies that a number of alternatives are assessed before all the survey or clearance assets are committed. For example, different provincial programmes might work over a period of months to assess possible tasks for

the coming year (as is done in Laos) as a prelude to an annual work plan that documents the decisions taken to clear specific hazards.

Qualitative versus quantitative approaches

Broadly, methods can be quantitative or qualitative. Quantitative approaches compute a numeric score for the alternatives, usually by assessing each alternative against all the indicators employed and calculating a total score. Pure qualitative methods do not compute a numeric score. As such, many are not objective in the sense that different people will almost certainly all agree with the conclusions. It may be unclear what factors led the decision-maker to attach a high priority to a specific task, and whether all the alternatives were assessed against the same standards or criteria. In such cases, the decision-making process lacks transparency, which could cause friction with donors or other stakeholders if there is any suspicion that tasks are being selected to serve private or partisan political interests. Therefore, use of qualitative approaches puts a burden on transparency.

Most “quantitative” approaches, however, have, at some level, qualitative aspects and subjective value judgements concerning the weight given to various criteria and indicators must always be made, given the need to combine dissimilar measures (e.g. lives saved and economic values) into a single scale. For example, the Impact Score developed through a Landmine Impact Survey computes a numeric score based on a variety of criteria, but most of these criteria are themselves measured in a qualitative manner (e.g. the criterion “*access to some rain-fed crop land was blocked*” is scored as one or zero depending on whether the statement is true or false for a specific community, and the score does not vary according to how much crop land is affected). Based then on the numeric scores, communities are put into broad categories — typically, low, medium, or high contamination impact.

Most mine action programmes currently use qualitative methods for establishing priorities, and none as yet uses mathematically sophisticated quantitative methods (although a number of pilot projects have already employed a basic quantitative approach). There is nothing inherently wrong with using qualitative approaches and, indeed, it normally is an advantage to include some types of qualitative data (e.g. community opinion) when deciding on mine action priorities. It is better to be approximately correct than exactly wrong.

Qualitative approaches

Screening tasks

Using criteria as a screen typically is done in a qualitative manner: for example, screening out tasks that are not located within communities or permanent agricultural fields. This approach is very common as the first stage in the two-stage priority-setting processes used in many mine action programmes. For example, the system in Bosnia and Herzegovina, which has a “hazards” and not a “community” focus, screens out any minefields that are not in “locations in regular civilian use or needed for return of refugees and/or

internally displaced persons or needed for reconstruction and development projects”.

Whole task ranking

This is a simple method that can be used when there are a reasonably limited number of alternatives available for consideration — up to 20 or so. As such, it could be used when final task selections are being made (i.e. the second in a two-stage process) for:

- new programmes initiating clearance programmes, before large numbers of minefields have been technically surveyed;
- quarterly or semi-annual work planning at a sub-regional or district level;
- programmes with a community focus, to do priority-setting within communities that have multiple hazards.

It appears this method has yet to be used within the mine action community, but it holds promise both as a systematic means of setting priorities among a limited number of choices and, more generally, as a simple test for any programme to identify (1) the criteria and indicators decision-makers are taking into account and (2) consistency (i.e. are all decision-makers taking the same things into account in the same way?).

Variations of the whole task ranking approach have often been used in “participatory development” approaches (e.g. getting communities to rank the value of community improvement projects), and are very widely used in disparate fields such as job evaluation. There is, however, an understandable reticence to change radically existing approaches to prioritisation.

The steps are simple. There needs to be a summary description of each task, ideally using the same format for ease of comparison, plus a sheet on which the tasks can be listed in rank order. The basic steps then are as follows:

1. Select the highest priority task, and write the task number at the top of the ranking sheet;
2. Select the lowest priority task and write the task number at the bottom of the ranking sheet;
3. Select the second highest priority task, and write its number below the top priority;
4. Select the second lowest priority task, and write its number above the lowest priority; and
5. Continue until all the tasks are ranked.

Commonly, with any list of alternatives, a few stand out at both ends of the spectrum. Whole task ranking is a means of quickly identifying these to allow attention to focus on the more difficult choices. The technique can be used by a small committee based on discussion and consensus. However, this will give different results in different countries.

Some societies — and some organisations — are strongly hierarchal, and subordinates will generally defer to the most senior manager in open discussions. In such cases, there may appear to be consensus when, in fact, the situation is simply not conducive for obtaining a range of opinions. Other

countries and organisations have higher tolerances for open disagreements among individuals, and group discussions are likely to be more illuminating. Also, people in any society or organisation may have hidden agendas and may use committee meetings to promote certain priorities for reasons other than they voice in the meeting.

Whole task ranking can be used with or without explicit indicators. If common indicators have been defined, these should be used in the summary descriptions for each alternative. These indicators could be qualitative (e.g. is access to any crop land blocked?) or quantitative (e.g. how many hectares of crop land are blocked?). However, the alternatives are not scored or ranked against the individual indicators — rather, the “whole tasks” are ranked against one another. Where indicators have not yet been defined, a whole task ranking session provides an excellent opportunity to begin this task. After the priority-setting committee has ranked a set of alternatives, a facilitator can lead a discussion to systematically review the tasks and the reasons for the rankings, using questions such as:

- What are the characteristics of the highly-ranked tasks that make them top priorities?
- Why are the bottom-ranked tasks at the bottom?
- For middle-ranked tasks, how is (say) number 10 different from number 11?

This will identify those criteria decision-makers are actually taking into account. The programme can then list these and attempt to identify relevant indicators for each.

Whole task ranking also provides a simple means of testing for consistency among decision-makers and for identifying the range of factors different decision-makers take into account in setting priorities. This can be done by having the members of the priority-setting committee individually rank the same set of alternatives (say ten alternatives) and then checking to see if these individual rankings are similar. If the lists are similar there is good consistency, almost certainly based on a deeper consensus about the appropriate criteria and their relative importance at that point in time.

More likely, if this is the first time the programme has conducted this exercise, there will be certain types of tasks on which there is a consensus in ranking, but clear differences over other types of tasks. A group discussion, or having an outside facilitator interview the committee members, will help identify sources of disagreement for further analysis and discussion. For example, a programme might discover that some members of its priority-setting committee systematically place greater weight on poverty issues than do other members. This finding then can be discussed by senior programme managers to see if more detailed guidelines for priority-setting should be issued.

Participatory and other “bottom-up” approaches

Bottom-up approaches represent attempts to have affected communities or districts identify their own priorities. Typically, a community will submit a simple list of its priorities, perhaps with explanations but rarely with numeric

scores that would allow outsider observers to better understand what factors the community has taken into account.

Bottom-up approaches are very responsive when decision-makers actually take the views of the affected populations into account, which is far from universal. However, one must always question, responsive to what? For example, communities may be dominated by small elites who will identify priorities that benefit their households or political factions. In some cultures, women may be excluded from public meetings, so their preferences will not be reflected in the priorities put forward by the community. Local officials may not represent the interests of minority groups, particularly in countries recently traumatised by conflict.

In brief, where local political processes could under-represent or systematically exclude the interests of some community members (remember, however, that no political process or form of representation is perfect — there are also dangers in sidelining official or traditional community leaders), bottom-up approaches should be:

- facilitated by non-community members (ideally, trained in participatory appraisal and planning processes), or
- guided by the mine action programme which, for example, would provide a list of the criteria each community must consider, or
- subject to prior approval from the national headquarters, which is less likely to be subject to pressure from local interests, or
- audited by the mine action programme, to ensure the tasks selected reflect the preferences of the community as a whole rather than just the elite, or
- assessed for quality using some combination of the above four approaches.

For example, the national headquarters of UXO LAO specifies the criteria applicable to various types of UXO action, which provincial steering committees use to assess priorities identified by the districts, which have in turn obtained “bottom-up” priorities from villages, local ministry offices, etc. Technical advisors facilitate the districts in this task, and must “sign off” on the technical feasibility of all tasks on the final priority list for the province. Finally, national headquarters must approve the provincial priority lists.

Different qualitative methods can often be used in conjunction. For example, village committees could be asked to rank the different hazards present using the whole task-ranking approach to determine community priorities.

General advantages and disadvantages of qualitative methods

Qualitative approaches are, in general, simple to administer and flexible. As such, they are appropriate when important issues cannot be quantified because they are inherently complex or intangible (e.g. community opinion) or the necessary data is not available (e.g. accurate measures of contaminated land). They are particularly useful for the first stage in a two-stage priority-setting process, when an important task is to exclude alternative mine actions to obtain a manageable long list of priorities. However, care must be taken to

structure qualitative approaches to enhance consistency — particularly for final task selection.

Also, in all cases when using qualitative approaches, efforts must be made to promote transparency so stakeholders can assess whether the decisions were based solely on the official criteria. In some cases, this potential problem can be addressed by having senior officials review and approve the priority lists, but this should be accompanied by wide dissemination of the long list of priorities and the final task selection list, while at the same time opening channels for people or communities to voice any concerns.

Box 7. Unintended and unanticipated consequences

When considering whether to perform a task, it should be valued by any consequences we can reasonably anticipate irrespective of whether or not those results are covered by or incorporated within the mine action programme objectives. For example, most if not all mine action programmes include an economic objective, which typically is formulated to emphasise the growth of economic production (e.g. increase agricultural production).

Assume we must choose between the following two mine clearance tasks:

- Task 1 — Clear two hectares of good rice land in village x;
- Task 2 — Clear the feeder road leading to the same village.

Both tasks will increase agricultural production in the village; the first by bringing an additional two hectares of crop land into production; the second by allowing inputs (fertiliser, better seeds) to be delivered more cheaply, which will increase production on all the crop land currently being farmed. It is possible the two tasks score equally against the programme's economic objective. However, it is unlikely the two tasks will truly have the same economic impact. Clearing the main road will also allow consumer goods to be transported to the village, thus benefiting the bulk of the population. It might also reduce the cost of medical supplies to the health clinic, thus lowering public health care costs.

The two tasks will also have different impacts on economic equity. The road will benefit all people in the community, while most of the benefits from clearing the rice land will go to a single household. If this happens to be an extremely poor household in an otherwise prosperous village, clearing the rice land might score higher on equity grounds, but clearing the road would normally provide a more equitable distribution of benefits. Therefore, there are important economic benefits in terms of consumption and equity that are not incorporated within the programme's objectives. We will term such results "unintended consequences", which could be positive or negative.

In this case, the two tasks score equally against the programme's economic objective but can be anticipated to have quite different economic impacts. Because these unintended consequences can reasonably be foreseen, it makes no sense to ignore them — indeed, ignoring such evidence seems irresponsible. Similarly, the potential negative consequences of a task should be considered, regardless of the fact that the programme objectives make no mention of such a consequence. Mine action evaluations will certainly

criticise the programme's management if unintended consequences that can reasonably be anticipated are ignored.

Of course, our knowledge of national and community socio-economic structures is always imperfect, and not all consequences of mine action can be anticipated. However, as we gain experience, we invariably learn that certain important consequences, which we had not originally anticipated, occur with some regularity.

For example, some programmes found that peasant land would be commandeered by political or military elites after it had been cleared of landmines. Mine action management cannot be faulted for the initial instances of such an unanticipated result. They should be faulted if they did not quickly learn about such an important consequence stemming from mine clearance and did not take reasonable steps to avoid such a consequence once they learned about it.

6

Measuring success

In the long-term, mine action will be judged by how much it contributes to a country's development. Development is about understanding what people need and value, and supporting their efforts to obtain that, not about what we happen to be able to give them at any particular moment.

Accordingly, there is increasing recognition in the mine action community that merely reporting on number of mines and items of UXO or square metres cleared is not an adequate assessment of work performed, as it fails to capture the impact of clearance operations on affected communities. Development agencies have compiled guides for selecting and using indicators to measure the success of development programmes and projects. One of the best is the series from USAID, *Performance Monitoring and Evaluation TIPS*, from which this section has been adapted (see www.dec.org/usaidtheval/#004). It recommends that the performance indicators selected should have the seven following characteristics:

1. **Direct** — A performance indicator should match as closely as possible the result it is intended to measure. It should not be pegged at a higher or lower level than the result being measured. For example, contraceptive prevalence rate is a direct measure of the result of increased use of family planning methods. But number of service providers trained would not be a direct measure of the result sought — improved service delivery. Just because people are trained does not necessarily mean they will deliver services better.

If using a direct measure is not possible, one or more proxy indicators might be appropriate. Proxies are indirect measures that are linked to the result by one or more assumptions. For example, in rural areas of Africa it is often very difficult to measure income levels directly. Measures such as percentage of village households with tin roofs may be a useful, if somewhat rough, proxy. The assumption is that when villagers have higher income they tend to purchase certain goods. If convincing evidence exists that the assumption is sound, then the proxy may be an adequate indicator, albeit second best to a direct measure.

2. **Objective** — There should be no ambiguity about what is being measured. That is, there is general agreement over interpretation of the results. An objective indicator is both unidimensional and operationally precise. Unidimensional means that it measures only one phenomenon at a time. Avoid trying to combine too much in one indicator (e.g. measuring both access and use). Operational precision means no ambiguity over what kind of data would be collected for an indicator. For example, while number of successful export firms is ambiguous, number of export firms experiencing an annual increase in revenues of at least 5 per cent is precise.
3. **Adequate** — Taken as a group, a performance indicator and its companion indicators should adequately measure the result in question. How many indicators should be used to measure any given result? The answer depends on (a) the complexity of the result being measured, (b) the level of resources available for monitoring performance, and (c) the amount of information needed to make reasonably confident decisions. For some results that are straightforward and have tried and true measures, one performance indicator may be enough. For example, if the intended result is increased traditional exports, the indicator dollar value of traditional exports per year is probably sufficient. Where no single indicator is sufficient, or where there are benefits to be gained by “triangulation”, then two or more indicators may be needed. However, avoid using too many indicators. Try to strike a balance between resources available for measuring performance and the amount of information managers need to make reasonably well-informed decisions.
4. **Quantitative, where possible** — Quantitative indicators are numerical. Qualitative indicators are descriptive observations (an expert opinion of institutional strength, or a description of behaviour). While quantitative indicators are not necessarily more objective, their numerical precision leads to more agreement on interpretation of results data. However, even when effective quantitative indicators are being used, qualitative indicators can supplement with richer information to bring a programme’s results to life.
5. **Disaggregated, where appropriate** — Disaggregating programme results by gender, age, location or some other dimension is often important from a management or reporting point of view. Experience shows that development activities often require different approaches for different groups and affect those groups in different ways. Mine risk education is an obvious example of this. Disaggregated data helps track whether or not specific groups participate in and benefit from activities intended to include them.
6. **Practical** — An indicator is practical if data can be obtained in a timely way and at a reasonable cost. A rule of thumb is to plan on allocating 3 to 10 per cent of total programme resources for performance monitoring and evaluation.
7. **Reliable** — Can data of sufficiently reliable quality for confident decision-making be obtained? The data that a programme manager needs to make

reasonably confident decisions is not necessarily the same standard a social scientist requires. For example, a low-cost mini-survey may be good enough.

Economic surplus or cost-benefit approaches

One approach that is gaining wider acceptance is to use economic assessment of the impact of clearance operations to demonstrate effectiveness. The standard approaches used for economic assessments are collectively termed cost-benefit analysis. Cost-benefit analysis is used when both costs and benefits can be estimated in monetary terms. It focuses on the single criterion of maximising the economic surplus (i.e. the net benefit, or benefit minus cost). The basic approach is quite simple:

- First, estimate the benefits — in monetary terms — that will arise over time (e.g. current year, year 1, year 2, and so on) if a task is performed;
- Second, estimate the costs — in monetary terms — that will be incurred over time if the task is performed;
- Third, subtract the costs from benefits to obtain the net benefits for the current and future years; and
- Fourth, “discount” (see Box 8. *Discounting and the time-value of money*, below) the net benefits for future years to obtain the net present value (NPV), internal rate of return (IRR), and/or Benefit-Cost Ratio.

Box 8. Discounting and the time-value of money

If given a choice between receiving money today and the same amount some time in the future, people typically choose to take the money immediately. This phenomenon is termed the “time-value of money”, but it holds more generally for any “good” or benefit: most chocolate-lovers will choose chocolate today over the promise of the same chocolate in a month. Similarly, most people will want to delay a cost (or a “bad”). Put in other words, people “discount” the value of future benefits. The “rate of discount” is calculated by seeing how much more of the future benefit a person would demand to exchange it for the benefit today.

For example, if a person would be just willing to exchange US\$100 today for US\$110 a year from now, the annual discount rate is 10 per cent, and the calculation is $US\$100 \times (1.10) = US\110 . The equivalent amount in two years would be $US\$100 \times (1.10)^2 = US\121 , and the general formula is $FV = PV \times (1 + r)^y$, where: FV = future value PV = present value r = annual discount rate y = number of years in the future.

Rearranging, we obtain the basic formula for discounting a future value to calculate the present value: $PV = FV / (1 + r)^y$.

The *Study of Socio-Economic Approaches to Mine Action* conducted cost-benefit analysis in both Laos and Mozambique. Based on a cost-benefit analysis of

UXO disposal operations in Laos, the study found that, with continuing control of costs, future clearance of unexploded ordnance could be justified on economic grounds alone. Thus, beyond the humanitarian imperative UXO LAO can now go to donors and ask for funds on the basis that not only will there be human and social benefits to funding future clearance, but also it will be an effective use of financial resources.

Moreover, the analysis showed that the decision to establish a national mine action programme was certainly defensible on economic logic, as future benefits should eventually justify the heavy start-up and capacity-building costs.

Conversely, the analysis for Mozambique suggests that large-scale clearance of mined agricultural land will not, in itself, make a significant net contribution to Mozambique's continued development. A more targeted approach is appropriate, and the study offered two suggestions:

- First, adequate land is generally available in all regions except Mozambique's south. But even there the main vulnerability cited by farmers is drought, not a shortage of land. This suggests that economic and social benefits would accrue more from investments in water control than general mine clearance, and clearance activities should support small-scale irrigation and other water projects.
- Second, seasonal labour shortages — and particularly women's labour — are typically a more binding constraint on smallholder agricultural production in Mozambique than is land. A 10 per cent increase in the time women have available to tend crops would pay greater dividends than a 10 per cent increase in land available for cropping. Once again, mine action in support of village water projects that reduce the time women spend collecting water would result in higher economic and social benefits than general mine clearance of agricultural land.

The lesson from economic analysis suggests that mine action managers need to understand the principal social and economic features of the mine-affected countries and their communities and identify the specific factors that limit economic growth and bind people in poverty. Mine action that addresses these binding constraints should be accorded priority.

In addition to being a method for evaluating success, cost-benefit analysis is also a forward-looking tool that can assist in prioritisation. If all alternative tasks are analysed as above, they can be ranked in terms of one or more of the cost-benefit measures. This in effect maximises the economic benefits that can be obtained with the available mine action resources. In addition, where the overall mine action programme can be shown to deliver high economic returns, then there is a strong case for donors and the local government to maintain or increase funding. In short, cost-benefit analysis is an extremely powerful technique many would argue has the strongest logical foundation of any of the individual priority-setting methods.

However, there are practical problems with using cost-benefit analysis for priority-setting within mine action programmes.

- First, it requires substantial effort in collecting and processing economic and technical data, which often is difficult to obtain in developing countries; particularly those emerging from conflict.
- Second, it requires significant expertise to analyse the data.
- Third, there is a danger the process will become “expert-led” and neglectful of inputs from other stakeholders.
- Fourth, operators may refuse to share all their cost data because they fear it will demonstrate the falseness of their claims that they are the cheapest.
- Fifth, it can be extremely difficult to estimate a financial value for important mine action benefits, such as the reduction in deaths and injuries or the increase in a community’s sense of physical security.
- Sixth, many people in the humanitarian and development fields find it repugnant to even attempt to put a financial value on human lives and suffering and, therefore, question the legitimacy of this approach (although they do so indirectly when they insure a deminer!). While in theory these problems often can be overcome, this requires refinements that complicate the analysis so that, in practice, the results could easily be manipulated to justify certain tasks which should not be priorities. Programmes need to ensure they use qualified people who are transparent about the specific methodology used and the assumptions employed if they wish the findings of their cost-benefit studies to be accepted by donors, operators, government officials, and other key audiences.

Because of these practical problems, cost-benefit analysis is not yet used in any mine action programme as the principal method for setting individual task priorities. However, increasingly it is used in programme evaluations to compare the economic returns accruing to various broad categories of mine action the programme commonly undertakes (e.g. clearance of rain-fed and irrigated rice land in Laos; clearance of crop land, pastures, roads, and residential areas in Afghanistan; clearance of residential land in different-sized communities in Bosnia and Herzegovina). These evaluations have then led to recommendations to adjust priority-setting criteria and/or to modify the strategic direction of the programme (e.g. to reduce clearance of pasture land in favour of road clearance). In the near future however, some mine action programmes are likely to incorporate cost-benefit considerations more explicitly as one of the criteria used in setting task priorities.

Measuring outcomes as well as outputs

We started by stressing the central importance for mine action to achieve — and measure — outcomes as well as outputs. Thus, there is increasing recognition in the mine action community of the importance of so-called “Land Use” or “Post-Clearance” surveys, which involve a review of the actual use of demined land a number of months or even years after the completion of clearance. Such surveys help to ensure that priority-setting has been carried out correctly and that coordination with other development actors is adequate so

communities can transform the outputs of mine action into sustainable developmental outcomes.

There may be a number of reasons why land is not being used as intended — issues of land-ownership, a lack of confidence in clearance, a lack of community inputs, such as seeds or fertiliser. Discussions with the local community should swiftly identify the obstacle(s) to successful and sustainable outcomes. You should consider a regular external review of land use (say, every three to five years) with much more frequent internal review. Your quality assurance officer or logistics team will often pass by previously demined sites — they should, as a matter of course, check on how the land is being used and report back. This is a cheap, easy and effective way to measure success.

And although efforts have focused on mine clearance, the principles apply equally to mine awareness and victim assistance. Thus, it is not the number of mine awareness “briefings” that are given that determines the success of the programme, but the effective and sustained changes in behaviour of the target audience. Similarly, it is not the number of prostheses produced and fitted, but the number still being worn by amputees in the community six or 12 months later that counts.

7

A focus on decisions

The aim of this Guide has not been to teach mine action practitioners to be experts in socio-economics; rather, it is sought to illustrate how socio-economic information can assist programme planners and managers in decision-making. Thus, the focus has been on the key decisions which largely determine whether a mine action programme performs well, and improves its performance over time.

Good decisions are *informed* decisions. As mine action is not simply about mines but deals rather with the impact of landmine and UXO contamination on people, managers need to obtain a wide range of information including where and how people live, how their communities are organised, what resources they need to prosper, and how their lives are changing over time.

Rarely will this range of information be available from the start of a programme, so managers need to decide how to bridge their knowledge gaps. As we know, mine action programmes typically exist in countries which are undergoing rapid change. This creates additional challenges: we not only need information about current needs and how best to meet these, but also information about what the future holds. How will the country's broad priorities change? Will there be new government and/or international actors that the programme will need to work with?

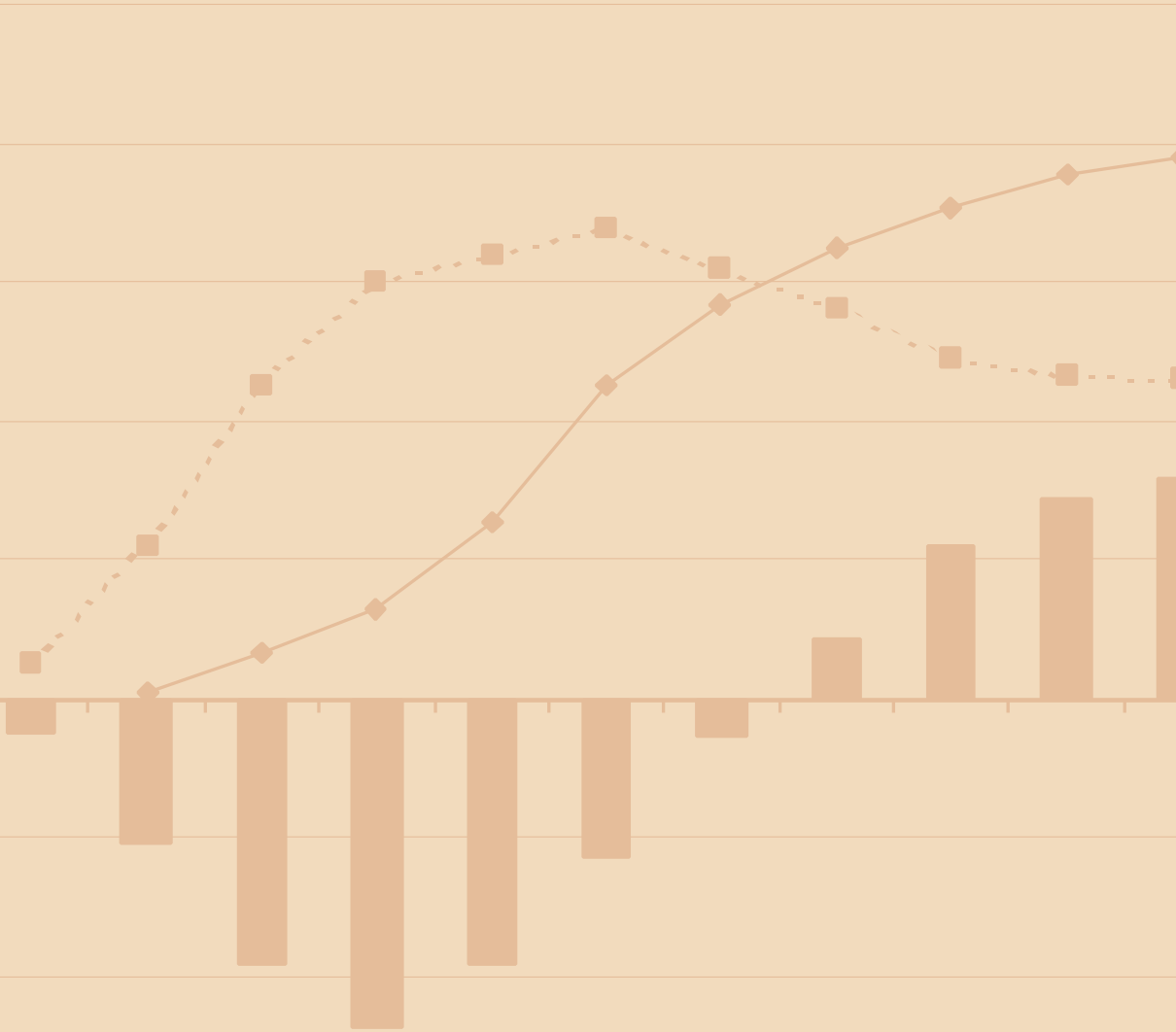
At all times, the emphasis should never be on collecting more data for its own sake; rather, mine action planners and managers have to obtain the data they require to make more informed decisions or the performance of their programmes will not improve. Also, adopting a socio-economic approach to mine action does not mean that social and economic data is somehow more important than technical data on the nature and extent of landmine and UXO contamination; rather, understanding people's needs and how a mine action programme can best respond to these needs requires both socio-economic and technical data — and the right types of both of these sources of information must get to decision-makers if they are to make sound, well-informed decisions.

Remember, we are all striving to ensure that mine action programmes perform well in meeting the needs of people in mine-affected communities: in

brief, as mine action practitioners, we need to align our resources with their needs. This typically entails a sequence of decisions — from the ground up: determining people's needs (and, therefore, our priorities); then ensuring our programme's objectives accurately reflect people's needs; and finally allocating our resources in line with our objectives.

Useful websites

- **E-MINE (Electronic Mine Information Network)**, available at www.mineaction.org.
- **DEVELOPMENT GATEWAY**, hosted by the Development Gateway Foundation (www.developmentgateway.org), and supported by the World Bank.
- **ELDIS**, hosted by the University of Sussex in the UK (www.eldis.org), has a wide range of country profiles and thematic issues.
- **GICHD** has prepared *A Guide to Developing National Mine Action Legislation*, which, along with much other mine action information, is available at www.gichd.ch.
- The **INTERNATIONAL COMMITTEE OF THE RED CROSS** website, www.icrc.org, has examples of legislation which could be needed to give legal effect to a country's undertakings under the Anti-Personnel Mine Ban Convention, along with an information kit to assist States in meeting their Convention obligations.
- **RELIEF WEB**, a site supported by the United Nations Office for the Coordination of Humanitarian Affairs (www.reliefweb.int), with information from the UN and NGOs.
- For information about **UNDP's** support for mine action, see www.undp.org/bcpr/mineaction.
- **USAID's** Performance Monitoring and Evaluation TIPS is one of the best guides for selecting and using indicators to measure the success of development programmes and projects. See www.dec.org/usaids_eval/#004.



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