

A FRAMEWORK OF INTERNATIONAL MINE ACTION STANDARDS AND GUIDELINES

(A STRAWMAN PAPER BY ALASTAIR MCASLAN)

INTRODUCTION

1. In July 1996, international standards for humanitarian mine clearance programmes were proposed by working groups at a conference in Denmark(1). Criteria were prescribed for all aspects of mine clearance, standards were recommended and a new universal definition of 'clearance' was agreed. In late 1996 the principles proposed in Denmark were developed by a UN-led working group into International Standards for Humanitarian Mine Clearance Operations. A first draft of these standards was issued by the UN Mine Action Service (UNMAS) in March 1997.

2. At the time these standards were issued it was acknowledged that they should be reviewed every two years to reflect developing mine action practices and procedures. The requirement for such a review in 1999 is included in the UNMAS Cost Plan and in the UN Portfolio of Mine-related Projects dated April 1999.

3. The purpose of this strawman paper is to discuss the role of standards and standardization in mine action, review the status of existing standards and guidelines, and make recommendations.

DEFINITIONS

4. Standard(s). A standard is '.... a measure, or quality or object serving as a basis or example or principle to which others conform, or should conform, or by which the accuracy or quality of others is judged.'(2) It is something which is agreed and fixed, and it enables tasks and activities to be conducted in a constant and consistent way '... and thus ensure that products, processes and services are fit for their purpose.'(3) A standard provides a 'benchmark' against which progress and performance can be measured.

5. SOPs. Standing operating procedures(4) (SOPs) are instructions which define the preferred method of conducting an operational task or activity. Their purpose is to establish recognizable and measurable degrees of uniformity, consistency and commonality within an organization, with the aim of improving operational effectiveness and safety. SOPs should reflect local requirements and circumstances.

6. Guidelines. Guidelines are '.... general rules, principles or pieces of advice'.(5) The use of guidelines may confer advantages or benefits, but there is usually no requirement or obligation for them to be accepted or adopted (c.f. standards).

7. Policy. Policy defines the purpose and goals of an organization, and it articulates the rules, standards and principles of action which govern the way in which the organization

aims to achieve these goals. Policy is prescriptive and compliance is assumed, or at least is encouraged.

A FRAMEWORK OF MINE ACTION STANDARDS AND GUIDELINES

8. The term 'mine action' refers to those activities which, together, aim to reduce the social, economic and environmental impact of landmine contamination. Mine action (and its constituent activities) cannot be addressed in isolation as there is much overlap with complementary humanitarian and developmental programmes and projects, and in some cases with peacekeeping and peace support operations. Mine action requires management planning at global, national and local levels, and involves international, national, commercial, NGO and military stakeholders operating under a variety of conditions. Thus it is not possible, nor is it desirable, to establish a unique set of criteria which alone define mine action standards and guidelines. Instead, it is necessary to identify a framework (or network) of standards and guidelines which, together, harmonise the manner in which activities and tasks are conducted by the different organisations and agencies involved in mine action.

NATIONAL STANDARDS

9. National MACs will normally apply appropriate national standards to tasks and activities conducted as part of a national mine action programme. There may be circumstances when national standards do not exist, are inappropriate or cannot be enforced due to lack of suitable governance or will. It will then be necessary to apply other appropriate standards, such as those discussed below. There may also be circumstances when a donor, or an agency such as UNOPS acting on behalf of a donor, replaces national standards with other standards that are considered more suitable. This may be necessary on legal or practical grounds, or to encourage the wider adoption of international norms and practices, but care must be taken not to alienate the national authorities.

ISO

10. The International Organisation for Standardisation (ISO) is a worldwide federation of national bodies from over 130 countries. The organisation has a mission to promote the development of standardisation with the aim of assisting cooperation in the areas of intellectual, scientific, technological and economic activity. Its work results in international agreements which are published as ISO standards.

11. ISO standards are developed by international consensus among experts drawn from the industrial, technical and/or service sectors which have expressed the need for a particular standard. These may be joined by experts from government, regulatory authorities, testing and evaluation bodies, academia and other organisations with appropriate knowledge or a direct interest in the standard under development.

12. ISO is a NGO and the standards it develops are voluntary, although some (mainly those concerned with health, safety and environmental aspects) have been adopted by many countries as part of their regulatory framework. ISO deals with the full spectrum of human activities and many of the tasks and processes which constitute mine action will have a relevant standard. A list of ISO standards is given in the ISO Catalogue; see www.iso.ch/infoe/catinfo/html.

13. ISO has an international reputation for integrity and neutrality, and it enjoys a special working relationship with international organisations including the United Nations, and with regional organisations including the European Union. Thus ISO is positioned to play a major role at the centre of the framework of mine action standards.

EC STANDARDS

14. Within Europe the CEN and its partner organisations, principally the ETSI and CENELEC(6), have a mission to draw up European standards and to promote standardisation. European standards (ENs) deal with a full range of tasks, and some are relevant to mine action. Members of the European Union are expected to implement ENs by giving them the status of a national standard. The Vienna Agreement of 19xx enables ENs to be adopted as ISOs and vice versa.

UN STANDARDS

15. The United Nations does not currently have an overall policy on standards and standardisation. Guidelines for sectoral procedures and practices have been developed by UN departments and agencies such as DPKO Mission SOPs, but there is no UN-wide coordination of standards or the promotion of standardisation in a manner similar to ISOs or ENs.

16. Mine Clearance Standards. The United Nations' document International Standards for Humanitarian Mine Clearance Operations (of March 1997) includes standards for mine survey and hazard marking, clearance procedures and levels, communications and management information systems, training, site safety and medical requirements. These standards, which address mainly procedures and processes, provide a reference and benchmark for the production of national and local standards and SOPs. They are accepted by the majority of the mine action community as the **de jure authority** on clearance standards, although they need to be reviewed to make them easier to use in the field and to reflect developing mine action practices and procedures, such as the use of dogs and mechanical ground processing systems. There is also a need to distinguish much more clearly the difference between clearance standards and guidelines.

17. Clearance Levels. One standard which is particularly difficult to interpret by mine action programme managers and at field level is the definition of 'clearance'. International Standards for Humanitarian Mine Clearance Operations state that:

An area is cleared when all mines and munitions have been removed and/or destroyed. All debris from mines and munitions such as fuze systems, percussion caps and other items that constitute an explosive hazard, is to be removed.

The area should be cleared of mines to a standard and depth which is agreed to be appropriate to the residual/planned use of the land, and which is achievable in terms of the resources and time available. The contractor must achieve at least 99.6% of the agreed standard of mine clearance. The target for all UN sponsored clearance programmes is the removal of all mines and UXO to a depth of 200mm.

There are many problems with this standard. First, no guidance is given on how to assess what is 'appropriate'. Second, no prodders and few hand held mine detectors will safely detect minimum-metal anti-personnel mines down to 200mm. Third, 99.6% must be translated into something which is measurable and can be verified by quality assurance; there are currently no common guidelines for interpreting how 99.6% can be measured or objectively verified in different circumstances.

18. Procurement Guidelines. In October 1998, UNMAS issued draft International Guidelines for the Procurement of Mine Action Equipment. Their purpose is to establish a common approach, and to provide international guidelines on procurement procedures and practices. The term 'procurement' refers to the process of research, development and production (or purchase off-the-shelf) which leads to an item of equipment being accepted as suitable by field-users for use in mine action programmes, and continues with the provision of spares and equipment modifications. UNMAS has invited the Geneva International Centre for Humanitarian Demining (GICHD) to coordinate the development of these Guidelines, including their distribution and implementation. This will involve the development of electronic editions for publication on CD-ROM and on web sites, and a management training programme to ensure their proper application.

19. Mine Awareness Guidelines. In March 1999, the UN published International Guidelines on Landmine and UXO Awareness Education. Their purpose is to act as a 'reliable point of reference' and therefore promote effective planning, implementation, monitoring and evaluation of mine awareness programmes. A management training programme is being developed by UNICEF for UN staff engaged in landmine and UXO awareness projects to ensure the proper and consistent application of the Guidelines.

INFORMATION STANDARDS

20. The mine action community has acknowledged the need for better information in order to improve the allocation of resources to mine action activities. It is imperative that appropriate information on the mine threat and impact is collected, analysed and applied in a consistent, transparent and timely fashion.

21. Assessment Missions. In March 1998 the UN initiated a formal programme of multidisciplinary and multisectoral assessments of mine affected countries. These assessment missions have been conducted to determine the scope, nature and general

impact of the mine and UXO problem. They aim to assess whether a UN-sponsored mine action programme is required, and if so whether a programme is possible in the foreseeable future. Assessments have also been carried out by other organisations and agencies, often with a narrower focus and mandate than the UN's multidisciplinary and multisectoral missions. Much experience has been gained over the past two years on the planning and conduct of assessment missions, and on the analysis and distribution of the information resulting from such missions. It would be appropriate and timely to build on this experience and establish a set of international guidelines for future assessments.

22. National (Level 1) Surveys. Level 1 survey was defined originally in the International Standards for Humanitarian Mine Clearance Operations as the process of identifying and mapping all suspected mined areas. This definition of national (level 1) survey has been developed by the international Survey Working Group (SWG) as '... an information/data gathering process designed to collect information on areas contaminated, suspected to be contaminated or uncontaminated by mines or UXO. This process is intended to provide a basis for analysis to measure the impact of the national mine/UXO problem and to identify critical planning criteria.' The SWG has developed a methodology, and has established a set of standards and guidelines, which govern the conduct of national (level 1) surveys planned and coordinated by the Survey Action Center (SAC) and its partners. However, the international status and authority of these standards and guidelines needs to be clarified.

23. Indicators of Impact. It is now universally recognised that mine action is not just about demining, it is about reducing the social, economic and environmental impact of mines. It is about people and societies, and their interactions with land contaminated by mines and UXO. However there is no consensus on how to categorise or conceptualise the degree of this impact. Although the Survey Working Group (SWG) has proposed 'indicators of impact' for use by the Survey Action Center (SAC) in its programme of Level 1 surveys, these indicators are not yet common currency. The United Nations has invited GICHD to coordinate a study which will take forward the work of the SWG/SAC and will develop internationally agreed indicators of impact. These socio-economic indicators will provide for the first time a standard approach to assessing and prioritising needs by adopting common criteria. It will also be possible to use these indicators to monitor progress and to assess degrees of success.

24. IMSMA. The Information Management System for Mine Action (IMSMA) is being developed for the UN by the GICHD, with technical support provided by the Swiss Federal Institute of Technology. It is envisaged that the IMSMA field module will be used in national mine action centres, by organisations performing field assessments and surveys, and by other organisations and agencies engaged in mine action at field level. The IMSMA headquarters module will aggregate data provided by the field modules to provide information for mine action planning, international coordination and decision-making at the strategic level. By definition, IMSMA will standardise the way in which mine action information will be held at the national mine action centres, and the way in which reports and returns are provided to UN headquarters. Later versions of the IMSMA field module will provide managers at national level with decision-support tools. These tools will provide a common approach to the management of information based on best-practice, which should

lead to consistent and transparent management decisions and properly orchestrated collective action, without constraining national initiatives.

LAND DECONTAMINATION STANDARDS

25. In many respects the threat from mines and other forms of unexploded ordnance is similar to the hazards posed by land contaminated with chemical compounds through leakages, spillages and waste disposal. Such chemicals potentially can present serious hazards to human health, the integrity of buildings, animal and plant populations and in the longer term may damage the wider environment.

26. Thus countries affected by mines may wish to treat the mine threat as a form of pollution, and apply appropriate site investigation and remediation standards to the conduct of national mine clearance programmes. In this respect, it is important to note the European Environment Agency's TOPIC initiative, which is attempting to rationalise risk assessment methodologies for land decontamination within the European Union.

TERMINOLOGY

27. In 1997 a document of common demining terminology and abbreviations was published in UN Terminology Bulletin No. 349. Since then, new terms have been introduced and others have changed. A revised list is required.

OTTAWA CONVENTION

28. The Ottawa Convention's Intersessional Standing Committee of Experts (SCE) on Mine Clearance has identified the need to define appropriate and achievable clearance standards which satisfy the requirements of the Convention. Such guidance will help ensure that finite and limited resources are applied effectively and appropriately. A working group will be nominated at the initial meeting of the SCE in September 1999. The group's task will be to define appropriate and achievable standards, and to make recommendations at the Second Meeting of the States Parties in Geneva in September 2000.

THE APPLICATION OF STANDARDS

BENEFITS VS DISADVANTAGES

29. Standards will normally be accepted if it is perceived that their adoption will confer greater benefits than disadvantages. For issues such as safety there should be absolute agreement on the need to adopt appropriate standards and professional codes of conduct to minimise unnecessary risk.

30. For other issues, however, there may be a genuine difference in the perception of the balance between benefits and disadvantages. For example, at the international level it may appear attractive to encourage a policy of greater standardisation, by defining common equipment requirements leading to collaborative equipment projects. Such a policy should

reduce development and production costs and risk. But at a national level there may be a real (or perceived) difference in needs and priorities. Furthermore, there may be different perceptions of the urgency and timeliness of the requirement: the needs from a local (field) perspective are now; national planning addresses the immediate and medium-term future; strategic planning embraces longer-term needs and solutions.

31. Thus the balance of benefits and disadvantages is not objective and absolute. Policies which encourage greater standardisation should acknowledge the range of opinions at international (i.e. strategic), national (i.e. programme) and field (i.e. project) levels. Strategic policy decisions should be based on a consensus - otherwise they will not be adopted willingly at national and field levels.

LEGAL IMPERATIVES

32. In most countries, employers have a legal obligation to provide their staff with effective equipment(7), training and supervision, by adopting appropriate procedures and practices, and by ensuring a safe working environment. Whenever possible, an objective assessment of essential, appropriate and safe is provided through national standards and professional codes of conduct. Donors, or agents acting on behalf of donors, have an obligation to ensure that such standards exist, are appropriate and complete, and that they are applied in an effective manner. The form and extent of the donors' responsibilities and legal liabilities must be defined in the enabling documentation, such as MoU and contracts.

DE-CONFLICTING STANDARDS

33. There will be occasions when more than one group of standards may apply. For example, contaminated land may contain various natures of unexploded ordnance, including: live anti-tank and anti-personnel mines, booby traps, bombs, corrosive and volatile missile fuels, chemical weapons, biological weapons and depleted uranium (from tank ammunition). Some of these natures could provide an immediate threat to individuals, others could provide a longer term and cumulative danger. Each category of threat could be subject to different clearance procedures and standards, but it may not be practicable to apply different levels of decontamination to the same area of land. In such circumstances it will be necessary for national MACs, together with other interested bodies and international partners, to standardise the approach, ideally from the outset. The identification of appropriate standards and the de-confliction of different standards, is a key responsibility of national programme managers, assisted as required by experts provided by partner organisations such as the UN, donors and NGOs.

STANDARDS AND QUALITY MANAGEMENT

34. The concepts of 'quality' and 'standards' are connected, and it is necessary within the context of mine action to clarify the relationship, and to acknowledge the difference.

35. The term 'quality' implies a product or service which is 'fit for purpose', and which satisfies the stated requirement. It implies consistency and completeness. Quality

management systems (QMS) are the processes, procedures, decisions and information which, together, deliver quality products and services.

36. QMS for mine action comprise three elements. First, standards and codes of practice which define mine action procedures and performance: these are contained in the International Standards for Humanitarian Mine Clearance Operations and other relevant national and international documents. Second, a management system that facilitates the application of these standards: ISO 9000 and its national equivalents, if properly applied, provide this management discipline. Third, an institutional structure such as professional organisations(8) and governing bodies which establish rules and procedures and exercise professional authority over the members.

37. Thus standards are an essential component of QMS, but they require an effective management system and institutional structure to ensure that they are applied effectively, consistently and appropriately.

STANDARDS AND RISK

38. Risk management involves the identification, analysis, assessment and reduction of risk to '... a level which is deemed to be appropriate and achievable'. Indeed, this is the definition of mine clearance in the current edition of International Standards for Humanitarian Mine Clearance. The challenge we face is to understand better how to define 'appropriate' and 'achievable'.

39. The concepts of risk and risk management are well understood in many other activities which involve uncertainty, and may involve potential equipment and human failure for example: the handling of toxic chemicals and contaminated blood, the operation of nuclear power stations, deep water oil exploration and the servicing of civilian aircraft. Failure in any of these activities could be catastrophic and it is therefore necessary to analyse the processes, isolate areas of potential risk and introduce additional measures to reduce the risk to an acceptable level.

40. The clearance of landmines and other categories of post-conflict battlefield hazards is a particularly dangerous and demanding activity, indeed few activities offer so much potential harm. Equally, the failure to clear mines has a major political and socio-economic impact on communities and societies, in addition to the physical harm to individuals. The need to develop the management tools to identify, analyse and assess the risk is self-evident. Categories of risk should be agreed, and the tools and methodologies should be developed which Governments, international organisations and NGOs could mandate to ensure consistency and conformance with agreed standards.

STRATEGIC THINKING

41. Policy defines the purpose and goals of an organisation, and it articulates the rules, standards and principles of action which govern the way in which the organisation aims to achieve these goals. Policy is enduring, but it is not unchanging. It evolves in response to

strategic direction, in the light of field experience, or as a result of new technology. In turn, it influences the way in which plans are developed, and how resources are mobilised and applied.

42. The debate and thinking which underpins the development of policy is referred to as 'doctrine' by the military community. Knowledge and understanding of military doctrine, and its application provide a common approach and way of thinking which is not bound by prescriptive rules and standard operating procedures. If properly applied, it leads to consistent behaviour, mutual confidence and properly orchestrated collective action, without constraining initiative.

43. The advantages conferred by the proper application of doctrine, particularly at the strategic and operational levels of command, have been noted by those outside the military community. Recently it has been adopted by political leaders and by managers in the private and non-profit sectors, although it is sometimes referred to as 'strategic thinking'.

This paper has argued that it is neither possible nor desirable to establish a unique set of criteria which alone define mine action standards and guidelines. Instead, it is necessary to encourage a higher-level management approach which, together with a framework of standards and guidelines, will harmonise the manner in which activities and tasks are conducted by the different organisations and agencies involved in mine action. Subjects which may benefit from such strategic thinking are, for example:

- a. The nature of mine action.
- b. The integration of mine action with other humanitarian and developmental activities and programmes.
- c. Emergency mine action in UN peacekeeping and peace support operations.

RECOMMENDATIONS - THE WAY AHEAD

The concept of mine action has developed since the publication in 1997 of the UN's International Standards for Humanitarian Mine Clearance Operations. International interest and funding has increased, as has the need for improved co-operation and co-ordination. It is recommended that a framework of action be established to provide structure and coherence to the growing number of standards and guidelines. A possible framework of action is shown at Annex A. The following points should be noted:

- a. The UN should be responsible for providing overall direction and co-ordination for the framework of mine action standards and guidelines.
- b. Responsibilities for the development and/or revision and implementation of each standard and guideline will vary, as proposed in the framework at Annex A. UNMAS may choose to delegate responsibility for some work, for example UNDP may be best placed to co-ordinate

the preparation of management training standards, and of guidelines for programme managers.

c. The schedule of development and revision of each standard and guideline will vary.

d. Priority should be given to establishing a UN policy paper on mine action standards and quality management, and on the revision of the UN's International Standards for Humanitarian Mine Clearance Operations. Draft terms of reference for the revision of Mine Clearance Standards have been prepared(9).

Mine action **standards** should be kept to an absolute minimum. Rather, emphasis should be given to the development of **strategic thinking** and the preparation of **guidelines** based on field experience and best-practice. This should encourage a common approach and way of thinking, yet will recognise the unique conditions and requirements of each national mine action programme.

In the future it may be appropriate to make greater use of the ISO system. A number of mine action standards, in particular those to do with technology, would benefit from the status and authority which is conferred by ISO and its partner organisations.

The format and distribution of each standard and guideline will vary. UNMAS should retain overall control and will act as custodian for all appropriate standards and guidelines. However, there may also be merit in developing a website which would bring together all mine action standards and guidelines. Each standard and guideline would have its own web page within the website. The site would be linked to, and form part of, the UNMAS website although the sponsors of each standard and guideline would be responsible for the maintenance of their respective web pages, according to rules and protocols established by UNMAS. GICHD could assist UNMAS with the development of such a website.

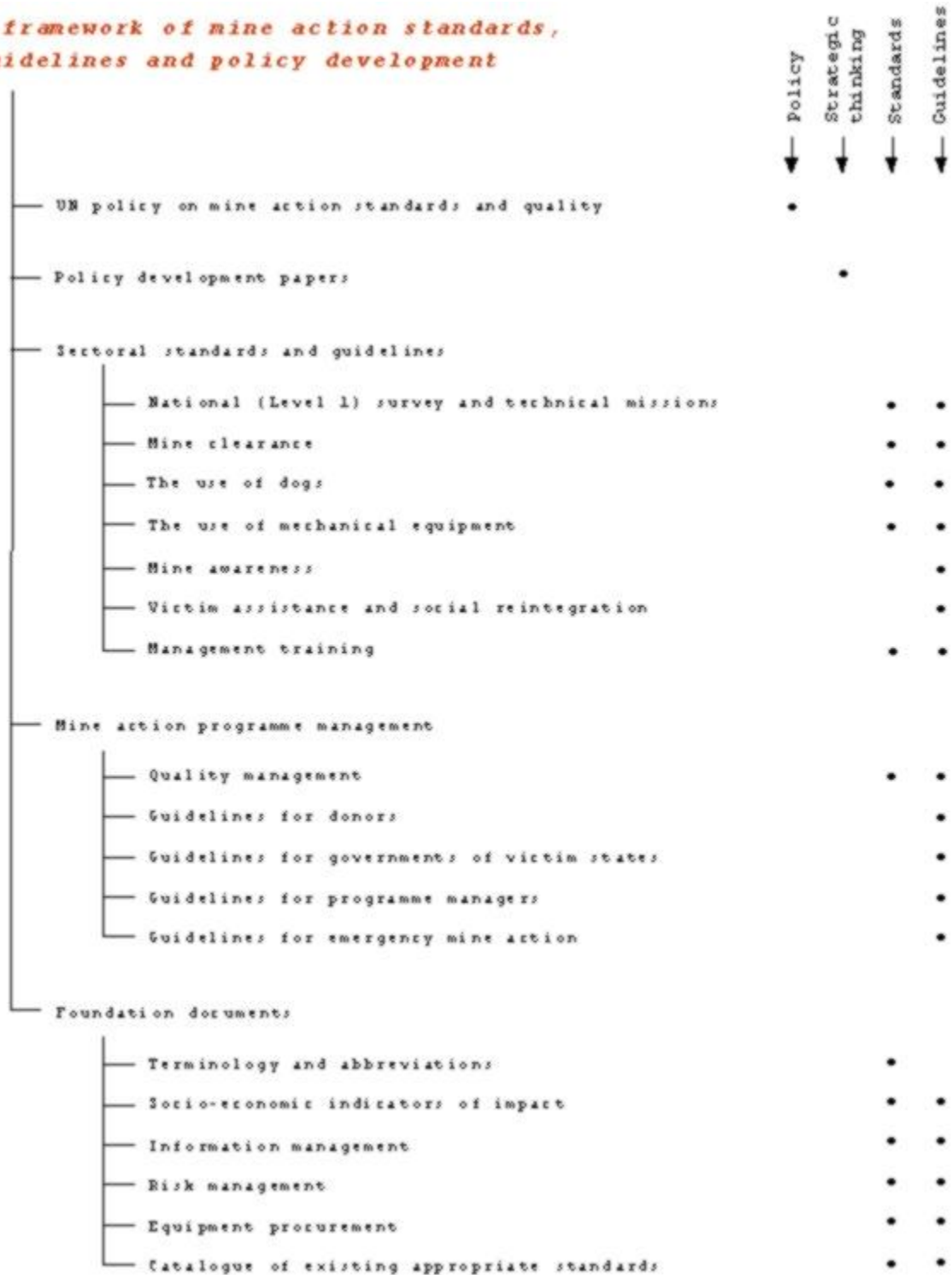
The cost of preparing and implementing mine action standards and guidelines should be included in the UNMAS Cost Plan for 2000 and in future editions of the UN Portfolio of Mine-related Projects.

Annex:

A. A Framework of Mine Action Standards and Quality Management.

Annex A:

A framework of mine action standards, guidelines and policy development



- 1.** The International Conference on Mine Clearance Technology co-sponsored by UN DHA and the Danish Government, held at Elsinore on 2-4 July 1996; often referred to as the Copenhagen Conference.
- b.** Concise Oxford Dictionary.
- b.** International Organisation of Standardisation (ISO).
- 4.** Sometimes referred to as standard operating procedures.
- 5.** Concise Oxford Dictionary.
- 6.** ETSI: the European Telecommunications Standards Institute. CENELEC: the European Committee for Electrotechnical Standardisation.
- 7.** Including materiel, stores and clothing.
- 8.** The Institution of Mine and Munition Clearance Engineers (IMMCE) which was formed in the UK in 1998 is currently only one example of such a body to represent organisations and individuals engaged specifically in UXO and mine clearance activities. The Institution is not restricted to UK membership.
- 9.** DPKO/MAS/3/9 dated 2 September 1999.