

Evaluation of the Geneva International Centre for
Humanitarian Demining (GICHD) 2008

Support for Technology and Mine Action Standards



LOTUS multi-sensor mine detection system (proof of concept)

Final Report

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Executive summary

Following the independent evaluation in 2007 of the mine detecting dog and mine risk education programmes of the Geneva International Centre for Humanitarian Demining (GICHD), the same evaluation team was asked to evaluate the **Technology** and **Mine Action Standards** programmes in 2008. Similar terms of reference were given as in 2007.

The scope of the evaluation was (i) an assessment of the programmes in terms of their outcomes and (ii) an “analysis of the programming and project-cycle processes” of the programmes. The methodology was document review, discussion with GICHD staff, guided interviews (undertaken at the 11th Annual UN Mine Action Programme Managers’ meeting), and analysis. Questionnaires were considered but rejected.

In both the programmes there is collaborative working with the United Nations Mine Action Service (UNMAS), with a Memorandum of Understanding covering some aspects of the joint work. The International Mine Action Standards (IMAS) are an UNMAS project for which the GICHD provides the secretariat and a very substantial technical input. The Technical Notes for Mine Action are a complement to the main standards; again the GICHD is the driving force. The support for countries developing their own national standards is a GICHD sole initiative. In the area of Technology, a joint newsletter has been produced by UNMAS and GICHD and, in 2006, a joint workshop was held. Mine Action Technology is a broad field which overlaps manual and mechanical demining, personal protective equipment, standards, as well as test and evaluation, mine detection dogs and other areas. This evaluation focussed on the in-country equipment testing, technology take-up and standards issues, as well as the support of the GICHD to meetings and conferences.

The key conclusions included the following:

- The GICHD is regarded as an impartial and authoritative centre in both domains.
- The GICHD has made significant contributions in both domains, and some (though not all) of these are widely recognised and generally appreciated.
- There is significant weakness in some parts of the project cycle. The GICHD overall strategy is well developed and clear, but there is a serious lack of formal process, and written documentation, for the next two stages of the project cycle. The GICHD is again very strong on annual activity planning. Developing the multi-annual goals that will achieve the objectives listed in the strategy, and then defining the programmes needed to achieve the goals are notably weak.
- More attention should be paid to focussing on programmes and projects which will have the greatest impact overall, not those which are urgent but have lower impact.
- Clear written guidelines for the participation of the GICHD with other actors, especially commercial companies, are urgently needed. The lack of such guidelines in the public domain is giving rise to some rumours and innuendo which reduce the Centre’s perceived impartiality.
- The GICHD is only one player in the IMAS process, but should use its voice to press for improvement of the strategic guidance of the programme, including reactivation of the IMAS Steering Group.
- For the Technology programme especially, there is a clear need to develop *cost effectiveness analysis* (CEA) and apply it in the evaluation of equipment and technologies. Without CEA, recommendations of equipment are likely to be unsatisfactory.
- There appears to be a need to introduce some new core skills to the Technology Programme (e.g. a major barrier to technology take-up is financial and contractual arrangements). A full time Technology Officer post at the GICHD is recommended, subject to the availability of resources.

The report ends with Recommendations.

Executive summary	2
0.1 Definitions	5
0.2 Abbreviations	6
1 Introduction	7
1.1 Objectives, Scope and Aim	7
2 Context & Methodology	8
2.1 Award of Evaluation Contract	8
2.2 Evaluation Methodology	8
2.3 Evaluation Team	8
2.4 Document Research and Review of Web sites.....	8
2.5 The Annual IMAS Review Board meeting.....	9
2.6 Interviews.....	9
2.7 Questionnaires.....	9
3 Organisation of this report	10
4 Mine Action Standards.....	11
4.1 Introduction to the Programme	11
4.2 Key achievements	11
4.2.1 Key achievements of the GICHD which influence both programmes	11
4.2.2 Key achievements of the Mine Action Standards programme.....	12
4.3 Findings from literature and Website review	12
4.3.1 Publications	12
4.3.1.1 General remarks concerning both programmes	12
4.3.1.2 Mine Action Standards publications	13
4.3.2 Websites	14
4.3.2.1 General remarks concerning both programmes	14
4.3.2.2 Mine Action Standards websites.....	14
4.4 Findings from the IMAS Review Board meeting	15
4.4.1 Introduction.....	15
4.4.2 GICHD and UNMAS – Terms of Reference of the evaluation	15
4.4.3 Composition of the Board and required qualifications	16
4.4.4 Scope and Purpose of the Review Board	16
4.4.5 Relationship of Review Board with other standards organisations.....	17
4.4.6 The use of Technical Notes for Mine Action.....	17
4.5 Findings from interviews	18
4.5.1 Issues affecting both programmes.....	18
4.5.1.1 Perception of the GICHD – access, support, partner selection	18
4.5.1.2 Perception of the GICHD – independence, transparency, commercial relationships.....	18
4.5.2 Interview responses: GICHD role in Mine Action Standards.....	18
4.6 Mine Action Standards: GICHD Strategy.....	19
4.6.1 Introduction and Principles	19
4.6.2 Operational Objectives.....	19
4.7 Mine Action Standards Programme Development.....	19
4.7.1 Introduction.....	19
4.7.2 Collaboration between NMAS and UNDP	20
4.7.3 Long term support to ITEP	20
4.8 Designing National Mine Action Standards activities to achieve programme goals .	21
4.9 Implementation Issues, National Standards Programme.....	21
5 Mine Action Technology	22
5.1 Introduction to the Programme	22
5.2 Key achievements	22
5.2.1 Key achievements of the GICHD which influence both Technology and Mine Action Standards	22
5.2.2 Key achievements of the Technology programme.....	22

5.3	Findings from literature and website review	23
5.3.1	Publications	23
5.3.1.1	General remarks concerning both programmes	23
5.3.1.2	Mine Action Technology publications.....	23
5.3.2	Websites	24
5.3.2.1	General remarks concerning both programmes	24
5.3.2.2	Mine Action Technology website	24
5.4	Internal documents of GICHD (Documents other than Publications)	24
5.4.1	Planning and reporting	24
5.4.2	Selection criteria	25
5.4.3	Cost benefit and cost effectiveness analyses.....	Error! Bookmark not defined.
5.5	Findings from interviews	26
5.5.1	Issues affecting both Mine Action Standards and Technology programmes	26
5.5.2	Interview responses: GICHD role in Mine Action Technology.....	26
5.5.2.1	Perception of the GICHD – independence, transparency, commercial relationships.....	26
5.5.2.2	Equipment advisory activities	27
5.5.2.3	Test and Evaluation.....	27
5.5.2.4	Language issues	27
5.6	Technology: GICHD Strategy.....	28
5.6.1	Introduction and Principles	28
5.6.2	Operational Objectives.....	28
5.7	Technology Programme Development (“Identification”).....	28
5.7.1	Introduction.....	29
5.7.2	Mine Action Technology issues in Programme development – topics out of scope	29
5.7.3	Mine Action Technology – issues in Programme development.....	29
5.7.3.1	Communication.....	30
5.7.3.2	Activities already undertaken in support of programme development (Identification).....	30
5.8	Designing Technology activities to achieve programme goals: “Formulation”	31
5.8.1	Advisory services.....	31
5.8.1.1	Mitigating Actions	32
5.8.2	Equipment take-up - What is the real issue?	32
5.8.2.1	Development-based approach	34
5.9	Implementation Issues for the technology programme	35
5.9.1	Overlaps with other programmes	35
5.9.2	Future staffing	35
5.9.3	Monitoring issues.....	36
6	Conclusions.....	37
6.1	Achievements.....	37
6.2	Programme Identification and Planning.....	37
6.3	Programme Outcome	38
6.4	Activities	39
7	Recommendations.....	40
8	List of Annexes	41
Annex A	List of Interviewees	42
Annex B	– Key documents.....	44
Annex C	– Evaluation Methodology	45
Annex D	– Detailed notes regarding the provision of Equipment Advisory Services	47
8.1.1.1	Cost data.....	47
8.1.1.2	The respected position of the GICHD.....	49
8.1.1.3	Potential solutions	49
Annex E	– GICHD Concept paper for annual work plan 2008 Technology Officer	50

0.1 DEFINITIONS

Programme	will be used to mean the overall range of activities in support of Mine Action Standards, or Mine Action Technology (as appropriate) of the GICHD, covered by this evaluation.
Inputs, Activities, Outputs, Outcomes, Stakeholders	will use the standard definitions of Project Cycle Management. This implies that Stakeholders will include all involved parties from donors to beneficiaries.
End users	will be used to mean the sub-set of stakeholders, usually in mine affected countries, who will be directly using the outputs of the programmes. This term is used to distinguish those who are most directly interested in the outputs from beneficiaries in general and stakeholders in general.

The accepted Development Evaluation Criteria¹ of: *Relevance, Effectiveness, Efficiency, Impact* and *Sustainability* will be applied as appropriate in this evaluation. The definitions of these terms are (from the OECD website):

<i>Relevance</i>	The extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor.
<i>Effectiveness</i>	A measure of the extent to which an aid activity attains its objectives.
<i>Efficiency</i>	Efficiency measures the outputs -- qualitative and quantitative -- in relation to the inputs. It is an economic term which signifies that the aid uses the least costly resources possible in order to achieve the desired results. This generally requires comparing alternative approaches to achieving the same outputs, to see whether the most efficient process has been adopted.
<i>Impact</i>	The positive and negative changes produced by a development intervention, directly or indirectly, intended or unintended. This involves the main impacts and effects resulting from the activity on the local social, economic, environmental and other development indicators. The examination should be concerned with both intended and unintended results.
<i>Sustainability</i>	Sustainability is concerned with measuring whether the benefits of an activity are likely to continue after donor funding has been withdrawn.

When these terms are used in the text of this report with these specific meanings they may be in an *italic* font.

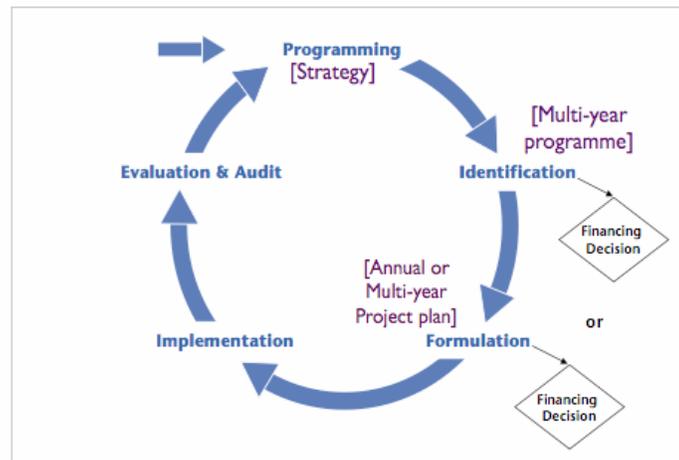


Diagram 1 The EC project cycle management loop²

¹ See, for example the OECD introduction to Development Evaluation at http://www.oecd.org/document/22/0,2340,en_2649_34435_2086550_1_1_1_1,00.html which offers definitions of all these terms and further documents on development evaluation.

² See http://ec.europa.eu/europeaid/qsm/documents/pcm_manual_2004_en.pdf

0.2 ABBREVIATIONS

CEA	Cost Effectiveness Analysis
CEN	European Standards Committee
CWA	CEN Workshop Agreement
EUDEM and EUDEM2	European Union in Humanitarian Demining (European Commission co-funded projects)
GICHD	Geneva International Centre for Humanitarian Demining
IMAS	International Mine Action Standards
IMSMA	Information Management System for Mine Action
ISG	IMAS Steering Group
ITEP	International Test and Evaluation Programme for Humanitarian Demining
MDD	Mine Detection Dog
MoU	Memorandum of Understanding
MRE	Mine Risk Education
NGO	Non-Governmental Organisation
NMAS	National Mine Action Standards
NMAS	National Mine Action Standards
OECD	Organisation for Economic Co-operation and Development
PCM	Project Cycle Management
RB	Review Board
T&E	Test and Evaluation
TNMA	Technical note for Mine Action
ToR	Terms of Reference
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNMAS	United Nations Mine Action Service
UNOPS	United Nations Office for Project Services
VUB	Vrije Universiteit Brussel

1 Introduction

1.1 OBJECTIVES, SCOPE AND AIM

The **Objectives** of the evaluation were defined in the Terms of Reference (ToR) as:

- To assess the results achieved by specific GICHD programmes products or services
- To strengthen the GICHD focus on, and contributions toward the achievement of good outcomes in the field.

The **Scope** of the GICHD work to be evaluated in the ToR defines two areas for evaluation:

1. An assessment of two programmes in terms of their outcomes:

(a) Technology and

(b) Mine Action Standards, the latter of which has three principal components:

- International Mine Action Standards (IMAS)
- Technical Notes for Mine Action (TNMA)
- National Mine Action Standards (NMAS)

The United Nations Mine Action Service and the Geneva International Centre for Humanitarian Demining have signed a Memorandum of Understanding which covers *inter alia* division of tasks and responsibilities for IMAS and TNMA (see section 2, below, for details). The GICHD proposed a joint evaluation of both the UNMAS and GICHD elements, but this was not accepted by UNMAS. The scope of this evaluation is therefore limited to evaluation of the GICHD role in this programme, and UNMAS actions only in as much as they have an impact on the GICHD work. The development of NMAS is a GICHD programme and covered in this report.

2. An “analysis of the programming and project-cycle processes” of the Technology and Mine Action Standards programmes.

In short, the overall goal of this evaluation is to assess whether these two GICHD programmes “have made a difference” – especially as far as the end-users are concerned. The issue of whether the impact is *optimal* will also be discussed, i.e. whether the impact was the best that could have been obtained with the given time and resources. This addresses the criterion of *efficiency*.

The first point of the scope requires that the programme outcomes are identified and evaluated, and can be considered as answering the questions: Was the selected programme correctly formulated and implemented?

The second point of the **Scope** can be considered as answering the question: Was the programming and Project Cycle Management (PCM) successful in choosing the right programme? This means the “right programme” in terms of the defined strategy and goals of the GICHD and optimising the use of the available resources to maximize *impact*.

The **Aim** of this report is to set out the findings of the evaluation of GICHD contributions in the domains of Technology and Mine Action Standards, conducted between February and April 2008, and make recommendations about possible improvements in GICHD methods and interventions in the future.

2 Context & Methodology

This is the second programme evaluation contracted by the GICHD; in 2007 the same evaluation team looked at the Mine Detection Dogs (MDD) and Mine Risk Education (MRE) programmes of the Centre. Both of these programme evaluations follow on from an earlier Management Evaluation in 2004 which recommended programme evaluation. The Terms of Reference for the two programme evaluations in 2007 and 2008 were very similar to each other and this report will in places refer back to the MDD and MRE report in order to make some relevant comparisons. The time allocated for the evaluation was substantially less, at about two thirds of the total for the 2007 evaluation - this constraint was due to the relative timing of the 11th Annual UN Programme Managers' meeting and the GICHD Council of Foundation meeting, but proved a constraint on the scope and depth of analysis, in particular the follow up of points raised in the interviews by document research.

2.1 AWARD OF EVALUATION CONTRACT

The GICHD drew up a short list of consultants and requested expressions of interest in bidding for the evaluation contract. The Terms of Reference and Bid reference documents, circulated to the short list, gave detailed guidelines. Subsequently, a contract was offered to the evaluation team without requesting a formal bid.

2.2 EVALUATION METHODOLOGY

An analysis of the ToR led to restructuring of the questions, objectives and scope according to a more formal project cycle methodology. These were then tabulated according to the accepted phases of "The Project Cycle"³. The resulting tabulation is included Annex C to this report, and forms the outline structure of the evaluation. The EC version of the Project Cycle diagram is included in Section 0.1 Definitions (page 5) for reference. The notes in square brackets added to the diagram for clarification.

2.3 EVALUATION TEAM

The team leader, Dr Russell Gasser (Humanitarian Technology Consulting Limited), was supported by Dr Robert Keeley (RK Consulting). Members of the former EUDEM2 project team at the Free University of Brussels (VUB) reviewed relevant sections of the report.

2.4 DOCUMENT RESEARCH AND REVIEW OF WEB SITES

The Mine Action Standards and the Technology programmes both have publications available, and a representative sample of publications was selected. The IMAS themselves are too large a set of documents to include in their entirety for the reading for this evaluation.

The Web sites for these two programmes were also examined in some detail – there is a dedicated Web site for Mine Action Standards as well as the GICHD Web site and some relevant sections of the UNMAS Web site .

Formal published reports (e.g. activity reports) and other internal GICHD documents concerned with the administration and management of the two programmes were also studied.

³ Many institutions and organisations insist on the use Project Cycle Management (PCM) techniques, including, for example, the European Commission. While a Project Cycle approach is certainly not the only method, it appears to be an appropriate and rigorous methodology on which to base this evaluation.

A list of the key documents used in this evaluation is included as Annex B.

2.5 THE ANNUAL IMAS REVIEW BOARD MEETING

The evaluation team leader attended the annual IMAS Review Board meeting on 18 March 2008, and was able to discuss a number of key issues with several Board members.

2.6 INTERVIEWS

A number of “key respondents” were identified and had face to face meetings with the evaluation team, or where this was not possible, discussions by phone. The key respondents included current and former GICHD and UN staff.

The evaluation team leader attended the eleventh International Meeting of Mine Action Programme Directors and UN Advisors, held from 13th to 18th April 2008, in Ljubljana, Slovenia and Šibenik, Croatia. Interviews were conducted with a wide range of people attending the meeting including: UN staff and advisors, national staff from mine affected countries, NGOs, commercial equipment manufacturers and operators, and donors and donor representatives. The balance of interviewees was chosen to give a primary focus to national programme staff and to cover the range of types of organisation who are present on the IMAS Review Board.

The guided interviews were conducted in depth, typically from thirty minutes to an hour in length, in order to explore the thinking behind the answers to a standard set of questions. The aim was to achieve a good understanding of the responses of the people interviewed, and the underlying causes for these responses, and not simply seek the maximum number of interviews.

A list of all interviewees is in Annex A.

2.7 QUESTIONNAIRES

In 2007 questionnaires sent out via the Internet and e-mail were used during the evaluation of mine detecting dogs and mine risk education, in order to contact a wider range of people than was possible with in the interviews. Questionnaires were again considered for the Mine Action Standards and Technology programmes evaluation. However, a decision was taken to focus on an increased number and range of interviews instead. The reasons were:

(a) in the case of Mine Action Standards, the evaluation is of the GICHD’s role only, not of the role of UNMAS and not of the standards themselves (see Terms of Reference and section 1, above.) Without the clear explanation and guided focus possible in an interview, there was a risk that respondents would principally be giving opinions about aspects outside the Terms of Reference;

(b) at the time of the 2006 mine action technology workshop (hosted by GICHD and UNMAS) a survey had been sent to relevant respondents in mine affected countries. Responses were obtained from over 50% of those contacted. While not the same as the proposed evaluation survey, there was some overlap in the questions and respondents. The results of the 2006 survey were included in the documents used for this evaluation. Another technology workshop is planned for the second half of 2008 and may again include a survey. Overloading busy field staff with too many repeated surveys on the same topic is likely to lead to a poor response.

3 Organisation of this report

This report has a common introduction, conclusions and recommendations, but the sections on findings and analysis are separated for the Mine Action Standards and the Technology programmes.⁴

The *findings* of each major section (Technology and Mine Action Standards) report are each presented in two parts. The first contains the findings of the different research methods i.e. the findings from the document and website review, from observation of the IMAS Review Board and from interviews. The subsequent section provides analysis based on the major stages used in project cycle management in line with the Terms of Reference (ToR) and the formulation questions in Annex C.

⁴ This separate format was requested by GICHD in response to the draft report.

4 Mine Action Standards

4.1 INTRODUCTION TO THE PROGRAMME

The GICHD Mine Action Standards programme contains several elements:

- Support for IMAS
- Training services covering an introduction to IMAS, the application of IMAS, and the development of National Mine Action Standards (NMAS). The NMAS support is the sole responsibility of GICHD, which initiated and manages the programme.
- Advisory services on the application of IMAS.
- Work on Technical Notes for Mine Action and technical advice and support for the standards themselves.

Full details of IMAS can be found on the Mine Action Standards Website at <http://www.mineactionstandards.org>. The GICHD website⁵ states: *The International Mine Action Standards (IMAS) project is managed by the GICHD on behalf of the United Nations. This consists of the review process for extant IMAS, the development of new IMAS and an "outreach" support capacity to assist in the design of national mine action standards. It is a continual process. The IMAS provide guidelines for national governments, Mine Action Centres and demining organisations. They then become the basis for National Mine Action Standards, and Standing Operational Procedures.*" The two organizations signed a Memorandum of Understanding in November 2007 outlining cooperation on IMAS and in other areas.⁶

The MoU states that there will be an IMAS Steering Group (ISG) and a Review Board. The GICHD is a member of both but provides the Secretariat for the Review Board only.

The IMAS consist of two main parts, the standards themselves and the accompanying Technical Notes.⁷

Since the start of the Standards project in 1999, the standards have grown into a substantial library of documents covering many aspects of mine action; details can be found on the Website. The GICHD has also developed a comprehensive set of guides for the development of National Mine Action Standards which are used internally but not published.

The GICHD has one staff member responsible for Standards and Stockpile Destruction, and a second person supporting the development of National Standards.

4.2 KEY ACHIEVEMENTS

4.2.1 Key achievements of the GICHD which influence both programmes

- The GICHD has developed very good relationships both with some of the most important

⁵ www.gichd.ch/operational-assistance-research/standards-quality-management/

⁶ The GICHD has considered that the agreement with UNMAS constitutes a mandate for their actions. However, "Mandate" has a specific meaning in UN terminology which refers to a decision of the General Assembly. To avoid confusion between "mandate" in the general sense and "Mandate" in the UN sense, neither term will be used in this report.

⁷ http://www.mineactionstandards.org/tnma_list.htm defines a Technical Note as follows: "A *Technical Note for Mine Action (TNMA)* is an advisory document designed to accompany or supplement an *International Mine Action Standard (IMAS)*, or act as an independent source of information. They provide principles, advice and information relevant to a specific IMAS or technical subject."

- donors and with some end users,
- The GICHD is widely regarded as authoritative and impartial, and a source of reliable information.
- The GICHD has made a significant contribution to publications and their distribution in both areas.
- The GICHD has been very active in the International Test and Evaluation Programme (ITEP) for Humanitarian Demining (including participation in the Board) and the European Committee for Standardisation (CEN) Workshop Agreement process, which has had a major impact on developing standards for testing. ITEP and CEN are highly relevant to both the Technology and the Mine Action Standards programmes.

4.2.2 Key achievements of the Mine Action Standards programme

- It is widely recognised that the GICHD has played an important role in developing IMAS and this is appreciated. IMAS are warmly welcomed by all sectors of mine action, including the commercial sector – reservations were expressed by many respondents about the number and length of the standards, but not about the need for IMAS or about the positive impact they have had.
- The GICHD has signed a Memorandum of Understanding with UNMAS covering *inter alia* Mine Action Standards.
- The GICHD has given important technical input to the development of most of the standards, and has drafted all the IMAS except the IMAS for mine risk education (MRE).
- The GICHD has drafted 14 of the TNMAS.
- The GICHD has been the driving force behind the translation of IMAS into languages other than English, and has produced the *Guide to IMAS* booklet (English only, 2006) which has been well received.
- The GICHD has led the publication of the IMAS information in a number of areas including maintaining the Website and publishing the CD version, and has provided training and briefings on IMAS to national authorities, militaries and others.
- The GICHD programme has supported the development of National Mine Action Standards in several countries and developed a comprehensive guide to developing NMAS.

4.3 FINDINGS FROM LITERATURE AND WEBSITE REVIEW

4.3.1 Publications

4.3.1.1 General remarks concerning both programmes

It became clear from the interviews that the publications were the point of contact and key output of the Centre for some field practitioners. The publications are a key achievement of the Centre and attracted a lot of positive comment in the interviews – to the extent that several respondents noted their preference for meetings in Geneva as it allows them to collect a supply of literature and CDs to take back with them.

Ordering paper/CD copies of publications from the Website is quite straightforward⁸ and free of charge.

The Centre has developed a distinguishable “house style” for publications, and the UN also has its own very clear style for official Websites and documents. A separate formal and

⁸ <http://www.gichd.org/gichd-publications/order-form/>

technical style is used to publish the IMAS and TNMA, which makes them recognisable but also serves to distinguish them from other activities of the UNMAS and GICHD.

In the last year, the GICHD has improved its monitoring of demand for publications from Website users and people ordering paper publications. This is a welcome improvement and will allow an improved service and give some feedback on the most demanded publications, which should be prioritised for translation.

4.3.1.2 Mine Action Standards publications

As of April 2008, the GICHD website and order form for paper documents reported the following publications and articles related to Mine Action Standards were available. Review of the technical quality of the content of publications is outside the scope of this evaluation.

PUBLICATIONS

1. *A Guide to the International Mine Action Standards* * (April 2006) (No. 43)
2. *CD: International Mine Action Standards (IMAS)* * - Issue 3 (2005) Note: Issue 4 was made available at the 11th UN Programme Managers' Meeting in April, but as of 1st May 2008 the Website was still waiting to be updated.
3. *International Mine Action Standards for Mine Risk Education - Best practice guidebooks* (November 2005)

* indicates that previous versions of the publication are also available.

ARTICLES

1. *International Mine Action Standards: Some Frequently Asked Questions and Answers* Article by Phil Bean published in Journal of Mine Action (2004)
2. *International Mine Action Standards - Future developments of personal protective equipment (PPE) standards* Article by Adrian Wilkinson published in the Journal of Mine Action 7.1 (Spring 2003)

All these documents are in English only except for the IMAS CD which includes all six UN languages: Arabic, Chinese, English, French, Russian and Spanish. A minor point is that the cover of the CD gives no clue that the disks contain far more than the IMAS in English. There are eight sections (Current and Draft IMAS, Translated IMAS, Support Tools, TNMA, CWA, Training services) and there is no indication that any language other than English is included except the list of contents states "Translated IMAS". At least the back cover should contain some indication of the various languages available *in the relevant languages and scripts*.

The need to translate the brochure "A Guide to the International Mine Action Standards" was mentioned by a number of interviewees. Analysis of which countries are most likely to want to develop national standards in the near future should guide this process; the West African demining centre in Benin was among the positive replies, which suggests a French version could be useful.

There is a need for a short, simple brochure (*which includes diagrams and other illustrations as well as text*) outlining the process of developing NMAS. Such a brochure could usefully outline the process, explain the relationship between IMAS and NMAS, describe the services offered by GICHD, and outline the commitments and support necessary from the country developing the standards. The contents of such a brochure could also be readily transformed into a series of web pages to allow a more interactive view of the NMAS process.

4.3.2 Websites

4.3.2.1 General remarks concerning both programmes

The evaluation team notes a number of improvements to the layout and content of the GICHD Website since the evaluation of MDD and MRE in 2007.

The site has a number of useful features built in, including the search facility, site map and the on-page listing of the hierarchical route to reach the page. However, some of the comments made in the 2007 evaluation about the GICHD MRE web pages also still generally apply to both the Technology and the Mine Action Standards pages:

“The web pages consist [almost] entirely of English language text. There is no use of any web features to assist the reader beyond text-based links to other pages of text. There are [almost] no diagrams or illustrations, and the links to the publications are also exclusively in English text. Essentially, this is a linear “printed words on paper” index and file system which makes no use of the extensive opportunities presented by web based technologies. The language and presentation are principally aimed at readers already familiar with the subject and who understand their needs.”

The written English still tends to be rather dense and complex. Even if full translation is not feasible, it should be possible to add at least menus and “navigation and download guidance” in a number of other Languages at key places on the website.

The PDF downloads of most of the printed materials are very large files and entirely beyond the download range of most dial-up modem users.⁹ It would be a significant service to users in remote locations to offer *text only* (ASCII text without formatting) versions of publications – stripped of the illustrations and artistic layout the file sizes will be very much smaller. While this goes against the desirability of a consistent “GICHD brand” that makes the documents stand out, it could offer a very significant benefit to some of the people who need assistance and have the most severe access problems. Such documents could be clearly identified as a special text only version with clear references to the original. The need to compromise the “GICHD brand” should be weighed against the potential increase in the use of the documents.

4.3.2.2 Mine Action Standards websites

In addition to information about IMAS on the GICHD website, there is also the dedicated Mine Action Standards website www.mineactionstandards.org. The Mine Action Standards website is in English with the International Mine Action Standards available for download in all six UN languages. There are, however, no links or guidance available in the six languages to help users reach the download in their own language. The GICHD could perhaps suggest that these links are introduced.

Many other websites link to the www.mineactionstandards.org site including the UN site www.mineaction.org, a number of other UN sites¹⁰ and organisations such as the James Madison University Mine Action Information Center, and CEN.

The rationale behind the use of both the GICHD and the dedicated www.mineactionstandards.org sites is clear to anyone who understands that IMAS is a joint project of GICHD and UNMAS. However, this may be far from obvious to new visitors and improved cross-linking and a brief explanation on each site would be very useful.

⁹ The ability to load many publications one section at a time is noted and is a useful feature.

¹⁰ e.g.: <http://www.un.org/issues/ngo/n-demin.html>, <http://www.un.org/issues/docs/d-demin.html>

A welcome inclusion on www.mineactionstandards.org is the “historical archive” section which includes current and past minutes of the Review Board meetings.

Also welcome, and to be found on both websites, are the National Mine Action Standards from a number of countries which can serve as models and useful guidance for the development of NMAS in further countries.

The IMAS secretariat monitors website usage. The results show about 2,000 unique visitors per month in 2007, an increase of about 20% from 2006. About 400 visitors (20% of the total) stayed for five minutes or longer, which indicates significant interest or downloading of information. This is a substantial amount of activity, and consideration should be given to more assistance for visitors with limited English language skills in the design and layout of the site. A total of nine Western European countries were among the top 25, along with Canada, Australia and Japan. Of the less commonly appearing countries on the list were Ukraine, China, Morocco, Brazil, Thailand and India. USA Educational (.edu) also made the Top 25 list.¹¹

4.4 FINDINGS FROM THE IMAS REVIEW BOARD MEETING

4.4.1 Introduction

The IMAS Review Board has a membership of up to 30, listed in the Memorandum of Understanding between the GICHD and UNMAS as: UNMAS (Chair), GICHD (Secretariat), UNDP, UNICEF, UNOPS, national mine action authorities, donors, commercial companies, international and national non-governmental organisations and individual members and specialists, as appropriate. Currently there are a number of vacancies. The Review Board meets once a year at Geneva.

The role of the Review Board (RB) is defined as:¹²

- *“To accept, or comment on, the IMAS review programme published by the Secretary of the RB.*
- *To respond to requests, from the Secretary or Chair, for comment and input into drafts for new IMAS, revision drafts of existing IMAS, voting procedures etc.*
- *To provide informed comment based on experience.*
- *To provide constructive comment proposing detailed new text or clear concerns when*
- *responding to requests for comment rather than general statements of opposition.*
- *To seek peer input as appropriate and if possible.*
- *To attend RB meetings.”*

The evaluation team note that the meetings are only a small part of the overall work of the Review Board; most of the work is discussion and comments on drafts, by e-mail.

4.4.2 GICHD and UNMAS – Terms of Reference of the evaluation

There are a number of issues regarding the efficient functioning of the Review Board where the GICHD has a material interest. The Centre not only supplies the secretariat but has also had a very significant technical input to IMAS, and has drafted almost all of the standards.

¹¹ Thanks to Faiz Paktian of GICHD for the usage data.

¹² For further information see the document “Management of IMAS” dated 13 April 2007, especially its Annex A. Available at http://www.mineactionstandards.org/IMAS_archive/Related/TOR%20for%20RB%20Final%203%20May%202007.pdf

The NMAS programme does not operate in isolation but is dependent on IMAS. The functioning and the strategic direction of the Review Board are, therefore, included in this evaluation and analysed from the point of view of the GICHD contribution being as *efficient* and *effective* as possible.

4.4.3 Composition of the Board and required qualifications

There is a recognized need to fill some of the vacant seats on the Review Board and to strengthen representation of mine affected countries. There is a *de facto* entry qualification of being able to work, and write, in English. Despite the strong support of the evaluation team for multi-language working wherever possible, this is one occasion where there does not appear to be any feasible alternative to working in English only. The volume of working documents is so large, and the need to participate in e-mail discussion so fundamental, that good English language skills have to remain a prerequisite.

Recruitment to the Review Board is currently undertaken on the basis of recommendations made by board members. A broader and more objective approach should be implemented; there may well be suitable candidates available who are simply unknown to the current board members. Vacancies could be publicized on websites, at conferences and through newsletters without compromising the integrity of the board. The GICHD should press for recruitment to be *actively* undertaken to bring the Review Board up to strength, and could actively seek candidates from its extensive contacts in mine affected countries.

One suggestion from the evaluation team is that GICHD could press for a representative of a country receiving support from the Centre in developing National Mine Action Standards to participate in the Review Board during the two to three years that the NMAS process is active. Other ideas could also be considered.

A representative of ISO was involved with the design and initial writing of the IMAS in the past, though the board does not currently include anyone with specific formal expert experience in Standards preparation and review. The evaluation team agree that this type of *technical expertise* is probably best added at the level of technical working groups developing standards and not at the Review Board level. Given the strong technical role of GICHD in providing input to the IMAS, some limited *formal training* on how to prepare standards documents for Centre staff working in this area, including staff working on NMAS, could be useful.

4.4.4 Scope and Purpose of the Review Board

The Review Board has a dual role of both technical discussion and also approval of standards. It is being forced into a third role, for which it is not well suited, of defining policy and strategy, because the IMAS Steering Group (ISG), as described in the MoU, has not met for a considerable time. The ISG comprises: UNMAS (Chair), UNDP, UNICEF, UNOPS, and GICHD. The lack of a clear strategy has a negative impact, which was evident during the Review Board meeting. For example, there was an entirely *ad hoc* approach to discussions of possible future standards without any strategic overview, and no attempt to develop an approach based on intentionally selecting areas where standards could add the greatest value or have the greatest impact in other ways. This is not to say that the work being done is without value, but there are limited resources which should be allocated strategically. The Review Board has a track record of extensive discussion of topics which make little overall difference to two of the stated aims of the GICHD – to make demining faster and more cost effective. There is no record of actions specifically aimed at identifying areas where IMAS could make the most contribution to *efficiency* and *cost effectiveness*. The GICHD is in the position that the resources it allocates to support the IMAS are not currently used as *efficiently* and *effectively* as possible.

It appears essential that the ISG, or another body capable of a *strategic and programme development role*, is re-activated as soon as possible.

The GICHD, as the major technical support to the IMAS process, has an interest in the good functioning of any technical working groups. The Guide to IMAS clearly states that “*The work of preparing, reviewing and revising the IMAS is conducted by technical committees, with the support of international, governmental and non-governmental organisations (NGOs). This process is coordinated by the Geneva International Centre for Humanitarian Demining (GICHD).*” *De facto* technical working groups have been formed for some of the more technical standards; this arrangement might well benefit from a more formal structure. Discussion during the Review Board meeting clearly demonstrated the limits and weaknesses of the current *ad hoc* approach to contentious technical issues. The GICHD could look at a more formal approach to organising technical working groups, and bring this to the attention of the ISG.

The MoU foresees “*the parties [UNMAS and GICHD] meeting regularly at a working level to determine the requirements and methodologies for the development of new IMAS. These meetings will result in the overall strategy and annual plan for the Parties.*” (emphasis added) These meetings should be held regularly and the minutes, or a report of the outcome, published as clear guidance for the Review Board and other interested parties.

4.4.5 Relationship of Review Board with other standards organisations

The Review Board meeting, and also the review of literature and websites, showed that the Review Board as a whole has a good working relationship with, and good understanding of, both the International Test and Evaluation Programme for Humanitarian Demining (ITEP)¹³ and the European Committee for Standardisation (CEN) with its process of CEN Workshop Agreements (CWA). The synergy between IMAS, CEN/CWA and ITEP appears to be very positive. It is beyond the scope of this report to detail the roles of the various organizations (full information is available on the relevant websites – GICHD, IMAS, and www.itep.ws). However, a clear explanation of the interactions and differences – based on *diagrams* as well as text - would be a very useful addition to the IMAS and GICHD websites.

4.4.6 The use of Technical Notes for Mine Action

The IMAS Website defines Technical Note as follows: “*A Technical Note for Mine Action (TNMA) is an advisory document designed to accompany or supplement an International Mine Action Standard (IMAS), or act as an independent source of information. They provide principles, advice and information relevant to a specific IMAS or technical subject. Although they use the same format as IMAS for consistency and ease of use, their status is different and they are advisory only, but based on the best available technical information.*”

The GICHD has been the driving force behind TNMAs. The evaluation team heard a number of suggestions from Review Board members that the increased use of TNMAs to specify technical details which might need regularly updating, could lead to shortening and simplification of the IMAS themselves, which could then focus more on general principles. The current debate on the use of visors or goggles for eye and face protection could be treated in a similar manner, with the Standard stating a requirement for an approved level of protection to be used and a Technical Note defining the current “state of the art.” As key author, the GICHD has an interest in promoting good quality and consistent TNMAs. The evaluation team note the substantial contribution made by GICHD staff in writing TNMAs and support its continuation.

¹³ ITEP is itself an active member of the Review Board.

4.5 FINDINGS FROM INTERVIEWS

A total of 25 detailed interviews were conducted, in addition to meetings with six GICHD staff and a number of follow-up contacts to verify specific points. The interviewees included staff of national and international mine action authorities and centres, UN field staff, commercial manufacturers and operators, policy and strategy specialists, and donors. A full list is included at Annex A. The selection of categories for interviewees was linked to the categories for the composition of the IMAS Review Board.

The key findings can be summarised as follows:

4.5.1 Issues affecting both programmes

4.5.1.1 Perception of the GICHD – access, support, partner selection

There was a divide between some organisations which have a close partnership with GICHD (and are generally satisfied or very satisfied with the support they have received) and organisations who found GICHD services hard to access or not addressing their needs (which were more critical). This result had also been found in the 2007 evaluation. The evaluation team notes the actions already taken in the last year to make the GICHD more accessible, and encourages further steps in this direction. The Centre sometimes works repeatedly with the same partners, and this was a particular cause of criticism. Continuity of action with a few partners with a good track record has to be balanced against giving more organisations an opportunity to develop a close relationship with the Centre and improve their ways of working as a result. The GICHD needs to be *seen* to be accessible to all, as well as to actually be accessible.

A further point that came to light this year was a call for more emphasis by the GICHD on supporting “small countries”, which have few resources and a mine/ERW problem that is not large enough to attract much support from elsewhere. At a national level, the problem may have an impact, and adding even modest external resources could make a relatively large difference. These countries are less likely to have full time UN field staff allocated, so do not always have a good knowledge of available resources. Even in-country advisors have so many different responsibilities that they may be stretched too thinly to be able to effectively access support from the Centre. Clearly the overheads of working with small programmes have to be considered as well in making a strategic decision, but there seems little doubt that the *entry barrier* is – unintentionally – higher for these countries and the Centre could take steps to mitigate this.

4.5.1.2 Perception of the GICHD – independence, transparency, commercial relationships

There was, once again, a great deal of respect expressed for the GICHD as an institution and especially for its perceived independence, even among critics of policies of the Centre. It is clear to the evaluation team that this is perhaps the greatest asset of the GICHD.

4.5.2 Interview responses: GICHD role in Mine Action Standards

The work on standards and GICHD’s important role in IMAS were both widely appreciated and warmly welcomed. The support for developing national standards was also welcomed by those who had worked with the Centre. The individual GICHD staff working on standards attracted some very positive comments for their professionalism and dedication. The dual-role of IMAS as both a default standard in its own right and also as the framework for developing NMAS led to some misunderstanding about the underlying purpose of IMAS, and

also criticism that the two roles are different and should be addressed differently. Countries with few resources welcomed the possibility of using IMAS “off the shelf” until a national standards process is complete (see comment on “small countries” in section 4.5.1.1 above).

The translation of IMAS into five further languages was welcomed, but there were calls for the Centre to translate additional relevant documents into languages other than English. The overall progress that has been made by the GICHD in translation in the last year is noted by the evaluation team, and was welcomed by respondents.

The 2007 evaluation report noted that there might be a role for the Centre in identifying “unofficial” translations that have been made and creating a list of who has translated which documents. The Centre informed the evaluation team that they maintain a list of unofficial translations of GICHD publications, though it is not published on the Website and no respondents were aware of it. It is not known if this list includes any documents relevant to this evaluation. The list of which documents have been translated into which language must be published on the Website, and links from the download pages of relevant documents developed, if it is to have an *impact*.

4.6 MINE ACTION STANDARDS: GICHD STRATEGY

4.6.1 Introduction and Principles

The GICHD has a published strategy, which has steadily been developed¹⁴ and which is now a comprehensive and detailed document. The latest version, the strategy for 2006 to 2008, defines a set of *principles* and *goals*, and within each goal it lists *operational objectives*.

4.6.2 Operational Objectives

The strategy states that “*The Centre’s operational objectives outline the specific contributions it will make to achieve progress on the strategic goals. These have been formulated as measurable objectives within the three-year time-frame of the Strategy.*”

The operational objective most relevant to mine action standards is:

3.1 Standards are made available and will be used by national authorities and implementing partners.

- International Mine Action Standards (IMAS) are developed, reviewed, revised and disseminated on behalf of the United Nations.
- Assistance and training will be provided to national authorities and implementing partners.
- National authorities will be enabled to write and apply their own national mine action standards.

4.7 MINE ACTION STANDARDS PROGRAMME DEVELOPMENT

4.7.1 Introduction

The GICHD strategy (see previous section) places little emphasis on the *Identification* phase, and presents the concept of moving directly from the strategy to the annual activity planning. For example, operational objective 5.2 states “Projects and programmes will be implemented according to annual action plans, containing activities, aims, performance targets, time frames and budgets.” Project Cycle Management uses two further steps between *strategy* and

¹⁴ Available at <http://www.gichd.org/about-gichd/strategy/>

implementation: identification and formulation. It is not clear how a multi-year programme can be executed effectively without multi-year programme level planning, and the evaluation team consider that the weakness of the Identification phase is evident in the Mine Action Standards programme. There is apparently no clear, written over-view of the specific goals the programme intends to achieve in the next three or five years, and how it intends to design projects to achieve these goals. Single-year activity plans alone cannot support this multi-annual approach effectively, and the result is a notable gap between the well described strategic objectives and the work being planned on an annual activity basis. Addressing this is of highest importance.

Recent widespread interest in Land Release confirms what is already very well known: the large-scale improvements to “outputs” in mine action will not come from a 10% or 20% improvement to buried mine detection, but from wider application of “Land Release” and similar techniques that can offer a very substantial reduction to the area to be painstakingly cleared. It follows, in terms of standards, what is most urgently needed are the appropriate Standards to ensure the correct application of these techniques to address the difficult issue of risk management. Further standards in areas where the possible *impact* on the cost-effectiveness of demining operations is much lower cannot be regarded as a priority. While the application of *impact* as a selection criteria for IMAS is not a direct responsibility of the GICHD, a similar use of *impact* criteria in the allocation of technical resources in support of IMAS, and in the development of Technical Notes for Mine Action would appear to be within the scope of the Centre. Significant investment of resources in repeatedly fine tuning standards, which make little difference to the overall mine action outcome, should be avoided. Yet this currently consumes an important part of the resources the GICHD devotes to supporting the IMAS.

For NMAS, itself a process with a longer duration than one year, the need for a multi-year approach is evident. The issue of focussing on the key standards which are the most useful for a specific country should also be addressed and the next phase in the project cycle, *formulation*, should be driven by analysis of how to optimise the *impact* of NMAS while also maintaining *efficiency*.

4.7.2 Collaboration between NMAS and UNDP

Work on National Mine Action Standards forms part of United Nations Development Programme (UNDP) support to capacity building in some countries. Unless there are specific reasons related to the division of responsibilities for mine action within the UN system, occasional formal contact between the NMAS staff of the GICHD and UNDP staff could be useful in ensuring good collaboration in selection and definition of the NMAS programme and the UNDP capacity development programmes. There is also a potential benefit for the two organisations in sharing planning information – at present this relies on informal contact. Such formal contact might be possible as a side meeting while staff are attending conferences.

4.7.3 Long term support to ITEP

The IMAS Review Board meeting provided the evaluation team with a chance to discuss the longer term future of the ITEP project with the Director of ITEP. It had been recognized by some respondents to this evaluation that ITEP might not continue on the current scale indefinitely (other respondents did not agree with this suggestion). The Director acknowledged that changes would eventually arise, and that ensuring the continuity of the “information base” of ITEP would be a major concern in future plans. Clearly, the GICHD is one of a very few organisations – perhaps the only such institution in Europe – that could consider maintaining this knowledge base. The Director made his position clear that – if ever

the situation arose that ITEP was seeking a long term repository for its information – then the GICHD would be very welcome to bid for such a role on equal terms with other candidates.

Developing a multi-annual proposal, based on the techniques employed in the *identification* phase of Project Cycle Management would appear to be a necessary foundation for such a bid. The evaluation team recommends the GICHD develop the outline planning for such identification of a future ITEP bid as a medium term task, and one which could be used to enhance the use of PCM in a wider context in the Centre.

4.8 DESIGNING NATIONAL MINE ACTION STANDARDS ACTIVITIES TO ACHIEVE PROGRAMME GOALS

The weakness of the *formulation phase* of the project cycle is also evident for the NMAS support work, however the consequences are not severe. The work has been largely self-defining in scope and content, and, so far, there have been sufficient resources available to meet all requests. It is, however, unsatisfactory to plan the multi-year interventions required for NMAS development without formal multi-year programming.

Despite the GICHD being in the fortunate position of accepting all requests for assistance, a clear and transparent list of criteria for accepting a country as a recipient of support in developing NMAS would be a useful programming and scheduling tool. Part of this is already in place. There are two parts to this: the first is a list of what the GICHD offers (which is already on the website) linked to what the national authorities must be prepared to offer on their side. The second part is the criteria that will be used to accept an application (or decide between two applications if demand should one day exceed resources). These criteria form an integral part of the formulation of the programme to assist in clarifying *why* the GICHD should use resources and what the minimum standards a partner must achieve to be considered for support in developing NMAS.

4.9 IMPLEMENTATION ISSUES, NATIONAL STANDARDS PROGRAMME

The programme is in place and the methodology appears sound. Interviewees who had been involved in developing national standards expressed satisfaction. Putting examples of national standards from a range of countries on the website as is welcomed.

The large and comprehensive guide which was written in 2004 is now in need of updating and revision to cover changes in IMAS, and in mine action in general, over the last four years. The evaluation team strongly supports a comprehensive review, with an aim to publishing a revised version in 2009, five years after the original.

5 Mine Action Technology

5.1 INTRODUCTION TO THE PROGRAMME

The GICHD website describes the technology programme as follows:¹⁵

“The GICHD has been engaged in many aspects of technology since its inception, primarily as an interface between the field users and the scientific communities. This is done through the development of operational needs statements, participation in technical conferences, and provision of advice to equipment researchers, developers and users. Emphasis is placed on mature technology that could be fielded in the near term and demonstrates that it has a practical application to demining operations. Priority is being placed on the assessment of current technologies, monitoring technologies applicable to demining, assisting in the introduction of appropriate technologies to the field, and evaluation of the impact of technology on Mine Action Programs.”

Technology is a wide ranging topic which has significant overlaps and interfaces with other programmes of the Centre. Parts of the Mine Detection Dogs, Personal Protective Equipment (PPE) and Mechanical Demining programmes are also “technology.” This report will focus on the *detection technologies* and *test and evaluation* which form the core of the technology programme. The Information Management System for Mine Action (IMSMA) is also mine action technology, however, for the purposes of this review, IMSMA is *not* included as it is run as a separate programme at the GICHD and a separate evaluation of the IMSMA programme is foreseen.

From November 2003 to January 2007 the GICHD had a specialist in mine action technology as a staff member, who focussed on detection technologies and test and evaluation (T&E).

5.2 KEY ACHIEVEMENTS

5.2.1 Key achievements of the GICHD which influence both Technology and Mine Action Standards

The key achievements applicable to both evaluation areas are reported in Section 4.2.1, page 11.

5.2.2 Key achievements of the Technology programme

- The GICHD has published a series of regularly updated and Metal Detectors and PPE Catalogues (latest edition 2007), and a Guidebook on Detection Technologies and Systems for Humanitarian Demining (March 2006) and a Mechanical Demining Equipment Catalogue (latest edition 2008). These were widely reported as useful (though there were also comments about the need for more price information¹⁶).
- The GICHD has made a significant volume of information about technologies available on-line, including a large part of the EUDEM2 database, which it took over at the end of the EUDEM2 project.
- The GICHD has launched, together with UNMAS, a regular Technology Newsletter.¹⁷

¹⁵ www.gichd.org/operational-assistance-research/clearance-technology/technical-applications/overview

¹⁶ The issue is not a lack of interest by the GICHD in supplying price information but the unwillingness of many manufacturers to provide it to the GICHD.

¹⁷ The idea for such a newsletter was proposed at the *EUDEM2-SCOT Special Session on Information Sharing Initiatives* in Brussels, 17/9/2003, and it was GICHD who led the subsequent implementation, with the first edition appearing in November 2004.

- Together with UNMAS, in February 2006 the GICHD hosted a successful technology workshop for potential and current end-users. The results provide valuable input for the GICHD technology programme to use. A further event is planned for September 2008.
- The GICHD has made a significant contribution to test and evaluation (T&E) and Standards development for a wide range of demining equipment, including PPE, mechanical demining and detectors. This has included participation in the International Test and Evaluation Programme for Humanitarian Demining (ITEP), the European Committee for Standardisation (CEN)¹⁸ and similar bodies.
- The GICHD has assisted in running in-country technical testing of equipment such as metal detectors. This participation was enthusiastically supported by representatives of the countries involved, but is not well known otherwise.
- The GICHD has been a regular participant in meetings and conferences on mine action technology and its application in Europe and elsewhere.
- The GICHD has worked with a few manufacturers to improve the design of equipment for mine action.

5.3 FINDINGS FROM LITERATURE AND WEBSITE REVIEW

5.3.1 Publications

5.3.1.1 General remarks concerning both programmes

The general remarks applicable to both evaluation areas are included in Section 4.3.1, page 12.

5.3.1.2 Mine Action Technology publications

As of April 2008, the GICHD website and order form for paper documents reported the following publications and articles related to Mine Action Standards were available. Review of the technical quality of the content of publications is outside the scope of this evaluation. The Technology Newsletter is considered under “websites” below.

Technology – General and Detection:

PUBLICATIONS

1. *Guidebook on Detection Technologies and Systems for Humanitarian Demining* (2006).
2. *Metal Detectors and PPE Catalogue 2007* * (February 2007)
3. *Mine Action Equipment: Study of Global Operational Needs* (June 2002)

ARTICLES

1. *Systematic Test & Evaluation of Metal Detectors* Article by Noel Mulliner, Phil Bean and Francois Littmann published in Journal of Mine Action (December 2003)
2. *Scientific contributions to demining technology: beliefs, perceptions and realities* Article by Ian McLean published in Journal of Mine Action (December 2003)
3. *CEN Workshop Agreement - CWA 14747 - Test and Evaluation for Metal Detection* (June 2003)
4. *Mine Action Technology Now and In The Future: Is it realistic to expect great leaps forward in technology?* Article by Havard Bach published in the Journal of Mine Action 6.1 (June 2002)

Mechanical Technology for Demining:

¹⁸ For example, CEN Workshop Agreement 14747 notes:

“The following organisations have given a consistent and active support to the project: [...] Geneva International Centre for Humanitarian Demining (GICHD).”

PUBLICATIONS

1. *Mechanical Demining Equipment Catalogue 2008* *(January 2008)
2. *A Study of Mechanical Application in Demining* (May 2004) (No. 25)

ARTICLES

1. *Throwing out mines: effects of a flail* Article by Ian McLean, Rebecca Sargisson, Johannes Dirscherl, Havard Bach (November 2005)
2. *Machines Can Get the Job Done Faster* Article by Alexander Griffiths published in *Journal of Mine Action* (November 2004)
3. *CEN Workshop Agreement - CWA 15044 - Test and Evaluation of Demining Machines* (July 2004)
4. *Mechanical Application in Demining: Modernising Clearance Methods* Article by Alexander Griffiths and Leonard Kaminski published in *Journal of Mine Action* (December 2003)
5. *The GICHD Mechanical Application in Mine Clearance Study* Article by Kaminski, Griffiths, Buswell, Dirscherl, Bach, van Dyk, Gibson published in the *Proceedings of EUDEM2-SCOT - 2003*, volume 1, 335 - 341 (September 2003)
6. *Use of Mechanical Equipment in Mine Clearance* Article by Johannes Dirscherl published in the *Journal of Mine Action* 7.1 (Spring 2003)

* indicates that previous versions of the publication are also available.

It is understandable that the English language publications dominate in this technical area, especially for the catalogues and CWA documents. Assuming that technical personnel can at least read equipment specifications in English appears reasonable, given the resources required to translate and check these documents. However, any future publications in the area of guidance for field staff or national staff on technology should be considered for translation.

5.3.2 Websites

5.3.2.1 General remarks concerning both programmes

The general remarks applicable to both evaluation areas are included in Section 4.3.2.1, page 14.

5.3.2.2 Mine Action Technology website

The GICHD website has an entry point of “Clearance and Technology” which then leads to “Technical Applications” and the Technology Newsletter. The unclear boundary between Clearance, technology, mechanical and manual methods and their inter-relationships would be a good topic for a web page (or a set of pages) using diagrams as well as text, and might assist visitors in understanding where technology fits in to Mine Action.

The Technology Newsletter is a joint publication of the GICHD and UNMAS. The Technology newsletter has been published seven times since November 2004, a twice per year frequency. Publication is in English only. Previous editions, which form a useful resource, are available from the GICHD website and the UNMAS website.

5.4 INTERNAL DOCUMENTS OF GICHD (DOCUMENTS OTHER THAN PUBLICATIONS)

5.4.1 Planning and reporting

Project level reporting is in place with an annual action plan and an activity report – but the Project Cycle stages between the Strategic Objectives and Annual Activity Plans and reports appear to have no documentation. The absence of documents regarding both process and specific goals of the technology programme, coupled with staff turnover, leave a substantial

void in the evaluation process¹⁹. It is not possible to evaluate whether a programme met its programme and project level goals when the goals are not stated and the activity reports do not contain information as to *why* specific activities were selected.

The current “Concept paper for annual work plan 2008 Technology Officer,” reproduced in Annex E to this report, is an activity list (principally attending meetings and conferences) which does not contain information as to why these meetings have been selected, and what aims will be achieved by attending the meetings. It is not possible to evaluate the *relevance* nor the likely *effectiveness* of the selected activities in the absence of information about the planned goals.

The GICHD Strategy Operational Objectives include:

5.2 Projects and programmes will be implemented according to annual action plans, containing activities, aims, performance targets, time frames and budgets. Where appropriate, they will include monitoring and evaluation components. Country overviews will be developed in order to best use internal resources and synergies. (Emphasis added).

The Technology work plan must be expanded to include all this information.

5.4.2 Selection criteria for Technology support

Documentation of selection or evaluation criteria or processes for deciding whether to agree to a particular request for support in the field of mine action technology, or a proposal for participation or collaboration, is not at present developed. It is not clear that the underlying criteria have been formally developed. The basic criteria should be documented and then published to inform organisations making requests for support. This should also provide a useful input to scheduling. Those who seek to access GICHD services for support should have access to a list of objective criteria on which any application will be judged, and clear written guidance on what is expected from them, what is offered and how selection is made. Where the GICHD participates in for a and processes like ITEP and CEN, the goals of participation should be clear. This whole area needs urgently addressed. Publishing criteria does not require confidential information to be published, it aims to inform partners about the GICHD in order to optimise access and reduce any possible misunderstanding on either side. Historically many people have expected services which the GICHD does not offer and, in interviews, misplaced criticism was heard from those who had unrealistic expectations. Recently there has been an improvement in the clarity of the GICHD’s brochure *Training and Advisory Services*, and in some pages of the website, but more remains to be done. Clear criteria could be a useful asset to support GICHD staff who are taking a proactive role in promoting the Centre’s services.

5.4.3 Optimising Impact

Optimising *impact* requires objective analysis to ensure that the resources are being allocated not merely where they will make a difference, but where the greatest difference can be achieved. There is a particular lack of documentation in support of the approaches such as cost benefit analysis, or cost effectiveness analysis, for the programmes. This appears to be the case for projects as well as programmes.

Overall, there are a number of key documents which could be valuable in supporting a formalised programme-level planning and evaluation process, but which have not yet been written. Despite the heavy workload of staff at the Centre, ways must be found to give higher

¹⁹ The former GICHD Technology Officer, Al Carruthers, has returned to Canada so a direct interview was not possible. Even lengthy phone interviews are not as useful as face-to-face meetings in the evaluation process.

priority to such routine – but important – tasks and to support the current process of moving away from activity based programming towards a strategy-driven approach.

The large jump from *strategy* to *annual workplan* was noted in the 2007 evaluation of MDD and MRE and remains to be addressed in Technology. The evaluation team considers this to be a task of the highest priority.

5.5 FINDINGS FROM INTERVIEWS

A total of 25 detailed interviews were conducted, in addition to meetings with six GICHD staff and a number of follow-up contacts to verify specific points. The interviewees included staff of national and international mine action authorities and centres, UN field staff, Commercial manufacturers and operators, Policy and strategy specialists, and Donors. A full list is included at Annex A.

The key findings can be summarised as follows:

5.5.1 Issues affecting both Mine Action Standards and Technology programmes

The remarks applicable to both evaluation areas are included in Section 4.5.1, page 18.

5.5.2 Interview responses: GICHD role in Mine Action Technology

5.5.2.1 Perception of the GICHD – independence, transparency, commercial relationships

There was, once again, a great deal of respect expressed for the GICHD as an institution and especially for its perceived independence, even amongst critics of the Centre's policies. It is clear to the evaluation team that this is perhaps the greatest asset of the GICHD. There were some serious concerns raised about how little is *known* about the nature of the relationship between the GICHD and commercial companies²⁰. The issue was not that these relationships themselves are a problem, but that the relationships are unknown and therefore the subject of speculation and, at times, innuendo.²¹ Greater openness and, especially, clear guidelines which are published for everyone to see, would appear to be necessary when the GICHD is working directly with the commercial sector.

The evaluation team found that some manufacturers can be over-enthusiastic in promoting their relationship with the GICHD for commercial purposes (in itself a reflection of the authority of the Centre). Comments in interviews showed that this can cause (i) ill-feelings among competitors that perceive favouritism even when none is there and (ii) – perhaps more serious – a perception among some end users that the product must be especially good as it is somehow endorsed by the Centre, even though such an endorsement has been specifically avoided. Once again, clear criteria, made available to all, could help resolve these issues of false perceptions.²²

²⁰ Interestingly, a commercial company which had been closely involved in projects with the GICHD was among the strongest critics of the current practice of non-disclosure.

²¹ This may reflect a view that the commercial world can be ruthless and some commercial partners have commercial interests at heart when dealing with the GICHD, so a certain distance should be maintained.

²² The key issue appears to be that any criteria are known, constant and public. A comparison can be made with criteria for tendering for contracts: a bidder might not agree with all the conditions but would accept them if they are clear, if they applied to everyone and were published for all to see.

5.5.2.2 Equipment advisory activities

Technology users repeatedly stated their need for support in choosing the most appropriate solutions and looked to the GICHD for information and recommendations. The issue of equipment recommendation is discussed in detail later in this report and Annex D. It is a particularly sensitive issue since the amounts of money for equipment purchase can be significant. In interviews, national staff generally called for shortlists of suitable technologies and products with guidelines as to how to make the final selection, rather than a single recommendation, although there appear to also be a few requests from some mine affected countries for very specific recommendations including the exact brand and model of equipment. Two respondents came forward with hearsay allegations of GICHD expressing an unfair “brand preference” – neither was willing to substantiate the accusation in writing.

Price information and guidelines on how to purchase or contract equipment were also sought. Several comments were made (some quite strongly) that the equipment catalogues would be significantly more useful if prices were included. It is noted that the GICHD requests price information, but some manufacturers do not respond.

While a visiting expert team from the Centre will have good contact with national staff at senior management level, there were several respondents who stated emphatically that this type of contact did not result in any real appreciation of requirements of operators in the field.

5.5.2.3 Test and Evaluation

Interviewees who had benefitted from GICHD assistance in equipment trials were very appreciative of the support they had received and the quality of the work done. Apart from this group, the extensive work of the Centre in supporting trials, and also in assistance to developing test and evaluation, was largely unknown to interviewees. This is in direct contrast to the near universal awareness that the GICHD is involved in the development and review of IMAS. No one commented on the reduction in support to these aspects of the Technology programme since the ending of the technology officer post, but this should not be taken as meaning that the support work is either unimportant or lacks *impact*. The value of the work has to be determined at a strategic level and not simply by interviewing end users. Standards and T&E are two areas where there can be a delay between the actual work and its impact.

5.5.2.4 Language issues

Language issues appear to be less of a barrier in technical documents than in many other areas – “technical English” is a widely understood language and the absence of translated technical documents did not cause concern.

5.6 TECHNOLOGY: GICHD STRATEGY

5.6.1 Introduction and Principles

An introduction to the overall GICHD Strategy is given in section 4.6.1, page 19.

5.6.2 Operational Objectives

The GICHD operational objectives most relevant to mine action technology are:

- 1.2 Safe, appropriate and cost-effective techniques, technologies and best practices for mine action will be made available and utilised by programmes in the field.
- 2.1 Research will be conducted in cooperation with field actors to identify and formulate practical solutions to current and emerging problems in mine action.
- 2.2 Studies will be completed that document how different mine action programmes have addressed common problems, and generate valid and reliable findings concerning best practices.
- 2.4 An evaluation and best practice data-base will be developed and maintained.
- 2.5 Mine action decision-makers will be provided with a comprehensive range of practical options for learning about technical solutions, best practices, and lessons learned. These will include field demonstrations, workshops, operational handbooks and guides, software tools, and outreach activities delivered by the GICHD. Where feasible, products will be provided in the local language of mine-affected countries.
- 2.6 Managers and researchers from other mine action partners will be invited to participate actively in both regular and ad hoc fora, and virtual networks, provided by the GICHD. This will allow them to exchange and discuss information, and keep abreast of developments.
- 5.2 Projects and programmes will be implemented according to annual action plans, containing activities, aims, performance targets, time frames and budgets. Where appropriate, they will include monitoring and evaluation components. Country overviews will be developed in order to best use internal resources and synergies.

The Operational Objectives are wide ranging and appear unrealistic in the light of the available resources; this strongly indicates a need for strategic prioritisation.

The evaluation team notes the identification in the Operational Objectives of “Mine action decision-makers” in section 2.5, as this is a key target group involved in technology take-up. The evaluation team welcomes this clear description which is more precise and useful than “End Users” or “Stakeholders.”

5.7 TECHNOLOGY PROGRAMME DEVELOPMENT (“IDENTIFICATION”)

5.7.1 Introduction

The GICHD strategy places little emphasis on the *Identification* phase, and presents the concept of moving directly from the strategy to the annual activity planning. The evaluation team considers that the weakness of the *Identification* phase is evident in the Technology programme, which lacks a coherent, written overview of (a) a programme design to achieve the three year strategic goals, and (b) how the results of the programme will be measured to ensure that the goals have been reached. Addressing this need for programme design and monitoring is considered to be of the highest importance.

In the Technology programme there are finite and limited resources to be applied to address the key problems and needs, and the Operational Objectives are highly ambitious. The Identification phase is used to design the programme to achieve the maximum *impact* with the available resources, and to generate *sustainable* results (in accordance with strategic principle 3: “[...]place emphasis on local ownership and capacity building.”)

Identification is an essential step in ensuring that the projects needed to develop the solutions to the technology problems with the greatest long term importance are given sufficient priority in the face of urgent issues from the field with far less impact.

5.7.2 Mine Action Technology – topics out of scope

An area of technology which has already demonstrated a significant contribution to efficiency is improved management of mine action by the use of dedicated Geographic Information Systems, Databases, and other computer based management tools. These have been supported by the adoption of new and more efficient ways of working. A review of IMSMA is outside the scope of this report and the GICHD is likely to commission a separate evaluation of IMSMA in the near future.

A further contribution has been made by new technologies not specifically designed for humanitarian demining, but which can be used to good effect: Handheld global positioning system tools (GPS), communications equipment like satellite phones, and satellite image analysis, etc. Again, these are essentially out of the scope of this evaluation. However, the evaluation team notes that there might be value in identifying the best equipment used by field practitioners (e.g. for hand-held GPS) and publishing information so that others can benefit. This could be either as a formal Catalogue in the style of the existing publications, or more informally on the website. It might be worth considering as a feedback session for the joint GICHD-UNMAS Technology workshop later in the year.

5.7.3 Mine Action Technology – issues in Programme development

The link between the desired mid to long term outcome and the activities has not been clear, and there appears to be little definition of what the programme is trying to achieve on a multi-annual basis. This is not to say that (i) there was no *impact*, and (ii) that the staff involved did not work hard – it is clear that the activity level was high and a great deal was done. However, in terms of this evaluation it is clearly unsatisfactory that there are no documents which define the multi-annual goals. This is particularly important for technology as it interfaces and overlaps with so many other programmes of the GICHD. The GICHD has made significant contributions to the ITEP and CWA processes, but (i) there is no clearly stated rationale (in a planning document) for doing so, indicating what the strategic benefit will be in three to five years, and (ii) CWA processes take longer than a year and participation cannot be adequately managed in terms of single year commitments. The development of such a multi-year programme seeking to maximising the *overall* benefit for mine action, rather than addressing the most urgent issue first, is a high priority.

There is as yet no clear and documented decision process for deciding the relative allocation of resources to different areas within the Technology programme, including: support to test and evaluation; support to field deployment; monitoring of research and new technologies; training national staff; receipt of training by GICHD headquarters staff; financial and contractual aspects of technology uptake; and other activities. Standard techniques can be used to address this, a number of standard planning approaches are available, and Project Cycle Management (PCM) is only one of several possibilities, but one that would appear to be highly appropriate. Staff should be trained in the use of PCM – or similar - techniques and perform a rigorous analysis and planning activity at the *programme level* before identifying activities.

5.7.3.1 Communication.

Communication from field practitioners at present relies, in most cases, on vertical transmission to a management or director level in their organisation, then to the GICHD, and then the busy GICHD staff disseminate the information to other organisations who must in turn relay it to their field staff.

Some interview respondents welcomed the concept of a *horizontal* exchange of ideas by staff, instead of a *vertical* approach where all new ideas are brought to the top of their hierarchy by staff of the Centre. The “horizontal” approach puts an emphasis on facilitating direct communication among practitioners. It is no longer possible for one person to cover all aspects of mine action technology, so specialization is inevitable and it appears to be better to put individual specialists in contact with each other than to use a third person as intermediary. Bringing together the participants for the technology workshop in 2006 and facilitating their direct interaction may have been an important factor in the success of the event. GICHD staff are already very busy and it appears to be a more productive use of their time to facilitate an exchange of information than to act as messengers.

Field visits by national technical staff to other mine affected countries facing similar problems, or to countries where equipment to address these problems has already been purchased, could be a potential method for improving communication. Support for direct e-mail contact or possibly an internet forum for contact between field practitioners could also be considered. The GICHD should seek ways to establish and support such direct communication which releases them from the role of being the messenger who has to be actively involved in all communications. A database (even if incomplete) of technical personnel from different countries, and different organisations, linked to what equipment has been purchased by those countries/organisations, might be a start. Such a database probably should not be in the public domain, but its existence could easily be announced through such media as the Technology Newsletter, even if access is restricted.

5.7.3.2 Activities already undertaken in support of programme development

In February 2006 the GICHD and UNMAS organized a joint technology workshop which was evaluated as highly successful. This workshop directly addressed part of the GICHD’s Operational Objective 2.5 “Mine action decision-makers will be provided with a comprehensive range of practical options for learning about technical solutions, best practices, and lessons learned.” A full report of the workshop is available on the GICHD website.²³ The summary presents a number of conclusions, with a strong emphasis on programming issues, which are presented in the text box below.

These conclusions should be used as an important input to the *identification* of the GICHD Technology programme.

²³ www.gichd.ch/fileadmin/pdf/technology/Technology_Workshop_2006/Technology_Workshop_Feb06_Proceedings.pdf

Workshop Summary UNMAS GICHD Technical Workshop, 15–17 February 2006

[...]

There were five themes that were heard throughout the workshop:

1. Many participants were satisfied with most of the technology being offered today. The real problem was to get enough of the appropriate technology into their program to make a difference. The economic reality within demining organizations is often the limiting factor on why more new technologies are not being introduced into programmes.
2. Many users tend to look only at the technology and underestimate the effort required to bring a new technology on line. Factors such as training, life cycle costs, modifications to an organizational structure and maintenance programme and rewriting of SOPs, must all be adequately planned and effectively implemented. This must be done before the benefit of high cost and complex technologies can be fully realized.
3. There is a growing realization that many programmes can benefit from new technologies such as the use of demining machines. Those programmes that are adaptable, well-managed, and have a clear plan will benefit the most from new techniques and new equipment.
4. Sharing of experiences and provision of expert advice will go a long way toward reducing the risk of the introduction of new methods and equipment into the field.
5. There is a lack of detailed information available to convince operators of the advantages of using machines and new technologies effectively. In addition there is an apparent lack of retention of what information is out there already. The solution is a continued effort to make information publicly available and easily readable.

These results appear to have had little impact on, for example, the “Concept paper for annual work plan 2008 Technology Officer.” The workshop could have a very useful input to project *Formulation* (the next step in the project cycle).

**5.8 DESIGNING TECHNOLOGY ACTIVITIES TO ACHIEVE PROGRAMME GOALS:
“FORMULATION”**

5.8.1 Advisory services

The evaluation team found considerable enthusiasm from national staff, the GICHD and UNMAS for some sort of “Technology Advisory Service” to recommend current technology solutions to end users. The proposed model, which is already used to some extent, appears to be based on the concept of an expert team visiting a country to undertake an appraisal and make recommendations, as well as a service of answering questions by mail, e-mail and telephone. The overall goal appears two-fold (a) to promote the uptake of current mine action technology in country and (b) to assist national staff in selecting the right equipment. This activity does not appear to be fully supported by a clear strategy or specific programme goals.

The evaluation team considers that this is a difficult issue and studied it in some detail. Annex D contains detailed further information. Despite the enthusiasm for some sort of advisory service the evaluation team remained convinced that the current approach has some very significant drawbacks and cannot support the current approach. On the other hand, an approach which would take into account the identified need for an advisory service based on technical and cost-effectiveness analyses, backed by full information gathering to ensure that

choices were not simply based on familiarity and the knowledge of the individuals concerned, would involve a very considerable increase in resources.

One of the key issues is the difficulty in obtaining price information and in preparing cost-efficiency analyses. Recommending one piece of equipment as “better” than another without considering either purchase price or running costs is not acceptable. All mine action programmes have to work within their budget, and accepting lower performance in order to purchase more quantity of equipment may, at times, be of considerable importance. However, it is noted that obtaining price information from manufacturers and some cost analysis from organisations already using equipment is difficult. Until this problem can be resolved then the value of an advisory service is open to question.

End users may have a potential role to play in mitigating this problem, and in broadening the information flow from the current predominantly one-way advisory service originating with the GICHD catalogues and staff opinions. A new model might include users receiving advisory services being expected to offer some feedback on the products selected after six months or a year.

5.8.1.1 Technical Advisory Service - Mitigating Actions

If advice is to be given to potential purchasers of demining technology then the evaluation team suggests that the following mitigation actions:

- focus on identifying the key issues relevant to equipment choice in a particular area and on preparing briefing notes and training materials so that in-country decision makers are increasingly able to make their own choices;
- discuss cost-benefit options and financing before making a recommendation;
- identify all equipment of a type that can be considered “fit for purpose” rather than selecting individual items, and advise about all suitable products and not a single product;
- promote contact with other users seeking to resolve the same problem, or who have purchased and used one of the alternative equipment choices;
- identify manufacturers and suppliers willing to give price information about purchase, maintenance and running costs (even outline guidance);
- be aware that there may well be further choices which are not known about by GICHD staff – mine action technology is such a wide field that no-one can possibly be expected to know everything.

5.8.2 Technology take-up - What is the real issue?

While there is a demand for assistance in choosing equipment, further analysis shows this is not always the root of the problem of introducing technology to the field. There are more fundamental issues in *Technology Take-Up* (actually getting equipment into the field and ready for use) than choosing between different brands or types of equipment. One of the key issues, and probably the single most important barrier to greater Technology Take-Up is the non-technology barrier of contractual and financing arrangements.

The previous GICHD Technology Officer had clearly identified non-technology issues as the most important barriers to technology uptake (see box below), and the Technology Workshop of 2006 also confirmed these as being a key issue (the first of the five themes in the workshop report, quoted above). Given this clear and repeated identification of a key issue, it is disappointing that there are no reports of action taken to examine the issue and identify means to address it in the future. This may not be an area traditionally considered as “Technology,” but it is clearly identified in the GICHD Strategy (Operational Objective 1.2).

Beyond the useful “Buyers checklist” in the GICHD Equipment catalogue, little work has

been done at a practical level on evaluation of contractual and financing mechanisms or on developing alternatives to current practice. The evaluation team considers that the Centre should take these issues into account when developing the overall Technology programme with a view to analyzing their relative importance and, as necessary, including more work in this “non-technology” area of technology uptake.

The evaluation team found the comments by former GICHD Technology Officer *Al Carruthers* of particular interest and would like to include some key points in this report (with thanks to Al Carruthers for his permission):

“The key question is how to handle getting enough equipment into the field to make a difference – it’s not anymore about recognising what technology can do, but convincing donors that this is the way forward, and demonstrating cost effectiveness is a major part of this.”

“There is enough technology available, the big problem is ‘take-up.’ The key problem is not about not knowing what would work, it is a ‘supply to the field’ issue.”

“One year contracts are a nuisance. [Using technology] needs a multiyear approach to demining with leasing or multi-year programmes for mechanical support. The main barriers to technology use are in fact non-technological. The right budget mechanisms do not exist. We must use a minimum five year window, otherwise technology gets ignored and the money goes to do more of the same without any increase in efficiency.”

“We need to get out there and do a ‘show and tell’ which could open people’s eyes and find ways to get around the financial issues.”

“Introduction of new technology [such as dual sensor detectors] has to be done at NMAA (national) level and not at an *ad hoc* user level. It has to have programme level support and not just individual support. To achieve this we have to be able to influence thinking at NMAA level.”

For mechanical demining “What we need to pass on to users is not “how to use a flail” but “how to finance a flail” and “how to work out the cost/benefit.”

Different analyses of the underlying issues were considered during the course of the evaluation, including²⁴:

- the nature of donor aid in being unwilling to fund capital intensive purchases;
- the difficulty in implementing a viable, medium- to long-term strategy in a national mine action programme (or by an individual operator), that would allow the effect of capital expenditures to be evaluated and the results presented as a case for donor finance;
- pressure by some donor governments to supply equipment manufactured by their national industries;
- fragmentation of clearance contracts making capital investment unattractive;
- lack of knowledge, and lack of available information for national decision makers and the donors they approach.

The GICHD is in a uniquely strong position to address some of these issues. The widespread reputation for impartial and technically sound advice, together with the neutral status and

²⁴ The evaluation team thanks, in particular, Ted Paterson of GICHD for his comments on this issue.

international approach, of the GICHD (see section 4.5.1, page 18, reporting the interviews) means that policy level interventions carry some weight and are not seen as promoting the agenda of a special interest group. The GICHD has a good relationship at senior levels with both donors and national mine action authorities. If the key issues in technology take up are to be addressed then the first step could usefully be a study to better identify the root causes and to identify *strategic* approaches. This is indeed a long way from the “nuts and bolts engineering” side of technology, and demands a different skill set, so that it may not be appropriate for the same staff to undertake both parts. However, given that non technology issues have been repeatedly identified as a key barrier to technology take-up they should not be ignored simply because they do not conform to a particular traditional view of technology issues. The evaluation team considers that the longer term *impact* of addressing these key issues is potentially greater than the *impact* from using the available resources in other areas.

5.8.2.1 Development-based approach

Given the commitment of the GICHD to a developmental approach based on partnership and empowerment of national programmes, a suitable goal for a technology advisory service would be to provide the necessary information, tools and training to national staff to enable them to make their own decisions about technology. This is not something that could be achieved quickly, or in every country. The GICHD Strategic Goal 2 states this directly:

“National authorities and implementing partners should be able to make sound decisions based on the most up-to-date technical solutions, best practices and lessons-learned generated by field research, socio-economic studies and evaluations.”

A first step has already been taken, for example, in the detector trials where the GICHD has been *managing the trials* for national authorities, but further steps towards training and supporting local management could be useful.

Developing a team at Geneva who would *undertake* technology assessments instead of teaching others to do so in a practical and “hands-on” approach, would go against the implementation of GICHD Strategic Goal 2.

Given the lifetime of demining equipment is usually about four or five years, there will be a need for future technology assessments in any demining programme lasting more than about five years. Essentially, if there is a need to develop a long-term national demining capacity, that should usually include demining technology capacity. Even if future technical and equipment assessments will still require expert assistance such as that offered by the GICHD, there is a clear case for developing local skills as far as possible to gradually reduce external dependence. The minimum would appear to be to work with, and actively train, national counterparts. The knowledge gained might not be enough for such a person to act alone in technology assessments and identification of requirements in the future, but would increase local autonomy. The role of the international experts should move, for example, from conducting detector trials, to working with national staff in conducting them and eventually to being independent quality managers and expert advisors.

In the short term moving from a purely technical advisory role to a capacity building role requires a change of emphasis, and possibly some staff training. The work-load would initially increase (i.e. with the same staff a slower response to requests would have to be envisaged) but an increase in local skills should gradually decrease the workload for the GICHD again as local autonomy increases.

5.9 IMPLEMENTATION ISSUES FOR THE TECHNOLOGY PROGRAMME

5.9.1 Overlaps with other programmes

The technology programme has significant overlaps with the Mechanical Demining, Mine Detection Dog, Personal Protective Equipment and other areas of work of the Centre. The evaluation team notes that there appeared to be very good collaboration and resolution of “who does what” with no significant problem about the boundaries. This is, however, a topic that must be kept in review to ensure efficient implementation.

5.9.2 Future staffing

This report has identified a number of areas in strategy, identification and programming which could have implications in terms of requiring changes to the skills needed and workload for the Technology programme.

Without pre-judging the response of the GICHD to any recommendations made, the following is intended to give guidelines.

1. Allocation of resources and identification of the required expertise should be based on use of the project cycle which starts with the already well-defined strategy and then identifies and prioritises the programmes the GICHD should implement to achieve the strategic goals. On the basis of the resources required to achieve the programme goals, the projects should be formulated and from this the personnel inputs identified. This leads to defining the responsibilities of individual staff and identifies areas where recruitment is necessary. This is the reverse of the sequence which seeks to start by using the urgency of a “demand from the field” and one-year activity plans to define what should be done. One of the weaknesses of using “demand from the field” is that areas which are important but not evident can be overlooked. One example is the significant contribution made by GICHD Technology staff to ITEP and CWA processes. The interviews showed that no-one at the field or national management level was fully aware of the significance of this contribution, and that no-one was aware of the reduction in this contribution when funding for the full time Technology Officer ended.
2. Three key issues which have been identified are: the financial and contractual blockage to technology take-up (identified in the joint GICHD-UNMAS workshop 2006); cost effectiveness analysis; and skills transfer to national personnel. Recruitment should aim to strengthen skills in key areas. This may require a different skill set from that usually associated with mine action technology.
3. Developing and maintaining a knowledge base of demining technology to support cost effectiveness analysis and objective recommendations would add considerably to the workload already undertaken for the equipment catalogues, and require a refocusing of the skill-set. This must be balanced against other priorities.
4. Where specific advice is needed on a particular technology, the GICHD should continue to hire in subject matter experts on a short term basis rather than try to increase their permanent staff or expect one technology expert to cover all technologies.

5.9.3 Monitoring issues

Monitoring and Evaluation are an integral part of the Project Cycle, not an “add-on” at the end to find out about the project when it is already too late to make a difference.

The evaluation team notes the positive response to comments made last year about evaluation, but considers that there is still a need for some quite fundamental restructuring in the way monitoring and evaluation is included in the overall design and implementation of the Technology and Mine Action Standards programmes of the Centre. This, in turn, depends on clearer definition of the strategic process, in particular improved *Programming* which defines *outcomes* rather than *outputs* of the programmes before they start. Definition of activities is clear and well documented, the link to outcomes and goals remains weaker.

The lack of clearly defined objectives which can be used to evaluate progress to a goal (rather than evaluation of activity level) was a major obstacle in this evaluation. The full integration of monitoring and evaluation into programme design should be regarded as a priority.

6 Conclusions

6.1 ACHIEVEMENTS

1. The GICHD is widely regarded as an authoritative, independent and impartial source of support services and publications, and its programmes are generally well regarded.
2. The Technology and Mine Action Standards programmes of the GICHD have both achieved important results in a number of areas including, but not limited to:

Technology

- A significant contribution to the literature on mine action technology, including the Catalogues of equipment, a Guidebook, and extensive information on the World Wide Web.
- Significant support for in-country testing of demining equipment.
- With UNMAS, a joint Technology Workshop which brought together decision makers from Mine affected countries and was widely considered a success and worth repeating.
- With UNMAS, a joint Technology Newsletter.
- Participation in major conferences and meetings on mine action technology.

Mine Action Standards

- The role of the GICHD in IMAS is widely recognised throughout mine action.
- Collaborative working, formally set out in a Memorandum of Understanding, with the United Nations Mine Action Service.
- A major contribution to both the technical content and the process of International Mine Action Standards (IMAS), and to the distribution of the standards. There is strong (though not universal) support for the IMAS.
- A major contribution to the preparation of the Technical Notes for Mine Action which supplement and support the IMAS.
- Significant Technical support to test and evaluation and standards processes, including the International Test and Evaluation Programme for Humanitarian Demining (ITEP), and the European Committee for Standardisation Workshop Agreement (CWA). It is noted that the CWA is a purely technical standard which does not take into account cost effectiveness.
- Support for countries engaged in the process of developing National Mine Action Standards.

3. There were some questions raised about the apparent repeated choice of working with the same partners in some areas. The lack of published guidelines about how the GICHD works with commercial companies, and how much the Centre contributes to commercial products, is a cause of rumours and misunderstanding.

6.2 PROGRAMME IDENTIFICATION AND PLANNING

1. Despite the positive response of the GICHD to the recommendations made in the 2007 Evaluation of the MDD and MRE programmes, and the resulting changes, there are still very important weaknesses in the programme and project level planning processes for the Technology and Mine Action Standards programmes evaluated this year. One consequence of a lack of clear written multi-annual objectives is that it becomes difficult, and at times impossible, to identify indicators of progress for evaluation. This also makes it difficult for GICHD to identify their own successes.

Overall, there are a number of key documents which would be valuable in supporting a formalised programme-level planning, monitoring and evaluation process, but which have not yet been written. The gap between GICHD strategy and annual work plans based entirely on activities must be addressed and the current process of moving away from activity based programming towards a strategy-driven approach strengthened.

2. *Cost efficiency* has still to be taken up as one of the key criteria at two levels: selection of programmes and activities within programmes. Monitoring and evaluation are not evident as an integral component in the design and implementation of programmes. Cost efficiency is included in the GICHD strategy and a number of publications, but has been little implemented by the GICHD in its own activities.
3. There are few criteria published so that potential partners know the requirements for working with the GICHD. Particularly in the case of collaboration with commercial companies, this lack of information is leading to some ill informed accusations of bias, as decisions – which are kept confidential - are often made on the basis of unwritten experience and not objective criteria which are available for all to see.
4. Both the Technology and Mine Action Standards programmes have failed to undertake an analysis of the potential scale of benefit of their technical activities, and then used this analysis in setting priorities. This has resulted, for example, in resources being allocated to urgent tasks which have low impact (in both areas). It is noted that GICHD is only one partner in the IMAS process, however the Centre takes the lead in many technical aspects of standards and could usefully bring this issue of *impact* to the attention of all concerned.
5. Financial and contractual constraints have been identified as one of the key blockages to technology take up in the field, both by the former GICHD Technology Officer and by the participants in the 2006 Technology Workshop. This finding should be used in the selection of activities in the field of mine action technology, and to define any future selection of staff skills required to implement the programmes should resources become available. These may require a different, and complementary, skill set from the strengths of the current staff. The recent reduction of the technology role from a full time to a part time post leaves no spare capacity to take up these issues in addition to other ongoing activities.
6. The evaluation team notes the requests from the field for assistance in selecting equipment and mechanical assets. However, there are significant difficulties in providing an equipment advisory service as it is essential that the two fundamental selection criteria are technical effectiveness and cost-effectiveness. Cost information is often unavailable (both purchase and running costs). Any detailed recommendation service would therefore need to be backed by a substantial effort in obtaining, cataloguing and analysing information (including the information needed for cost effectiveness analysis). This is far in excess of current resources.
7. A developmental approach to mine action technology uptake, in line with GICHD strategy, suggests that the GICHD should focus such a service on providing the resources and training to enable national staff in mine affected countries to make their own technology selection and implementation rather than offering a consultancy based on evaluation visits.

6.3 PROGRAMME OUTCOME

1. Answering the key question “Has the GICHD made a difference in the field?” is not straightforward. This question would be best approached by having a set of defined goals and measuring progress towards them. The annual workplan model used by the Centre does not fully support this type of evaluation. Identifying a programme in terms of the activities to be undertaken and not the *outcomes*, answers only the question “Were the staff working hard?” Feedback from the field is only a rough indicator of outcome for two reasons: first, it answers the question “Was something achieved?” rather than “Were the resources optimally used to achieve the best *impact*?” and secondly, some of the important parts of the Technology programme have little or no direct and immediate field impact. The GICHD contribution to ITEP and CWA has no measurable field impact during a period of perhaps several years, and can only be evaluated in terms of the GICHD identifying the strategic value of such actions, setting programme level goals and measuring progress towards the goals.
2. The IMAS Review Board, for which the GICHD provides technical support and the secretariat, lacks strategic direction and is not functioning well as a result. This is not a reflection of the performance of the GICHD, or of individual GICHD staff, but a strategic issue in which the GICHD has a real interest if the resources it provides to IMAS are to be optimally used. The IMAS Steering Group has not met for a considerable period. Clearly, the GICHD is only one member of the ISG and not solely responsible, however the impact on the overall IMAS process is considered to be potentially severe. This failure to fully implement the terms of the MoU between the GICHD and UNMAS may be due to the current change-over of Directors of UNMAS and GICHD and hopefully readily resolved once new Directors are appointed.

6.4 ACTIVITIES

1. The improvements to the GICHD website in the last year are welcome, but again, this is an ongoing process that is not finished. Clearer links between the GICHD and the IMAS websites, which intentionally duplicate information, are needed. Easier access for foreign language speakers who want to order or download publications in their own language is needed. A number of new documents which could be useful in the two programmes evaluated have been identified. Improved service for remote users with dial-up modem access (or other very slow internet access) should be seriously considered. Both the Technology and Mine Action Standards programmes need: (a) clearer links to external websites which duplicate information together with an explanation of the rationale for duplication, (b) web pages, *which include diagrams as well as text*, to show the complex interface between these programmes and other programmes of the GICHD and with other organisations such as UNMAS. The boundaries of responsibilities should be made clear in this information.
2. Communications remain too much based on the concept of all information passing through GICHD at the centre of a network; a more distributed model in which the Centre promotes, enables and supports peer-to-peer communication between other stakeholders, without all information passing through the Centre must be adopted wherever possible. This should improve contact between end users and decision makers who face similar problems and reduce the pressure on already busy GICHD staff.

7 Recommendations

1. Further attention must be given to fully implementing Project Cycle Management, or another equally rigorous formal management approach, which bases actions on a planning sequence which starts with strategy and programming, uses a formal methodology to identify multi-annual goals and define how they are to be reached, then bases activity planning on reaching the goals. Monitoring and evaluation are part of the design. This is the highest priority recommendation.
2. Both the Technology and Mine Action Standards programmes must start to monitor and evaluate the overall impact of potential projects, and focus far more on work that has a high impact, even if this means setting aside preferred projects which have highly vocalised demand from the field but a low overall impact.
3. The GICHD should insist that IMAS Steering Group – or another similar strategic director-level body – is re-started and develops effective strategy for IMAS in terms of both *process* (especially the Review Board) and *content* by choosing to work on standards with the greatest overall impact. If the Memorandum of Understanding between UNMAS and GICHD is still not fully functional in terms of these strategic meetings after the new directors are in place in both GICHD and UNMAS, then this will also need to be addressed as a matter of priority.
4. Staff selection in recruitment, and ongoing training for staff, must address some of the skills identified in this evaluation which have not conventionally been regarded as core skills. Formal training in designing a programme by setting goals based on impact and cost-efficiency (Project Cycle Management or another formal method) are essential for Technology and (to a slightly lesser degree) Mine Action Standards. Since financial and contractual issues have been identified as a major constraint in technology take-up, skills in this area are also urgently needed by the technology team.
5. Despite the demand from the field and GICHD staff for an equipment advisory service available now, the GICHD should only make recommendations regarding the choice of mine action equipment:
 - (a) once such recommendations can be based on objective criteria for *Technical effectiveness* and *cost effectiveness* based;
 - (b) A programme is in place to ensure that as wide a range of different equipment and manufacturers as possible are included.

Wherever possible, a developmental approach should be used instead of an external advisory service, to assist counterparts in developing their capacity to make and implement decisions about mine action technology. This should include training and mentoring of counterparts for all activities including: financial and contractual analysis, cost effectiveness analysis, data gathering of field performance and costs data, and test and evaluation.

6. The contribution of the GICHD to standards and test and evaluation programmes, and the programme of meetings and conferences, should be regularly re-assessed to ensure continued support for these important background activities which have no short-term impact in the field. It is strongly recommended that a multi-annual plan be developed for working with ITEP and for a strategic approach to these other areas.

7. Given the scale of the recommendations made for a changed approach for the technology team, and the background tasks identified, it is unlikely that the existing part-time staffing will be sufficient to implement even a part of the changes. It is therefore recommended (a) that the technology programme be planned, using formal PCM methods, to identify goals, and to prioritise projects so that the most important work is undertaken first, and (b) the activities to achieve these goals should be based on re-starting a full time Technology Officer as soon as funding permits. The highly ambitious Operational Objectives in the GICHD Strategy cannot be met with only part time staffing.
8. Work on the website and publications is progressing well and should be continued. The changes outlined in Conclusion 1 of Section 6.4 above should be implemented.
9. The GICHD should improve communications in two ways:
 - a. The traditional model of all contact and information flow passing through Geneva should be reviewed at all levels and wherever possible moved towards an *enabling, and distributed* model whereby the Centre facilitates contact between practitioners but does not channel all the information via GICHD staff.
 - b. The criteria for partnership (commercial, NGO and national mine action structures) with the GICHD should be identified and formally documented, then published. The current lack of clear and objective criteria is unsatisfactory, and is leading to unfounded rumour and innuendo.

8 List of Annexes

Annex A	List of Interviewees.
Annex B	Key documents
Annex C	Evaluation Methodology
Annex D	Detailed notes regarding the provision of Equipment Advisory Services
Annex E	Concept paper for annual work plan 2008 Technology Officer

Annex A List of Interviewees

Name	Organisation	Country
NATIONAL (& INTERNATIONAL) MINE ACTION AUTHORITIES AND CENTRES		
Col. Norbert Badet	Director, Humanitarian demining training center of western Africa (CPADD)	Benin
Rotha Chan	Director, Socio-Economic Planning, CMAA	Cambodia
Andres Dávila	Director, PPAICMA (NMAA)	Colombia
Torres Bolivar V	Chair of Executive Board, National Demining Centre	Ecuador
Celma Manjate	Head of Finance and Administration, National Demining Institute	Mozambique
Papa Omar Ndiaye	Director, National Mine Action Centre	Senegal
Mansoor Alezzi	Director, Yemen Mine Action Authority	Yemen
UN Field Staff		
Pascal Simon	CTA	Senegal
John Dingley	STA	Lao PDR
Tammy Hall	STA	Western Sahara
Nelson Verissimo	TA	Angola
POLICY & STRATEGY		
Johan Sohlberg	Swedish EOD and Demining Centre, Senior Policy Advisor	Sweden
Reuben McCarthy	Conflict Prevention and Recovery Specialist, UNDP	S Africa
David Rowe	UNDP Strategic Advisor to BHMIC	Bosnia and Herzegovina
DONORS		
David Spence	First Secretary, EC Delegation in Geneva	EU
Carly Volkes	Program Coordinator, Mine Action and Small Arms Team, Foreign Affairs & International Trade	Canada
COMMERCIAL Manufacturers and Implementers		
Dusan Krissak	Sales Manager, Way Industry (Bozena Flails)	Slovakia
Ashley Williams	MECHEM	S Africa
Magnus Bostrom	Business development manager, ScanJack	Sweden
Emmanuel Deisser	Ronco Regional Representative	Belgium
Alan Ismaeel and Ardalan Ahmed	ASA Company	Iraq/Kurdistan
GICHD STAFF and former staff		
Stephan Nellen	Director	
Ian Mansfield	Operations Manager	
Ted Paterson	Head of Evaluation and Assessment	

Faiz Paktian	Head of Standards and Stockpiles	
Erik Tollefsen		
Al Carruthers	Formerly: Technology Officer	
Sandra Velasco		

	UNMAS Staff	
Noel Mulliner		

	Mine Action NGOs and International Organisations	
Ben Lark	Head, Weapon Contamination Sector Assistance Division	
Rob White	Director of Operations, MAG	UK
Bob Doheny	Chairman, ITEP	USA

Annex B – Key documents

This is an indicative and not an exhaustive list.

A Guide to the International Mine Action Standards	GICHD	Apr 2006
A Study of Mechanical Application in Demining	GICHD	May 2004
Activity Report January - December 2006	GICHD	Mar 2007
Activity Report January - December 2007	GICHD	Mar 2008
Concept paper for annual work plan 2008 Technology Officer	GICHD	2008
Evaluation of the GICHD	S Jeannet	Nov 2004
Framework of TNMA (from IMAS website)	IMAS	Mar 2008
GICHD Strategy 2006 - 2008	GICHD	2005
Guide to Developing National Mine Action Standards	GICHD	
IMAS Framework	GICHD / UNMAS	Feb 2006
IMAS Work plan	GICHD / UNMAS	2003, 2004, 2006
International Mine Action Standards (CD – issue 4)	IMAS	2008
List of participants 11th International Meeting of Mine Action National Directors and UN Advisors	UNMAS	Apr 2008
Management of IMAS (on IMAS website)	UNMAS	April 2007
Mechanical Demining Equipment Catalogue 2008 (CD)	GICHD	2008
Memorandum of Understanding between the United Nations Mine Action Service and the Geneva International Centre for Humanitarian Demining.	UNMAS/ GICHD	Nov 2007
Metal Detectors and PPE Catalogue 2007 (CD)	GICHD	2007
Minutes of IMAS Review Board meetings:	GICHD / UNMAS	2004, 2005, 2006, 2007
National Mine Action Standards for various countries as posted on IMAS website	GICHD / UNMAS	Various
Proceedings for the UNMAS/GICHD Technical Workshop, including Annexes	GICHD / UNMAS	Feb 2006
Statutes of GICHD	GICHD	Dec 2005
Strategy Paper 2000-2002	GICHD	No Date 2001?
Terms of Reference: Evaluation of the Geneva International Centre for Humanitarian Demining	GICHD	Feb 2008
The Geneva International Centre for Humanitarian Demining in 2005	GICHD	May 2006

Annex C – Evaluation Methodology

See section 3.2 above for derivation and purpose of these tables.

Questions in ToR	PCM phase	ToR scope, part 1 or 2
Are the programmes implementing the GICHD overall strategy of supporting “faster, cheaper, more effective, mine action.”	Programming	1
Are new programmes being identified in a strategic manner?	Identification	2
Are the activities complementary to or in competition with other mine action organisations?	Identification	1
Are the programmes relevant to stakeholder needs and capabilities?	Formulation	1
Are new initiatives well designed with concrete objectives and a clear understanding of which stakeholders will benefit?	Formulation	2
Are the stakeholder and target audience needs being met?	Implementation	1
Do the GICHD’s products and services reach the intended users/audiences?	Implementation	2
Are new products and services delivered in a timely and cost-effective manner	Evaluation	2
Are GICHD’s products and services being used by field programmes?	Evaluation	2
Do GICHD management and staff learn from both success and failure?	Evaluation	2

Evaluation criteria

The same PCM based approach can be used for the evaluation criteria. This is outlined in the table below:

Evaluation Objective as stated in ToR	Principal Criteria stated in ToR	Key questions to be answered (indicative list only – final list to be prepared for the Inception Report in discussion with the GICHD.)	Phase of PCM cycle
Results achieved from IMAS and Technology programmes	- Appropriateness of outputs - Effectiveness	If the planned outputs have been achieved, will this lead to the desired outcome? Do the “outputs achieved” match the “outputs proposed” in the plan? Do different stakeholders have varying views on the outputs and outcomes? Would other outputs have been more likely to achieve the desired outcome? Could the same outputs have been achieved more quickly or at lower cost? Is the benefit of the outcome (for which the outputs are needed) proportionate to the cost and effort?	Formulation Implementation Evaluation Evaluation, programming Evaluation
Analysis of programming and project-cycle processes	Relevance Comparative advantage Effectiveness	Was the already-established strategy of GICHD reflected in these programmes? Was PCM fully implemented at all stages, including “closing the loop” for feedback? Which phases of the PCM cycle were found to be the most difficult to implement and why? Did PCM yield the desired results? Was the process properly understood and well implemented? Should a different project	Formulation Evaluation Evaluation Evaluation

		management method be considered in future?	
Baseline data for future evaluations	Usefulness for evaluation	<p>Has data been identified in the course of this evaluation which could benefit future evaluations (either of other programmes or of strategy)?</p> <p>Can this data be gathered within the framework of this current evaluation?</p> <p>Does the potential benefit of collecting this data outweigh the effort of collecting and organizing it?</p> <p>How is this data to be presented and stored, who will hold this data for future use?</p>	Evaluation (all questions)

Annex D – Detailed notes regarding the provision of Equipment Advisory Services

The basis for a recommendation on technology is **technical effectiveness** and **cost effectiveness** (see text box for an introduction to these terms). Unless the technology works there is no point in using it, and unless the technology offers an increase in productivity (or a reduction of cost for the same productivity) there is no direct economic justification for using it.²⁵ The GICHD could offer the greatest strategic value if they were to (a) develop **methodologies** in both of these areas suitable for field users – especially cost effectiveness which has had far less attention than technical effectiveness, (b) develop GICHD staff skills, and specialist training programmes to teach national staff how to analyse their needs on the basis of these methodologies, and (c) develop the knowledge base of information about mine action technology which is indispensable to support the analysis.

There is a long-standing recognition at the GICHD for the need to develop cost effectiveness. The GICHD Strategy states, in Operational Objective 1.2 “Safe, appropriate and cost-effective techniques, technologies and best practices for mine action will be made available and utilised by programmes in the field.” The GICHD 2004 “Study of Mechanical Application to Demining,” which was published after two years of research, referred in some detail to the need to develop an understanding of cost effectiveness. The relevant chapter states: “Clearly it is essential that scarce mine action resources be deployed in such a way as to achieve the best possible outcomes. Cost-effectiveness analysis (CEA) has a key role to play in achieving this goal.” The report also presented a computer model for Cost Effectiveness calculation (CEMOD) developed by Dr. John Gibson and Dan Marsh of Waikato University, New Zealand, though this appears to have been little used. Dr. Robert Keeley, co-author of this evaluation, presented a further application of CEA in the GICHD Study of Manual Mine Clearance, 2005 (though this application required extensive additions to introduce basic cost-accounting principles). CEA is a standard technique with broad application.

Cost Effectiveness is a relative term: it is properly used to make a comparison of the type “method x is more cost-effective than method y”. Improved cost effectiveness analysis models for mine action technology need to make better use of the established CEA methodology of first measuring productivity without the use of the new technology, and then measuring the productivity change on introducing the technology in order to determine the true benefit (or otherwise) of the new technology. The result will often be largely dependent on the initial situation, and this is one reason why a “one size fits all” answer is not likely to be useful. It is very unlikely that one piece of equipment will be the most cost effective in all the very varied circumstances where ERW are found.

Cost data

In order to apply analytical measures of effectiveness and cost effectiveness information about the performance, cost, durability and other parameters of equipment are needed. Assembling this information, and keeping it up to date, is a non-trivial task, but any advisory service must of necessity take this on board as a core activity.

There are two key areas which, although not the direct responsibility of the GICHD, but are severe constraints. First, many equipment manufacturers are unwilling (or unable) to provide detailed costs associated with their products and, secondly, many (perhaps most) mine action programmes are unable to provide information about the true operating costs associated with

²⁵ This is a shortened version of the fully qualified statement “Unless the technology offers an increase in productivity while maintaining or enhancing safety...”

a specific piece of equipment. An equipment advisory service will have to spend substantial time and effort to proactively seek this information, and develop new methodologies to address these issues.

Technical Effectiveness and Cost Effectiveness

These concepts are well understood by most people at a practical level, even if the terminology seems technical. One simple example is the selection and purchase of vehicles.

When a demining programme wants to purchase vehicles it requires a certain level of *effectiveness* such as load capacity, four wheel drive for rough terrain, etc. But it will also look at *cost effectiveness* which might include: purchase price, fuel consumption, spare parts costs, etc.

The large number of Japanese pick-up trucks used by demining organizations, and the scarcity of exotic Porsche and Mercedes four-wheel drives, suggests that the concept is well understood and widely implemented.

The problem for the selection of demining equipment is that too little information about cost effectiveness is available in the public domain – if indeed any is available at all. Testing protocols have evolved to accurately describe technical performance but have generally not addressed cost effectiveness. Some manufacturers are very reluctant to even supply a guideline purchase price for the GICHD equipment catalogue. Publishing any sort of cost effectiveness comparison requires a significant background task of collecting and organizing data.

The result is like trying to buy a vehicle when you only know the performance and do not know about the running costs or even the purchase price. Making any sort of recommendation under these circumstances is extremely difficult and great care is needed to avoid misleading comparisons.

===

Cost Effectiveness Analysis (CEA) is a standard economic technique to establish the *relative* effect of selecting a particular technique, technology or procedure. It is generally used to compare the effect that, for example, the technology under review will have on productivity compared with either the current way of operating, or with an alternative technology.

CEA is a standard, non-proprietary technique in general use throughout the world, and mine action programs should have little problem in finding personnel able to carry out such analysis. The key point is the fundamental importance of CEA as part of the process of technology and equipment selection in the context of mine action, and specifically in the local context of the procedures used in a particular situation.

The GICHD work on the equipment catalogues is a sound basis, but does not contain enough cost information, nor efficiency information to be the complete solution. It is noted that the GICHD makes every effort to obtain price information but that some manufacturers are not prepared to release this. A forum where national programmes could share information about equipment, including technical information, deployment issues, purchase costs and operating costs is urgently required. However, it is also recognised that such a forum could be highly contentious as manufacturers who seek to hide their prices are unlikely to be supportive of a forum which discusses prices, and it might be very difficult for the GICHD to promote such an initiative.

Similarly, the GICHD support for test and evaluation is also welcome, but T&E has followed an established route of prioritizing technical efficiency measurement, and an analysis of the potential impact of testing is likely to show that putting more resources into cost effectiveness analysis would be useful. As noted above, this analysis is an *identification* phase activity.

The experience of the EUDEM2 project (which was concerned with future rather than current technologies) was that the value of the knowledge base was only realized when a significant proactive effort was made to obtain information, together with a structuring and filtering effort, to try to provide the customer with the most relevant information. However, the most important added value was considered to be in the *links* which could be identified between database items (e.g. in the case of mechanical equipment: who is using which equipment for what purpose under what circumstances). Without this knowledge gathering activity recommendations can only be based on individual knowledge. Relying on the personal knowledge of experts is not satisfactory as no-one can be reasonably expected to have a grasp of the entire range and performance details of all available equipment.

The respected position of the GICHD

A potential further risk to be considered in an advisory service is the misunderstanding of an *opinion* of an expert, intended to give useful guidance, such as “under these circumstances you might consider this type of equipment” – meaning that this is just one of several options which should be considered. Such remarks can too easily be mis-translated into a definitive “the expert stated that this was the type of equipment to use,” or even worse get re-written as “the GICHD says that this is the best.” This is clearly extremely undesirable, and avoiding even an accidental misunderstanding of this type must be an integral part of the overall design of any technology advice service. Clear guidelines and terms of reference, published for service users to see before consultation, can assist with this. Training national staff (mentioned elsewhere in this report) should also increase local understanding of the complexities of equipment advice and address this issue. Using defined criteria to examine a knowledge base (or database) is also a part of the solution.

Potential solutions

Interview respondents gave a clear indication that a useful outcome for a technology advice service would be a short list of suitable equipment which had been identified as effective and cost-effective for the particular problem they were facing, with a simple scoring system to distinguish the options, and short details of the strengths and weaknesses of each technology or each individual product. This is essentially the service offered by organizations such as “Consumer Reports” or “Stiftung Warentest” for potential purchasers of such items as cameras, dishwashers and cars. Extensive use is made by these publications of a mixture of technical evaluation and multi-criteria analysis to present the results in a clear way to non-technical readers, with brief comments to enable relative advantages to be identified. In addition to the fundamental criteria of effectiveness and cost effectiveness such an evaluation can be extended to introduce availability, training needs, etc, to produce a useful overall evaluation. The real key is the use – and publication – of clear, and objective criteria for evaluation, so that the results can readily be put in the context of the end user.

There are some real constraints as to the information that can be offered. It is recommended that the GICHD work with technology decision makers in mine affected countries, with donors, with standards bodies and with manufacturers to define (i) the information content (ii) the analysis, and (ii) the presentation of any advisory service, *before* giving advice, and that any service is based as far as possible on (i) multi-year programming and (ii) a developmental approach of training end users so that they become skilled in core tasks.

ANNEX E – GICHD Concept paper for annual work plan 2008 Technology Officer

Staff involved: Erik Tollefsen
Klaus Koppetsch
Ban Yaseen

Consultants: Jack Glattbach
Al Carruthers

Reporting to: Håvard Bach

Projects: 9162 Technology Officer
???? UNMAS/GICHD Technology Workshop 2008

Targets for 2008:

1. Key technology meetings and publications:

- Together with UNMAS organise and chair an international technology workshop in Geneva
- Together with UNMAS produce four issues of the UNMAS/GICHD Technology Newsletter
- Attend as observer at ITEP Work plan and EXCOM meetings
- Attend and advice CEN 126 in WG 7 "soil characterisation"

2. Operational field support and training missions:

- Introduce and test "Signature Metal Detectors" for UXO in Lebanon and Laos
- Visit Halo Trust's HSTAMIDS project in Cambodia
- Visit Golden West's explosive harvesting project in Cambodia

3. Attendance at international workshops and meetings:

- UN PM meeting in Slovenia/Croatia in April
- GICHD animal detection conference in Norway in June
- US DOS Mine Action workshop in USA in August
- Vallon workshop in Germany in October
- NDRF Summer Conference in Sweden in August
- UNMAS/GICHD Technology Workshop in Geneva in September
- NDRF Summer conference in Sweden (27-29/8)