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National Capacities and Residual Contamination

Nicaragua

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The Geneva International Centre for Humanitarian Demining (GICHD) is an international expert organisation based in Switzerland that works to eliminate mines, explosive remnants of war and other explosive hazards. By undertaking research, developing standards and disseminating knowledge, the GICHD supports capacity development in mine-affected countries. It works with national and local authorities to help them plan, coordinate, implement, monitor and evaluate mine action programmes. The GICHD also contributes to the implementation of the Anti-Personnel Mine Ban Convention, the Convention on Cluster Munitions and other relevant instruments of international law. The GICHD follows the humanitarian principles of humanity, impartiality, neutrality and independence.

Contents

Glossary of Abbreviations

AICMA	*Acción Integral Contra las Minas Antipersonal* (Comprehensive Action Against Anti-personnel Mines)
APMBC	Anti-Personnel Mine Ban Convention
AP	Anti-personnel
AXO	Abandoned explosive ordnance
CHA	Confirmed hazardous area
CIEN	*Cuerpo de Ingenieros del Ejército de Nicaragua* Corps of Engineers of the Nicaraguan Army
CL	Community liaison
CND	*Comisión Nacional de Desminado de Nicaragua* (Nicaraguan Demining Commission)
EOD	Explosive ordnance disposal
ERW	Explosive remnants of war
GICHD	Geneva International Centre for Humanitarian Demining
IMAS	International Mine Action Standards
IMSMA	Information Management System for Mine Action
JID	*Junta Interamericana de Defensa* (Interamerican Defence Junta)
MoD	Ministry of Defence
MRE	Mine risk education
NGO	Non-governmental organisation
NMAA	National Mine Action Authority
NMAC	National Mine Action Centre
OAS	Organisation of American States
PACAM	*Programa de Asistencia para el Control de Armas y Destrucción de Municiones en Centroamérica* (Assistance Programme for the Control of Arms and the Destruction of Munitions in Central America)
PADCA	*Programa de Asistencia para el Desminado en Centroamérica* (Assistance Programme for Demining in Central America)
PNDH	*Programa Nacional de Desminado Humanitario* (National Humanitarian Demining Programme)
QA	Quality assurance
QC	Quality control
QM	Quality management
SHA	Suspected hazardous area
SOP	Standard operating procedure
UXO	Unexploded ordnance
VA	Victim assistance

Executive Summary

Introduction
This case study forms part of a broader GICHD study on national capacities and residual contamination and is based on both desk-top research and findings from a GICHD mission to Nicaragua in December 2013. The purpose of the report is to document Nicaragua's experience of developing national clearance capacities to address residual contamination, and to identify and present good practices and lessons learnt.

In April 1992, the Nicaraguan Government presented National Humanitarian Demining Programme plans at the Organisation of American States (OAS) Headquarters in Washington DC. These described an implementation period of 10 years and establishment of a national operational structure, trained and equipped to carry out operations under technical supervision.

Completion
Nicaragua signed the Anti-Personnel Mine Ban Convention (APMBC) in 1997 and ratified it in 1998. The Convention entered into force on 1 May 1999. The APMBC States Parties granted Nicaragua a one-year extension to its Article 5 obligations during the 2008 Ninth Meeting of States Parties. The new deadline was set for 1 May 2010. Nicaragua announced that it had cleared the last known anti-personnel (AP) landmine at the 2010 APMBC Meeting of the Standing Committees on 13 April 2010. With this statement, Central America became the world's first AP landmine-free region.

Following Article 5 completion, the national mine action programme itself ceased to exist. Although the National Demining Commission still exists judicially, its structure was deemed to be inappropriate as a response to future residual contamination. Following a presidential decision, the Corps of Engineers maintained a unit responsible for addressing residual contamination.

Since completion, Nicaragua is facing a residual problem of mines and explosive remnants of war (ERW), especially of UXO, throughout the country. The exact extent of the problem is "impossible to document on a national level", according to the Nicaraguan Demining Commission. Between May 2010 and October 2013, a total of 415 hazardous reports were filed (15,119 UXO/AXO and 455 landmines (99 per cent AP mines) were destroyed). The army responded to a total of 70 residual contamination reports in 2013, of which 18 were AP mines and ERW in urban areas. The army expected a reduced number of hazardous reports, but the reports have in fact been constant over the last few years.

National ownership
Nicaragua's mine action programme was always nationally "owned": the Nicaraguan Army started clearance in the early 1990s and remained the key actor in addressing residual contamination after Article 5 (A5) completion in 2010. This solid national ownership characterised the mine action programme from the very outset, which makes the Nicaraguan experience unique. As a result, it was not necessary to have a transition plan/strategy in place, stipulating the key aspects of transitioning from an internationally-driven A5 completion-focussed programme to a context of increased national ownership, in which national actors address residual contamination.

Key Findings: Good Practices, Main Challenges and Lessons Learnt
Nicaragua's experience of developing national clearance capacities to address residual contamination sheds light on several interesting issues. Key findings include:

Good Practices

National ownership
While the principle of national ownership is recognised globally, it is well known that the process of transitioning mine action programmes from external actors to national ownership is frequently characterised by challenges. In this regard, the Nicaraguan experience exemplifies a good practice. The Nicaraguan mine action programme was nationally owned from the outset as the national army had started demining earlier in 1989, financed by national resources.

International assistance
The OAS played an instrumental role during the completion and the post-completion phases, through its provision of technical, coordination and financial support. It is further evident that the loyal support from international donors was critical for the Nicaraguan Army to address residual contamination post-A5 completion.

The importance of Community Liaison (CL) and MRE activities
CL and MRE activities were instrumental in facilitating information-sharing between local communities, the OAS and the army. Early MRE activities established a link between the Nicaraguan Army and affected communities, including in Las Palomas and Chiltepe, where community focal points were subsequently appointed. Sound community involvement further strengthened community ownership of the activities.

Clearance as trust-strengthening activity
The Army reportedly experienced challenges in gaining trust from the Las Palomas communities in the early days of clearance activities. With time, however, local communities' trust in the army improved as they witnessed the clearance and recognised the benefits it would bring with regards to safety in the area.

Main Challenges and Lessons Learnt

Competing national priorities
Competing national priorities and financial constraint is a key impediment to the Nicaraguan Corps of Engineers being able to address residual contamination effectively. It was also pointed out that addressing residual contamination is not seen as a priority within the Nicaraguan Army itself.

Lack of donor interest post-A5 completion
The Nicaraguan Army is under the impression that most international donors "lost interest" in Nicaragua post-A5 completion. The Army believes that this has negatively impacted the country's ability to address its residual contamination in an effective manner. At the same time, however, it is clear that continued support from some donors was instrumental for the success of some major residual clearance activities.

Long-term management of the IMSMA database
As pointed out above, the OAS is the guardian of the IMSMA database. While this was not explicitly pointed out as a challenge by any of the stakeholders, it brings into question the issue of sustainability; especially since the OAS is no longer involved in mine action activities in Nicaragua.

Introduction

Background to the study

This case study forms part of a broader GICHD study on national capacities and residual contamination and is based on both desk-top research and findings from a GICHD mission to Nicaragua in December 2013. A full list of meetings held during that mission is available in Annex I. During the mission, the Organisation of American States (OAS) organised a field trip to the Las Palomas and Chiltepe residual contamination sites.

The purpose of this report is to document Nicaragua's experience of developing national clearance capacities to address residual contamination, and to identify and present good practices and lessons learnt. National capacities and residual contamination study terms of reference are available in Annex II.

Country context

Nicaragua is situated in Central America, has a population of around 5.9 million and is bordered by Honduras in the north and Costa Rica in the south. In terms of health, education and income, Nicaragua is ranked by the United Nations Development Programme (UNDP) Human Development Index as 129th of 187 countries in 2013.[1]

Origin, nature and scope of mine/explosive remnants of war contamination problem

The Nicaraguan Revolution marked the Central American country from the 1960s through to the 1990s. The Sandinista National Liberation Front (FSLN) started its opposition to the Somoza dictatorship in the 1960s, resulting in the violent ousting of Anastasio Somoza Debayle in 1979. The Sandinistas, who subsequently established a revolutionary government, ruled Nicaragua until 1990.

In the framework of its anti-communist strategy to deal with Latin America, the United States (US) Government had the aim of isolating the Sandinista regime. Backed and trained by the US Central Intelligence Agency (CIA), counter-revolutionaries, so-called *Contras*, were formed in 1981 along the Honduran border to overthrow the Sandinista government. The resulting internal armed conflict, lasting until 1990, left Nicaragua contaminated by landmines, and explosive remnants of war (ERW), including abandoned explosive ordnance (AXO) and unexploded ordnance (UXO) which includes bombs, fragmentation grenades, mortars and ammunition.

In 1989, the mine/ERW problem was primarily concentrated in densely populated areas close to the Honduran border (ie. in the departments of Nueva Segovia, Madriz, Jinotega and the Northern Atlantic Autonomous Region (RAAN)).[2] Both the Sandinistas and the Contras used landmines extensively. They were laid in 14 of the country's 15 departments and in both autonomous regions. Contamination was severe in 74 out of the 152 municipalities.[3]

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[1] UNDP (2013). Human Development Index, https://data.undp.org/dataset/Table-1-Human-Development-Index-and-its-components/wxub-qc5k

[2] International Campaign to Ban Landmines (ICBL) & Cluster Munition Coalition (CMC) (2009). Landmine & Cluster Munition Monitor: Nicaragua. Accessible at http://www.the-monitor.org/index.php/publications/display?url=lm/2003/nicaragua.html

[3] Republic of Nicaragua (2010). Declaration of Completion of Article 5 of the Convention on Anti-Personnel Mine Ban Convention, http://www.apminebanconvention.org/fileadmin/pdf/other_languages/spanish/MBC/clearing-mined-areas/art5_extensions/countries/Nicaragua-Art5Declaration-1May2010-sp.pdf

The Nicaraguan military and a Commission of Experts of the Inter-American Defence Junta (*Junta Interamericana de Defensa,* JID) worked together in 1989 to determine the extent of mine/ERW contamination in the country, initially identifying 991 mine fields.[4] The eventual removal and destruction of 179'970 mines represented an additional 33 per cent compared to the initial estimate of 135,643, as identified by the PNDH.[5]

Hurricanes Joan (1987), Mitch (1998) and Félix (2007) severely impacted soil conditions and resulted in doubts regarding exact borders of mined areas, something that negatively impacted subsequent demining operations.

The APMBC entered into force in Nicaragua on 1 May 1999. Nicaragua fulfilled its APMBC Article 5 obligations of identifying and clearing all known anti-personnel (AP) mines in May 2010. Since completion, Nicaragua faces a residual mine/ERW problem, especially of UXO, throughout the country. The exact extent of the problem is "impossible to document on a national level", according to the Nicaraguan Demining Commission (*Comisión Nacional de Desminado*, *CND*).[6]

Map 1: Departments and Autonomous Regions of Nicaragua[7]

[4] *Ibid.*, p. 3.
[5] Republic of Nicaragua (2012: 5) Article 7 Transparency report.
[6] International Campaign to Ban Landmines (ICBL) & Cluster Munition Coalition (CMC) (2012). Landmine & Cluster Munition Monitor: Nicaragua – Mine Action. Accessible at http://www.the-monitor.org/index.php/cp/display/region_profiles/theme/2906
[7] ICBL & CMC (1998). Landmine and Cluster Munition Monitor: Nicaragua.

Background to establishing the national mine/ERW programme

Demining activities in Nicaragua started in 1989, initially financed exclusively by national resources.[8] Suspicions of extensive contamination, however, led the Nicaraguan Government to seek support from the OAS in 1990, to evaluate the extent of the contamination, and to determine the level of international assistance needed to implement a demining programme. The Nicaraguan Military and a Commission of Military Experts of the JID subsequently identified the mined areas and the extent of the contamination.[9]

In April 1992, the Nicaraguan Government – with logistical support from the OAS and technical advice from the JID – presented PNDH plans at the OAS Headquarters in Washington DC. These programme plans indicated an implementation period of 10 years and the establishment of a national operational structure, trained and equipped to carry out operations under technical supervision.[10]

Organisation of American States (OAS)

The OAS established a Nicaraguan office in 1993 but only started demining operations in 1996 due to earlier budget restrictions. During the main phase of the mine action programme, OAS key responsibilities included technical capacity-building of the Nicaraguan Army, quality management and a strong focus on mine risk education (MRE) and victim assistance. Denmark requested OAS supervision of demining teams in 2001, reportedly in response to the high number of accidents during army clearance operations.

Through the Assistance Programme for Demining in Central America (*Programa de Asistencia para el Desminado en Centroamérica,* (PADCA)), the OAS played a key role in supporting clearance operations over the next 14 years until Nicaragua's completion of its A5 obligations in 2010.

Corps of Engineers of the Nicaraguan Army (CIEN)

In 1993, the Nicaraguan Army created a Special Demining Unit (composed of five Engineer Platoons of 150 soldiers) equipped and trained with international support. The Special Demining Unit was formed within the Nicaraguan Army's Corps of Engineers (*Cuerpo de Ingenieros del Ejército de Nicaragua,* (CIEN)) and was tasked to implement demining operations complying with International Mine Action Standards (IMAS). The operations were supervised by the international Support Mission for the Removal of Mines in Central America (*Misión de Apoyo a la Remoción de Minas en Centroamérica, (*MARMINCA)) of the OAS/JID which was established that same year, composed of 15 military officials from various Latin American countries.[11]

With its strengthened capacity, the CIEN continued implementing demining operations in 1994 and 1995, funded by national resources. During this period, the CIEN also launched a MRE campaign.

[8] Republic of Nicaragua (2010: 1f).
[9] *Ibid.*
[10] Nicaraguan Army (2010). National Humanitarian Demining Programme, http://www.ejercito.mil.ni/contenido/sociedad-civil/cuerpo-ingenieros/docs/memoria-pndh.pdf
[11] Republic of Nicaragua (2010: 1f).

In 1996, international support for the National Humanitarian Demining Programme got fully underway and lasted until completion in 2010.[12] The Government of Nicaragua, via the National Demining Commission, directed the programme, and the CIEN implemented it (see figure below).[13]

National Demining Commission (CND)

Following ratification of the APMBC, Nicaragua created the Nicaraguan Demining Commission (*Comisión Nacional de Desminado*, (CND)) through Decree 84-98 on 5 December 1998. The Ministry of Defence chaired the CND which comprised representatives from the ministries of foreign affairs, health, education and transportation. The CND was responsible for establishing the National Demining Programme, which had the following four components:

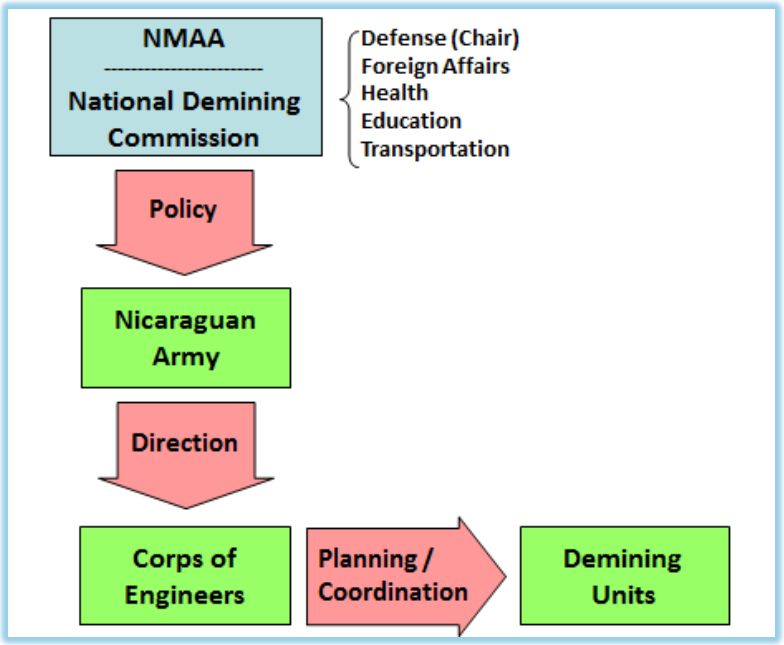
- removal and destruction of anti-personnel mines;
- destruction of stockpiled anti-personnel mines;
- victim assistance and socio-economic reintegration of victims; and
- MRE.[14]

The CND was the highest example of inter-institutional[15] coordination of the Nicaraguan Government, tasked with overseeing the implementation of, and compliance with, the APMBC. Additional CND responsibilities included:

- promote demining as one of the national humanitarian priorities;
- support monitoring of National Demining Programme policies and supervise its activities;
- manage inclusion of social programmes of rehabilitation and reintegration of mine victims;
- raise funds from external actors for demining activities and channel these to different implementing entities of the National Demining Programme as well as monitoring their administration;
- maintain a database on demining-related activities;
- prepare studies about progress of the National Demining Programme, keep the international community informed and coordinate the national and international fundraising efforts;
- establish a MRE programme; and
- liaise directly with the Ministry of Defence regarding information-sharing.[16]

[12] Nicaraguan Army (2010: 9).
[13] See http://www.ejercito.mil.ni/contenido/sociedad-civil/cuerpo-ingenieros/cuerpo-ingenieros-desarrollo.html
[14] Republic of Nicaragua (2010: 5).
[15] The CND was composed of officials of the Ministry of Defence, the Vice-Ministry of External Relations, Governance, Health, Education Culture and Sports, Agriculture and Forestry, Transport and Infrastructure, the Secretary of External Cooperation, the Director of the Nicaraguan Institute of Municipal Development, the President of the Nicaraguan Institute for Social Security and one delegate of the Nicaraguan Military, as well as one delegate from the National Police. In addition, members of the following institutions were invited to the meetings: the Defence and Governance Commission of the National Assembly, the OAS, the Nicaraguan Red Cross and the Centre of Strategic Studies of Nicaragua as well as the Joint Commission for the Disabled for Peace and Reconciliation of the Department of Madriz (República de Nicaragua (2010: 5)).
[16] National Assembly of Nicaragua (1998: Arts. 1, 2 & 5). Decree 84-98. Creation of the National Demining Commission. 27 November 1998. Accessible at http://legislacion.asamblea.gob.ni/normaweb.nsf/d0c69e2c91d9955906256a400077164a/fbd76358c333dc8a06257153005f2418?OpenDocument

National Demining Structure (established 1999)[17]



[17] Presentation by Carl Case, OAS Mine Action Coordinator, during 13 MSP, Geneva, December 2013.

Towards Completion

The CIEN implemented demining activities from the very beginning in 1993, and continued to do so over the next 17 years.[18] In terms of financial assistance, 70 per cent of donor support came from multilateral sources, channelled through the OAS while 30 per cent was provided bilaterally (e.g. by Germany and Denmark). Denmark previously provided funding directly to the Nicaraguan Army, as it had sufficient presence in Managua to interact with the army on a regular basis for monitoring purposes.

APMBC States Parties granted Nicaragua a one-year extension to its Article 5 obligations during the 2008 Ninth Meeting of States Parties, thereby setting the new deadline for 1 May 2010. [19]

Nicaragua announced that it had cleared the last known AP landmine at the 2010 APMBC Meeting of the Standing Committees on 13 April 2010. With this statement, Central America became the world's first AP landmine-free region.[20]

The table below summarises results of the National Humanitarian Demining Programme in Nicaragua between 1989 and 2010, as stated in Nicaragua's declaration of completion of Article 5 of the APMBC:[21]

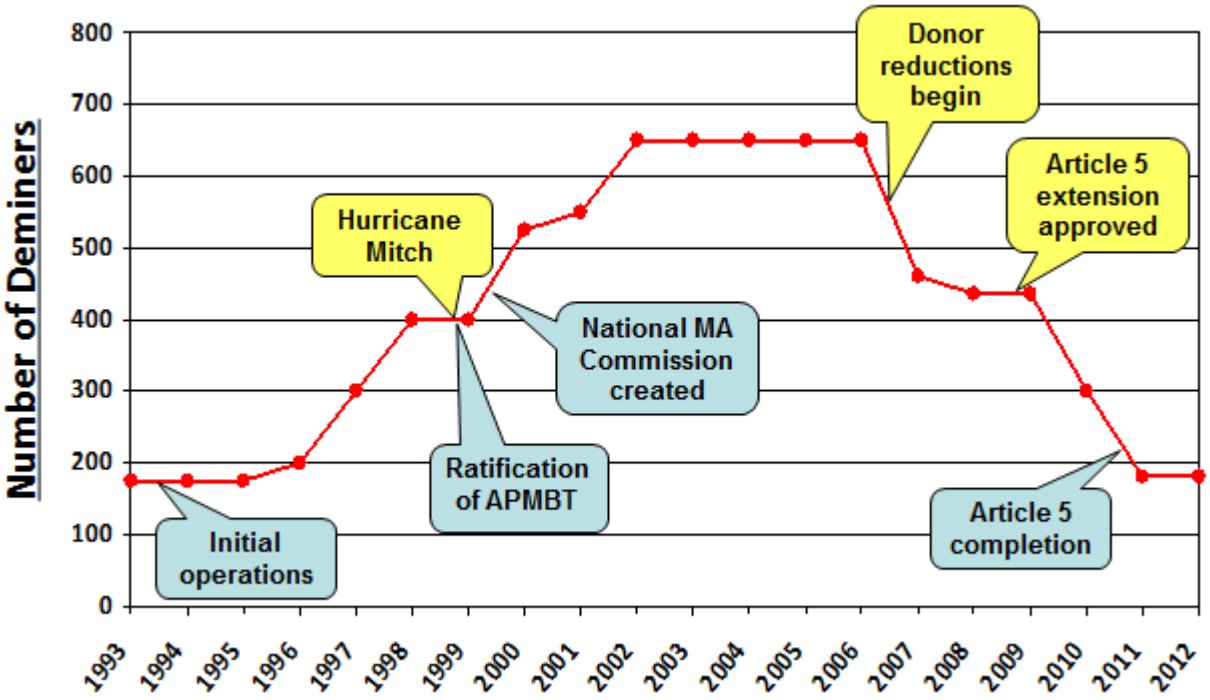
Destroyed anti-personnel and anti-vehicle mines[22]	179,970
Cleared hazardous areas	11,923,329 m^2
Destroyed ERW	2,034,970
Demined municipalities	74
Beneficiaries (direct and indirect)	2,500,100 inhabitants
Cleared mine fields	1,029

Nicaragua reported that it never produced or exported AP mines and that it destroyed its stockpile of 133,435 AP mines between 12 April 1999 and 28 August 2002. The Nicaraguan Army retained 448 AP mines for training purposes.[23]

[18] Republic of Nicaragua (2010:11).
[19] Anti-Personnel Mine Ban Convention (2008). "Decisions on the Request Submitted by Cambodia for an Extension of the Deadline for Completing the Destruction of Anti-Personnel Mines in Accordance with Article 5 of the Convention", 28 November 2008. Accessible at: http://www.apminebanconvention.org/fileadmin/pdf/mbc/clearing-mined-areas/art5_extensions/countries/Nicaragua-ext-req-decisions-28Nov2008-en.pdf; República de Nicaragua (2010: 9)
[20] Anti-Personnel Mine Ban Convention (nd.). *Nicaragua*. Accessible at http://www.apminebanconvention.org/states-parties-to-the-convention/nicaragua/
[21] Republic of Nicaragua (2012). Article 7 Transparency Report, 2012, http://www.apminebanconvention.org/fileadmin/pdf/mbc/clearing-mined-areas/Article7-Nicaragua-2013.pdf
[22] Also including landmines that exploded during accidents. Article 7 Transparency report, *ibid*.
[23] Republic of Nicaragua (2012) Article 7 Transparency report, *ibid.*

Following Article 5 completion, the national mine action programme itself ceased to exist. Although the National Demining Commission still exists judicially, its structure was deemed to be inappropriate for response to future residual contamination.[24] Following the decision of the President of Nicaragua, the CIEN maintained a unit responsible for addressing residual contamination.[25] Prior to completion, the National Humanitarian Demining Programme predicted that there may be a residual ERW contamination problem. CIEN assumed responsibilities for coordination and for addressing residual contamination shortly after Article 5 completion. Transition of coordination responsibilities from the CND to the CIEN appears to have taken place smoothly without any significant challenges.

Overview of the Nicaraguan mine action programme 1993 - 2010[26]



[24] Telephone conversation with Juan Umaña, Director of International and Humanitarian Affairs, Ministry of Defence, 21 March 2014.
[25] *Ibid.*
[26] Presentation by the Corps of Engineers of the Nicaraguan Army, Managua, 11 December 2013.

History of the Process of Developing National Capacities

As mentioned previously, the Nicaraguan mine action programme was always nationally "owned": the Nicaraguan Army started clearance in the early 1990s and remained the key actor in addressing residual contamination after Article 5 completion in 2010.

Nicaragua was therefore never faced with transitioning clearance responsibilities from international operators to national operators, as is often the case in other mine action programmes. It was rather a question of transferring coordination responsibilities from the CND to CIEN. It was further a question of the CIEN shifting its focus from completing Article 5 obligations through proactively identifying and clearing AP landmines, to reactively addressing residual contamination as and when it is reported.

Solid national ownership characterised the mine action programme from the very outset, which makes the Nicaraguan experience unique. As a result, it was not necessary to have a transition plan/strategy in place, stipulating the key aspects of transitioning from an internationally-driven A5 completion-focussed programme to a context of increased national ownership, in which national actors address residual contamination.

While it is important to underline the great achievements with regards to national ownership in Nicaragua, it is equally important to highlight the significance of international support throughout the process, pre-completion as well as post-completion. It appears that the OAS has played an instrumental role in developing Nicaragua's clearance capacities, pivotal for the country completing its APMBC clearance obligations and for the army to address residual contamination post-completion. OAS implemented its support through the Support Mission for the Removal of Mines in Central America (MARMINCA), a military mission created by the Inter-American Defence Junta. The mission aimed to provide technical capacity development support and training, as well as assistance related to monitoring and supervision of demining operations.

In addition, several stakeholders underlined the importance of sustained international funding, post-Article 5 completion, to enable continued development of national clearance capacities to address residual contamination. Stakeholders highlighted Norway and Spain as two donors that maintained financial support post-completion, critical for residual clearance operations.

Addressing Residual Contamination

What is residual contamination?

The International Mine Action Standards (IMAS) define, in the context of humanitarian demining, residual risk as '*the risk remaining following the application of all reasonable efforts to remove and/or destroy all mine or ERW hazards from a specified area to a specified depth*.'[27]

Building upon this, it is logical to define residual contamination as the sites or areas where mines and other ERW are discovered after all suspected hazardous areas (SHAs) and confirmed hazardous areas (CHAs) have been processed and considered fit for normal human use (at least with respect to the surface and immediate subsurface of these areas).

Residual contamination in Nicaragua

As mentioned above, Nicaragua is currently facing a residual mine/ERW problem, particularly of AXO and UXO. In its Article 5 Declaration of Completion, Nicaragua states that it will proceed in the following way in the case of new mined areas discovered or suspected to exist after 1 May 2010:

- report those mined areas in accordance with the Article 7 obligations of the Convention and share this information through any other informal mechanism, such as the Intercessional Work Programme (*Programa de Trabajo intersesional)*;
- ensure that ERW do not cause injury or death to the civilian population; and
- destroy or ensure the destruction of all anti-personnel mines in mined areas of urgent priority, communicating its needs for assistance to other States Parties that could collaborate.

During the first six months post-completion (May-October 2010), the Nicaraguan Army responded to 118 hazardous reports, destroying a total of 193 landmines and 6,663 ERW.[28] These 2010 statistics underlined the importance of having capacities in place to address residual contamination in 2011 as 118 hazardous reports were still pending at the end of October 2010. In light of this, Nicaragua decided to maintain one engineer battalion and one platoon, ready to respond to hazardous reports.[29]

Key actors

Residual contamination in Nicaragua has been addressed predominantly by the Nicaraguan Army, with assistance from the OAS. The CIEN is the responsible entity for executing landmine clearance and explosive ordnance disposal (EOD) tasks.

Following completion of Article 5 obligations in 2010, the OAS established the Assistance Programme for the Control of Arms and Munitions (PACAM). Main OAS responsibilities under this programme included providing requested financial, technical, logistical and administrative support to the Central American national authorities to strengthen their capacities to destroy arms, ammunition and other ERW. In the PACAM, the national authorities and the OAS shared

[27] IMAS 04.10, *Glossary of mine action terms, definitions and abbreviations*, 2003, http://www.mineactionstandards.org/fileadmin/MAS/documents/imas-international-standards/english/series-04/IMAS-04-10-Ed2-Am6.pdf
[28] Republic of Nicaragua (2010: 12).
[29] *Ibid.*

responsibilities – with the former defining priorities and executing the plan, and the latter providing resource support and supervising the activities.

In Nicaragua, the OAS focused its residual contamination support around three main areas: victim identification and assistance; prevention and response to reports; and rehabilitation of cleared land.

Upon completion of clearance at the Las Palomas (August 2011) and Chiltepe (June 2012) sites, the OAS is no longer formally involved in addressing residual contamination in Nicaragua. The organisation has however maintained a regional office for Central America in Managua, with very limited activities in-country. From time to time, however, the organisation still receives contamination reports from local communities, a legacy from its active involvement with affected communities in the past.

Reporting structures

Community members report hazardous items in the Nicaraguan residual contamination context to several different actors:

- an emergency number that civilians can call to notify the CIEN of any residual contamination (OAS paid for this until A5 completion in 2010, since then, CIEN pays to maintain it);
- local army units:
- local Police; and
- OAS[30].

Nature of residual contamination

From the time of completion in May 2010 until October 2013, a total of 415 hazardous reports were filed (15,119 UXO/AXO and 455 landmines (99 per cent AP mines) were destroyed).

The army responded to a total of 70 residual contamination reports in 2013, of which 18 were AP mines and ERW in urban areas. The army expected a reduced number of hazardous reports, but reports have in fact been constant over the last few years.

Key residual contamination sites

Two main residual ERW contamination sites were discovered in Las Palomas and Chiltepe. The Las Palomas site was a dumping ground for the National Army and Chiltepe was a former Army training site.

Las Palomas

Las Palomas is a residual ERW contamination site located north-east of the Nicaraguan capital Managua, in the Department of Matagalpa. This area of 35 hectares was used as an AXO dumping ground by the army. The Nicaraguan military dumped several tonnes of ordnance at approximately 50 locations in the forests around Las Palomas in the late 1980s. Following accidents in 2007, in which three civilians were severely injured while searching for scrap metal,

[30] OAS still occasionally receives reports due to their previous active involvement in mine action.

local community members contacted the OAS.[31] There had previously been radio campaigns urging civilians to contact the OAS in case of discovery of any suspicious items.

Under OAS supervision, the Nicaraguan Army carried out clearance in Las Palomas in two phases:

1. 21 April 2010 - 22 February 2011
2. 20 June 2011 – 19 August 2011.

Stakeholders indicated financial support from international donors[32] was instrumental in the completion of the clearance activities in Las Palomas.

OAS contracted the Golden West Humanitarian Foundation (GWHF)[33] (OAS technical and operational partner for UXO-related work in Central and South America) to provide training to the Nicaraguan Army and to supervise quality assurance (QA) and quality control (QC) activities at the Las Palomas site.

The GWHF, on behalf of the OAS, trained the Nicaraguan Military clearance teams in April 2010. This included:

- teaching them the basic principles of using “large loop” detectors in such a way that only large items were being searched for;
- avoiding small metallic signals;
- mapping out the task site with permanent bench marks and turning points;
- establishing the on-site QC pit for daily calibration of the detectors to ensure the search teams were not chasing small pieces of scrap metal;
- laying out the site in an effective grid pattern to ensure full coverage during the search;
- incorporating mechanical assistance (an up-armored Hitachi 16t excavator) to safely speed up the excavation process during survey;
- strengthening the QC/QA procedures; and
- ensuring the mapping of the clearance site was accurate upon completion.

These methods were pointed out to be considerably faster than the traditional manual demining techniques that they used previously and the search depth is far greater.

The GWHF stayed with the clearance teams at Las Palomas for some time to ensure activities were compliant with the standards. The GWHF also conducted a follow-up QC visit in August 2010 to ensure compliance.

Since completion of the main clearance activities, community focal points report hazardous items to the OAS and sometimes to the Nicaraguan Army or the Police, either in person or in writing.

Standards

During clearance operations in Las Palomas, standards used were a combination of relevant IMAS (including 08.30 Post-clearance Documentation, 09.11 Battle Area Clearance and 09.20 Guidelines for Post-Clearance Sampling)[34] and earlier standard operating procedures (SOPs) on deep search for large, deeply buried munitions. These were adapted to the specifics of the Las Palomas context. The GWHF covered the relevant IMAS and SOPs in its training with the

[31] See http://www.oeapacam.org/index.php/destruccion-municiones/nicaragua
[32] Spain funded clearance operations in Las Palomas.
[33] http://www.goldenwesthf.org/en/
[34] IMAS: http://www.mineactionstandards.org/international-standards/imas-in-english/list-of-imas/

military and printed copies of SOPs that had been developed on earlier occasions to implement similar clearance operations to those of Las Palomas. These were shared with team commanders for necessary adaptations and translation into Spanish.

National SOPs for manual mine clearance procedures already existed. The main task was thus to identify activities not guided by SOPs and to adapt external SOPs and IMAS to the Las Palomas context accordingly.

Chiltepe

Another key residual contamination site is the Gocen district of the Mateare municipality in the Chiltepe peninsula, located 18 km north-west of Managua.

Current inhabitants in the area consist of retired soldiers who successfully petitioned the Government to formally legalise the plots they claimed. The land, however, had formally belonged to the Nicaraguan Army, which used it as a training site for its artillery school. As a result, the area is contaminated with ERW, mainly UXO and AXO, something that became apparent when these retired soldiers started cultivating the land.

Following one serious accident and several UXO reports in 2011, community members contacted the Army, which coordinated a response with the OAS programme AICMA.

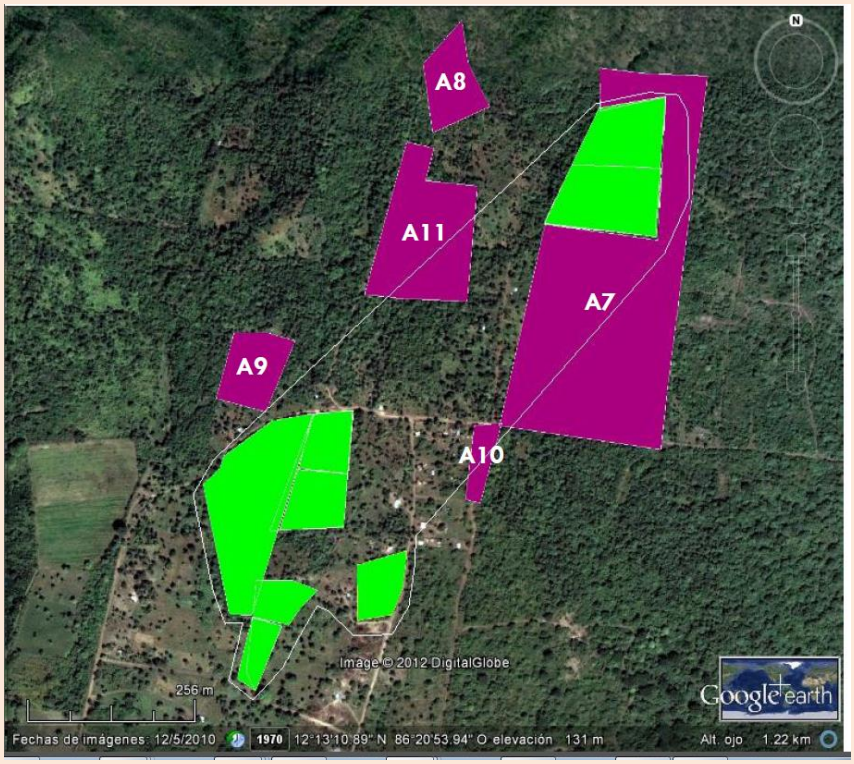
Recognising that Gocen is considered an impoverished area, there were concerns that citizens would collect ERW for scrap metal, exposing community members to risks of injury or death. In response to this, OAS partnered with CIEN and GWHF to conduct a land rehabilitation project. The OAS provided political and diplomatic support for the project through the Acción Integral Contra las Minas Antipersonal (Comprehensive Action Against Anti-personnel Mines, AICMA) and partnered with the GWHF to conduct technical surveys and training. The CIEN contributed with equipment and personnel support.[35]

Under the supervision and coordination of the OAS and in cooperation with local authorities, the CIEN carried out clearance in Chiltepe as part of phase one from 13 February to 22 June 2012. With financial support from Norway, six areas (in green on map below) were cleared during this period. The operations concluded with QC and certification from the OAS-PACAM.

An additional five suspected hazardous areas (SHAs) were identified (in purple, see map below). The CIEN have underlined, however, that they do not have the financial resources to complete the clearance at the Chiltepe site.

Building strong relationships with the local communities constituted an essential component of the clearance activities in Chiltepe: community members were instrumental in sharing necessary information, crucial for prioritisation processes and effective operations. The OAS has also pointed out that community involvement in the operations resulted in strengthened community ownership.

Map 2: Proposed areas for Phase II of Clearance in Chiltepe[36]



Area	Size
A7	83,986 m^2
A8	8,294m^2
A9	9,032m^2
A10	3,610m^2
A11	24,930m^2
Total	129,852m^2

Information management

As of December 2013, OAS was still the "guardian" of the IMSMA database, despite the fact that the organisation was no longer involved in any clearance activities in Nicaragua. Clearance data and reports from the Chiltepe site are kept with the OAS-PACAM.[37] The IMSMA database contains clearance, MRE and VA data.

The Army has a separate database, containing an up-to-date record of all clearance conducted in Nicaragua. The Army indicated that it stores data in several ways, including in electronic, photographic and printed versions.

With regards to information-sharing, community members played a critical role in providing important information to the Army and the OAS, something that was underlined by all key stakeholders. Information-sharing between relevant actors appears to have worked well. The small number of involved stakeholders contributed to this.

[35] Embrey, A, AICMA Helps Demine Nicaragua's Gocen District, The Journal of ERW and Mine Action, Spring 2013, http://www.jmu.edu/cisr/journal/17.1/focus/embrey.shtml
[36] Presentation by OAS-PACAM staff, Managua, 10 December 2013.
[37] See http://www.oeapacam.org/index.php/destruccion-municiones/nicaragua

Key Findings: Good Practices, Main Challenges and Lessons Learnt

The Nicaraguan experience of developing national clearance capacities to address residual contamination sheds light on several interesting issues. Key findings include:

Good Practices

National ownership

While the principle of national ownership is recognised globally, it is well known that the process of transitioning mine action programmes from external actors to national ownership is frequently characterised by challenges. In this regard, the Nicaraguan experience exemplifies good practice. The Nicaraguan mine action programme was nationally owned from the outset as the national army had started demining earlier in 1989, financed by national resources. The strong level of national ownership was due to the Nicaraguan Government's commitment and prioritisation of mine action. The Nicaraguan Government further recognised that it was more cost-efficient to utilise national capacities to clear landmines, rather than contracting international organisations.[38]

International assistance

The OAS played an instrumental role during the completion and the post-completion phases, through its provision of technical, coordination and financial support. It is further evident that the loyal support from international donors was critical for the Nicaraguan Army to address residual contamination post-A5 completion.

Importance of Community Liaison (CL) and MRE activities

CL and MRE activities were instrumental in facilitating information-sharing between local communities, the OAS, and the Army. Early MRE activities established a link between the Army and the affected communities, including in Las Palomas and Chiltepe, where community focal points were subsequently appointed. These representatives served as main interlocutors with the OAS and the army. Furthermore, a multiplier effect was achieved as trainings of trainers were organised with these community focal points. Sound community involvement further strengthened community ownership of the activities.

Clearance as trust-strengthening activity

The army reportedly experienced challenges in gaining trust from the Las Palomas communities in the early days of clearance activities. With time, however, local communities' trust in the army improved as they witnessed the clearance and recognised the safety benefits it would bring to the area. Las Palomas thereby illustrates a positive example of mine action resulting in greater community trust in the army.

[38] Telephone conversation with Juan Umaña, Director of International and Humanitarian Affairs, Ministry of Defence, 21 March 2014.

Main Challenges and Lessons Learnt

Competing national priorities

Competing national priorities and financial constraint are a key impediment to the Nicaraguan Corps of Engineers being able to address residual contamination effectively. It was also pointed out that addressing residual contamination is not seen as a priority within the Nicaraguan Army itself. It was further emphasised that logistical challenges (mainly related to accessibility) mean deployment of clearance teams can be very costly.

In relation to national priorities, the Ministry of Defence noted that the safety of the Nicaraguan population is a key priority and that residual contamination is recognised as a threat to this. The Ministry further indicated that efforts are being made to secure national resources to continue addressing residual contamination. Based on clearance data from recent years, the Ministry of Defence anticipates that most remaining residual contamination can be addressed by mid-2016.[39]

Lack of donor interest post-A5 completion

The Nicaraguan Army is under the impression that most international donors "lost interest" in Nicaragua post-A5 completion. It believes that this has negatively impacted the country's ability to address its residual contamination in an effective manner. At the same time, however, it is clear that continued support from some donors was instrumental in the success of some major residual clearance activities.

Long-term management of the IMSMA database

As pointed out above, the OAS is the guardian of the IMSMA database. While this was not explicitly pointed out as a challenge by any of the stakeholders, it brings into question the issue of sustainability; especially since the OAS is no longer involved in mine action activities in Nicaragua. Experience in other countries has shown that parallel data bases can result in problems in obtaining accurate and reliable information. This can lead to challenges for future development/infrastructure projects, during which it will be essential for relevant stakeholders to easily obtain accurate data related to previous contamination and clearance activities.

[39] Telephone conversation with Juan Umaña, Director of International and Humanitarian Affairs, Ministry of Defence, 21 March 2014.

Annexes

Annex I: Individuals interviewed

Name	Title	Organisation
Carlos Orozco	Regional Coordinator, Assistance Programme for the Control of Arms and Munitions (PACAM).	Organisation of American States (OAS)
Carlos Cruz	EOD Technician	Organisation of American States (OAS)
Don Julio	Farmer and community focal point for the OAS, Las Palomas	/
Don Juan	Farmer and community focal point for the OAS, Las Palomas	/
Don Mercedez	Retired soldier and farmer, Chiltepe	/
Doña Dominga	Farmer and community focal point, Chiltepe	/
Don Roguiberto	Retired soldier and farmer, Chiltepe	/
Don Santo	Retired soldier and community focal point, Chiltepe	/
Colonel Manual Baldizón	Former Chief of the Corps of Engineers	Formerly Nicaraguan Army Corps of Engineers
Lieutenant Colonel Vinicio Felix Chavarría Baez	Chief of the Corps of Engineers	Nicaraguan Army Corps of Engineers
Lieutenant Colonel Montenegro	Lieutenant Colonel	Nicaraguan Army Corps of Engineers
Juan Umaña	Director of International and Humanitarian Affairs	Nicaraguan Ministry of Defence
Roger Hess	Director, Field Operations	Golden West Humanitarian Foundation (GWHF)

Annex II: National Capacities and Residual Contamination: Study TOR

NATIONAL CAPACITIES & RESIDUAL CONTAMINATION STUDY

BACKGROUND

National ownership is a central principle in the global mine action approach, and is reflected in international conventions and standards. As an increasing number of mine/ERW-affected countries are approaching the "completion" stage of clearing all known contaminated areas, the issues of national ownership and of developing sustainable capacities to deal with residual contamination become more central.

This project will examine the topic of national capacities and residual contamination through documenting processes, providing recommendations and offering targeted, country-specific guidance on the development of sustainable capacities to deal with residual contamination.

OBJECTIVES AND DELIVERABLES

DESIRED OUTCOMES

The anticipated outcomes of the project are:

1. Relevant national and international stakeholders have a better understanding of good practices and key challenges related to sustainable capacities to deal with residual contamination.
2. Relevant stakeholders' capabilities to develop sustainable capacities to deal with residual contamination are strengthened
3. Greater understanding of the role of national security services in dealing with residual contamination.

RESEARCH OBJECTIVES

The sustainable national capacities and residual contamination study missions will be conducted in 2013 – 2015. Findings from these missions will be used to produce country case studies and a guide. The purpose of the guide will be to present key issues and to provide clear guidance on the development of sustainable national capacities to deal with residual contamination. The specific objectives of the guide will be to:

- Review the different types and phases of the development of sustainable, national capacities to deal with residual contamination;
- Document processes and examples from a selected number of countries, to highlight lessons learnt, specific challenges and good practices;
- Document examples from countries that are currently in the process of developing national capacities to address residual contamination, to highlight what works, identify possible gaps, and make recommendations for improvement;
- Assess what has/has not worked well, key factors to consider and lessons learned;
- Identify the key steps in planning for, and developing, national capacities;
- Based on the case study findings, formulate conclusions and recommendations in the form of practical, user-friendly guidance on the topic.

STUDY PRODUCTS

The project will have the following study outputs:

- Country case studies
- A publication on National Capacities to Address Residual Contamination

TARGET AUDIENCE

Research products will specifically target: NMAAs/MACs, national security services, relevant ministries, international and national organisations, relevant UN agencies and donors.

KEY ISSUES TO BE EXPLORED IN COUNTRY CASE STUDIES

1. **Introduction and Overview of the country context**
   - Brief introduction to the country
   - Origin, nature and scope of the mine/ERW contamination problem.
   - Brief background to the establishment of the national mine action programme.
   - Current structure and status of the national mine action programme (if it still exists)
     - level of national ownership
     - level of 'completion' [40]
     - responsible actors (NMAA/MAC, line ministries, national security services)?
     - Which international and national actors are involved in the mine action programme?
     - External support?
   - If the country is an APMBC and/or CCM State Party, was/is there a clear plan to determine when 'completion' is/was done?

2. **History of the process of developing national capacities**
   Describe the process of developing the national capacity to address residual contamination
   - What stakeholders are/were involved (national and international)?
     - Ministries?
     - Donors?
     - National and international operators?
     - Commercial companies?
     - Relevant UN agencies?
   - Key milestones
   - Is/Was the process part of a broader Security Sector Reform (SSR) process?
   - Do/Did specific plans/strategies/policies guide the process?
   - Do/Did a capacity development plan/strategy guide the process?

3. **Addressing residual contamination** (for countries that have reached a "residual state")
   Explore the following key issues:
   - Reporting channels (top-down: from community to security services)
   - Responsible actors? If more than one, describe the nature of the partnership
   - Nature of the residual contamination (items, depth, expected distribution)
   - The process of moving from a proactive to reactive/responsive phase
   - The scope of the responsibility of the national actor/s (does it include Armed Violence Reduction (AVR), Small Arms Light Weapons (SALW) and Physical Security and Stockpile Management (PSSM))?
   - Key aspects of the national risk management approach (if relevant)
   - Liability issues
   - Financial arrangements
   - Sustainability aspects
   - Are operations guided by any standards?
   - Responsiveness
   - Information management

[40] Completion with regards to APMBC and CCM clearance obligations.

a. Reporting structures and reporting flows (from whom to whom?)
b. Information database (where is it stored)
c. Means of information sharing and dissemination (who has access to it?)

4. Key findings: Good practices, main challenges and lessons learnt (approximately 4 pages)

- Critically review the process of developing national capacities. Present and elaborate on key findings, good practices (success stories), and list challenges and issues that have been problematic (lessons learnt).