UNMAS Rapid Response Project

MINE ACTION AND ARMED VIOLENCE REDUCTION

Congo-Brazzaville

CASE STUDY | SEPTEMBER 2012

GICHD | CIDHG

The Geneva International Centre for Humanitarian Demining (GICHD), an international expert organisation legally based in Switzerland as a non-profit foundation, works for the elimination of mines, explosive remnants of war and other explosive hazards, such as unsafe munitions stockpiles. The GICHD provides advice and capacity development support, undertakes applied research, disseminates knowledge and best practices and develops standards. In cooperation with its partners, the GICHD's work enables national and local authorities in affected countries to effectively and efficiently plan, coordinate, implement, monitor and evaluate safe mine action programmes, as well as to implement 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.

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INTRODUCTION[1]

On 4 March 2012, several powerful explosions took place at the Mpila military munitions depot in the eastern part of Brazzaville, Republic of Congo. Approximately 282 people were killed, 1,500 were injured and 20,000 people were made homeless.[2] Entire buildings collapsed close to the site, including a church.[3] The blast consisted of three separate explosions that were caused by an electrical short circuit at an ammunition depot. High levels of contamination resulting from the explosions, including unstable projectiles, pose a serious risk to surrounding communities and impede the provision of humanitarian assistance. The government had planned to relocate the military camp and depot outside of the city limits but did not act quickly enough.[4]

Immediately following the explosions, the United Nations Mine Action Service (UNMAS) led the emergency response in association with the UN Mine Action Team (UNMAT) and the Congolese military, the Forces Armées Congolaises (FAC). The emergency response prioritised the impact zone, which was the most highly contaminated area following the explosions; it had a surface of approximately 50 hectares and a radius of 500m. Teams initially involved in clearance included Mines Advisory Group (MAG), Demeter (a French NGO), and technicians from Benin, the International Committee of the Red Cross (ICRC), the United States, Angola, France, Handicap International (HI) and the Swedish Civil Contingencies Agency (MSB), each supported by personnel from FAC. By mid September, approximately 63,850 items of Unexploded Ordnance (UXO) had been removed and 94 tons of munitions had been destroyed.[5]

The purpose of this case study is to document how mine action organisations are using their skills and expertise to respond to the explosions, and other Physical Security and Stockpile Management needs in Congo-Brazzaville.

CONTEXT

According to the Small Arms Survey, the Republic of Congo has experienced four previous unplanned explosions at various munitions sites in Pointe Noire and Brazzaville.[6] For example, the one that took place in 1997 at the Maya Maya "Poudrière" site next to the Brazzaville international airport resulted in deaths, injuries and the contamination of land previously used for livelihood activities and recreation.[7] This was due to poor storage and handling of weapons and UXO in military depots, which are often located in densely populated civilian areas, posing a significant threat of an unplanned explosion to surrounding communities. In the Government of Congo's 2010 report outlining its implementation of the UN Programme of Action on Small Arms and Light Weapons (SALW), the Government acknowledged that capacity building in stockpile management and weapons destruction is a priority area.

The explosions that have taken place in the Republic of Congo are not isolated events, but are in fact part of a broader global problem. Between January 1998 and October 2011, there were 302 instances of unplanned explosions in 76 different countries, many of which were the result of improperly managed munitions stockpiles.[8]

The physical risk posed by abandoned, damaged and poorly stored and managed stockpiles and explosives is significant. Not only do weapons and ammunition explosions pose significant danger, but after an explosion, undetonated and unstable munitions are often scattered over a wide area, and can remain dormant for many years. The impact on surrounding communities is often wide ranging, from deaths and injuries directly as a result of the explosions, to the destruction of homes, buildings and infrastructure, environmental degradation and the disruption of livelihood activities.[9]

In recent years, mine action organisations have become increasingly involved in responding to unplanned explosions at munitions sites in various countries, and working with national authorities to strengthen the physical security of ammunition storage depots as well as build national capacity in arms and ammunition stockpile management.

UNMAS has also expanded its mandate beyond mine action to include Physical Security and Stockpile Management (PSSM). UNMAS's first PSSM programme was established in Côte d'Ivoire. Although it originally became involved in the country to assess the mine/Explosive Remnants of War (ERW) contamination, evidence soon proved that while the mine/UXO contamination was relatively low, the proliferation of unsecured or poorly secured weapons and ammunition was contributing to insecurity in post-conflict Côte d'Ivoire. As a result, UNMAS altered its mandate and has since worked in close collaboration with the Ivorian military, the Forces Républicaines de Côte d'Ivoire (FRCI), as well as the Gendarmerie and the Police to combat the proliferation of weapons and ammunition through armoury rehabilitation. Despite this previous experience with PSSM, UNMAS's involvement in the Republic of Congo marks the first time the organisation has led an emergency response to an ammunition depot explosion.

EMERGENCY RESPONSE

Immediately following the explosions, UNMAS led the emergency response. UNMAS deployed an assessment team, which started coordinating response efforts with the national authorities, the UN country team and implementing partners to evaluate the response needed and what could be done in the short, medium and longer term. Commonly-agreed objectives for the emergency response included:

- warning people of the residual danger
- mitigating risk
- securing the affected area
- making initial assessments
- initiating emergency operations
- supporting country team representatives in determining an appropriate response[10]

As an indication of government commitment to clearance efforts and recognition of the wider stockpile management problem, the government allocated 140 military personnel who are working in collaboration with international supervisors provided through the mine/ERW operators. The FAC is also hosting a clearance coordination centre, with support from UNMAS, which is located close to the centre of the clearance operations, and is responsible for coordinating the activities of Demeter, HI and MAG.

UNMAS personnel from its programmes in Côte d'Ivoire, Democratic Republic of Congo, Libya, Somalia and Abyei were deployed immediately, and UNOPS provided administrative support.

In partnership with the Ministry of Public Works, UNMAS coordinated the work of two infrastructure experts, sent by the governments of Poland and Switzerland, to assess the structural damage to buildings in the affected areas.[11]

Clearance objectives

UNMAS had a six month operational plan in place for the period March – August 2012, which focused on maximum productivity in relation to clearance of UXO contamination resulting from the March explosions. The short term objective of the emergency response was to prevent injuries and loss of life within affected communities and among mine action staff. The main focus of clearance efforts has been at the centre of the blast zone.

Seven Explosive Ordnance Disposal (EOD) teams initially undertook UXO clearance in the impact zone. These included MAG, HI, Demeter-Benin forces, ICRC/MSB, Angola forces. Each team was supported by soldiers from the FAC.[12] Three mine/ERW operators remain involved – Demeter, HI and MAG.

Between June and August, clearance focused on supporting broader reconstruction efforts, and completing the surface clearance of the most affected sector. Further sub-surface clearance will likely be required in this area. Mechanical equipment has been deployed to break down damaged buildings and remove rubble. From September, Demeter, HI and MAG will continue to clear households according to the needs identified in the Phase 3 plan[13], and in sector 4, will conduct sub-surface clearance in craters and specific rubble clearance in highly contaminated buildings (military buildings).

The UN has also started to discuss with the Government opportunities for establishing a programme to promote physical security and stockpile management, in order to prevent further unplanned explosions.[14]

A temporary ammunition storage area was established in order to safely store the UXO and munitions found in the area. MAG and the FAC carry out bulk demolitions at an external location, when the temporary storage area is full.[15]

MAG

Before the explosion, MAG had been working on SALW destruction, survey and some EOD in the Republic of Congo. With funding from the US Department of State and the UK Conflict Prevention Pool, MAG started working in the country in September 2007 to provide technical support to the FAC on the destruction of SALW and to survey suspected contaminated areas.[16] MAG also trained community members to deliver Mine Risk Education (MRE). In 2009, MAG assisted in the demolition of 4,000 anti-personnel mines removed from military depots in Pointe Noire.

From 2011-2012, MAG implemented a 14-month European Commission (EC)-funded project to clear UXO contamination resulting from a 1997 ammunition depot explosion in Brazzaville. MAG worked with technicians seconded from the FAC and trained them in the identification, handling and destruction of UXO. Together, they marked and cleared the contaminated areas and released the land to the national authorities. The FAC teams trained by MAG have formed MAG's core staff during the emergency response.

MAG conducted a survey in September 2011 to assess the PSSM conditions in five armouries identified by the FAC as being in most need of support. Through its findings, MAG prepared a proposal for PSSM work in these armouries, which, incidentally, included the armoury which exploded in March. However, despite MAG's efforts to raise awareness of the urgent need for PSSM in the Republic of Congo, they have been unable to secure funding for PSSM beyond the emergency response effort.

Although MAG was in the midst of shutting down its operations in Congo-Brazzaville at the time of the explosions, their presence and experience in-country as well as their close relationship with the FAC allowed MAG to immediately support the FAC in providing emergency response to the explosion. The initial assessment was conducted by UNMAS, MAG and Demeter, and MAG then conducted rapid clearance along the axis of a road in order to provide access.[17]

Within four days of the explosions, MAG[18] had international technical experts (one Technical Operations Manager and one Technical Field Manager) deployed to the site of the explosion. Within one month, MAG had four EOD teams carrying out Battle Area Clearance (BAC) in the blast zone. MAG has been in charge of the temporary munitions stockpiles management for all munitions collected by all operators and is in charge of conducting bulk destructions. MAG also launched a risk education effort within the first week after the explosions with immediate effect. MAG had eight Community Liaison teams delivering safety briefings and Risk Education sessions to affected communities within a five kilometre radius of the explosions.[19] MAG's emergency response efforts were supported by private donations channelled through MAG headquarters, ECHO, the German and British Embassies in Kinshasa and UNMAS. In light of the explosion, MAG is using the project proposal prepared in late 2011 to seek funding for PSSM. MAG has carried out further assessment in collaboration with the FAC. However, apart from possible assessment funding from UNOPS, donors still seem hesitant to provide more long-term PSSM funding.

Handicap International

Handicap International initially deployed four EOD experts (two from the Democratic Republic of the Congo [DRC] and one from Senegal with EOD Level three certification, and one international technical advisor with EOD Level four certification) to carry out a visual search of the ground within a two - three kilometre radius from the blast site. After the visual search was completed, HI developed a rubble clearance project coined "2D," an acronym for the French term for rubble clearance (*déblaiement des décombres*), which was submitted to UNMAS and the FAC for validation. The main feature of HI's project was to "intelligently" clear damaged areas by sorting rubble by hand, and recovering any munitions hidden in the debris. The debris was then to be sorted into recyclable and non-recyclable materials, furniture and household remains; if deemed reusable, it was offered to the local community.[20]

While awaiting approval for the 2D project, HI implemented a pilot 2D project from the end of April to the end of May with left-over funds from the French Ministry of Foreign Affairs, originally provided for the visual search phase. The pilot project met all of its objectives and, in May 2012, HI received funding from UNMAS to implement the full-fledged 2D project from 1 June to 31 August 2012 in the civilian sectors around the blast site assigned to HI. To implement the project, HI used three teams, each with about 20 FAC soldiers (60 in total) and headed by the EOD specialists originally deployed in the country (two from the DRC and one from Senegal). HI requested that the FAC supply more soldiers, but had no success. To ensure it had access to the necessary labour resources, HI recruited 50 civilians from surrounding communities to aid in the manual rubble clearance. Recruited through the local *chefs de quartier*, the civilians underwent a five day training on rubble clearance methodologies, first aid and basic ammunition before beginning their work. The civilians were contracted until 25 August 2012 and were provided with insurance by HI.

HI originally planned to end the project on 31 August, once the original UNMAS funding reached its end. However, in July 2012, HI was informed that additional funding would be made available from UNOPS for continued response efforts from September to October 2012 and from the European Union for November to December. This new funding was made available in response to the UNMAS roadmap for the Republic of Congo, which foresees UNMAS's withdrawal by 31 December 2012.

Demeter

Déminage Demeter (referred to hereafter simply as Demeter) is a French non-governmental mine/ERW operator that was established by Michel Rathqueber, a former HI employee. Demeter had been working in the Republic of Congo since January 2011, carrying out non-technical and technical surveys in the Kimongo district of south-eastern Republic of Congo. In August 2011, Demeter signed a Memorandum of Understanding with the Republic of Congo's Ministry of Defence, through which Demeter was allowed to expand its non-technical and technical survey activities to the border with Angola and the entire department of Pool, south of Brazzaville. However, after the explosion of 4 March 2012, Demeter was approached by the FAC to conduct a visual search around the blast site. With funding from UNMAS as well as the French and Dutch Embassies in Brazzaville, Demeter temporarily halted its activities in the rest of the country to support the emergency response in the capital.

After one and a half months of visual search and occasional spot task activities, Demeter proceeded to clear rubble with the support of two civilian EOD teams and three military EOD teams, each with ten members. Two civilians were chosen as team leaders and were trained to EOD Level One certification by Demeter in April 2012; the other civilians received basic training on rubble clearance methodologies and ammunition identification. All five teams were managed by four Demeter supervisors, who were the only ones allowed to actually handle any UXO encountered during the rubble clearance. For this reason, when any team members encountered an UXO, they called their supervisor to remove it or destroy it in-situ.

In addition to its clearance work, Demeter is also managing the '9090' emergency hotline phone number established by the local NGO La Ligne Jeune to help gather information from the local population on the explosion and its aftermath. Once a week, La Ligne Jeune forwards the information received from an average of 50 calls to Demeter, which responds in accordance with the information provided by the public. By 23 April 2012, Demeter claimed to have completed 706 interventions based on information retrieved from the hotline.

Demeter originally expected to end its emergency response work on 31 August 2012, but UNMAS' new road map has extended Demeter's mandate until 31 December 2012. After that, Demeter expects to return to its non-technical and technical survey activities in the south of the country.

MSB

Based on a Rapid Response Memorandum of Understanding in place with MSB, UNMAS was able to have MSB teams on stand-by in Sweden to support emergency efforts. MSB initially responded to the explosions by deploying two Quality Assurance (QA) teams (responsible for checking on the operators and the FAC teams), a medical coordinator and a database expert. MSB is now providing two mechanics to operate an armoured front loader, and one medic.

ICRC

The ICRC responded to the emergency by:

- undertaking clearance activities through the deployment of EOD experts
- managing dead bodies by providing ICRC specialists in forensic medicine and tracing services
- tracing unaccompanied children and restoring contact between family members
- providing psychological support for victims in affected areas and aid for primary health care services[21]
- mobilising a Risk Education response via the national Red Cross

Risk education

UNICEF took the lead in coordinating Risk Education (RE) efforts in response to the emergency. Radio, posters and leaflets have been used to educate communities about potential risks, and UNICEF developed a train the trainers risk education package for implementation in October to develop institutional capacity within the education system.[22]

Within one day of the explosion, MAG initiated RE activities in the contaminated areas, and set up three emergency hotlines to enable civilians to call in and report if they had seen unexploded ordnance (UXO). MAG's Community Liaison (CL) team also briefed Red Cross staff and other aid organisation staff involved in rescue efforts, and trained Red Cross volunteers and others in RE to help disseminate safety messages while assisting civilians that had been evacuated and made homeless.

HI and MAG have deployed ten CL teams in total (two and eight respectively), that delivered more than 2,400 risk education sessions by end June.

Victim assistance

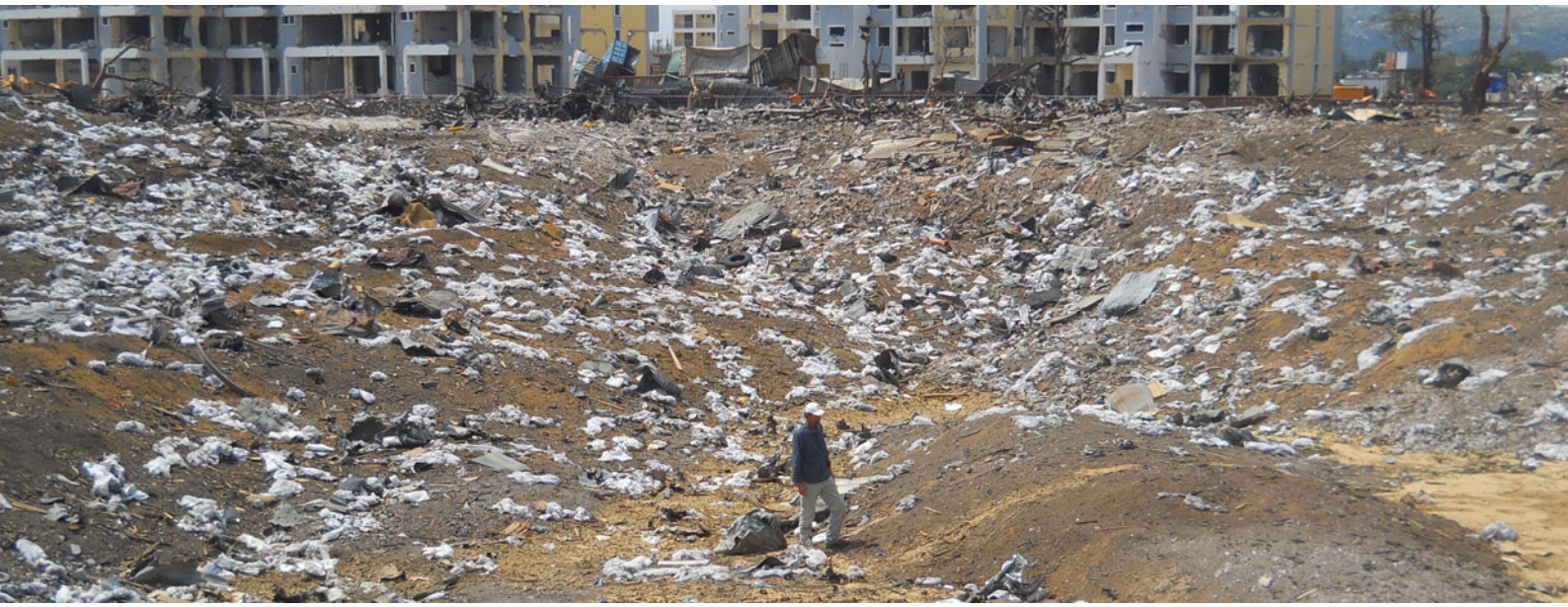
HI was the only organisation involved in providing assistance to victims of the explosion. Within days of the explosion, HI's Emergency Department deployed a three-person victim assistance (VA) team comprised of one VA coordinator, one orthopaedist and one psychologist. The VA team recruited 16 Congolese nationals and created four mobile teams of four members each. In addition to donating materials such as prosthetics to hospitals and directly to victims, the mobile teams led searches to find patients that had received treatment from local hospitals, but had left the hospitals to join their families in government sites or other surrounding cities. After finding these patients, the mobile teams informed them about basic care and provided them with supplies necessary to continue their treatment. HI's VA team also provided psychological support when necessary by deploying the HI psychologist when a mobile team flagged a patient in need of such support.

HI's VA activities ended in early June 2012 as the government of the Republic of Congo decided to take over the responsibility of providing care and assistance to the victims, which it has done, but with limited success.

Quality management

UNMAS has three operations officers, one responsible for operations, one for accreditation and standards and one for field-level Quality Assurance. UNMAS ensures that clearance and destruction operations are undertaken according to International Mine Action Standards (IMAS). UNMAS plans to accredit the existing operators as well as the future national capacity based on IMAS before the end of 2012. The International Ammunition Technical Guidelines (IATG) will be used only if a PSSM programme is established in future as a basis for safe ammunition storage and management practice.

The following is a brief overview[23] of how quality management of UNMAS rapid response operations evolved in Congo-Brazzaville.



Initial Situation

During the first three months of operations, field monitoring visits for Quality Assurance were provided by MSB, at the request of UNMAS; it should be noted that there was no recorded accident or incident overall during this period.

UNMAS has since developed a more thorough approach which includes accreditation of operational partners and which addresses the question of land handover.[24] As of 31 August 2012, Demeter, HI and MAG have each received provisional accreditation.

The operators are required to undertake their own internal QA/Quality Control (QC) inspections and document the findings. Copies of these reports are submitted to the UNMAT QA department on a weekly basis.

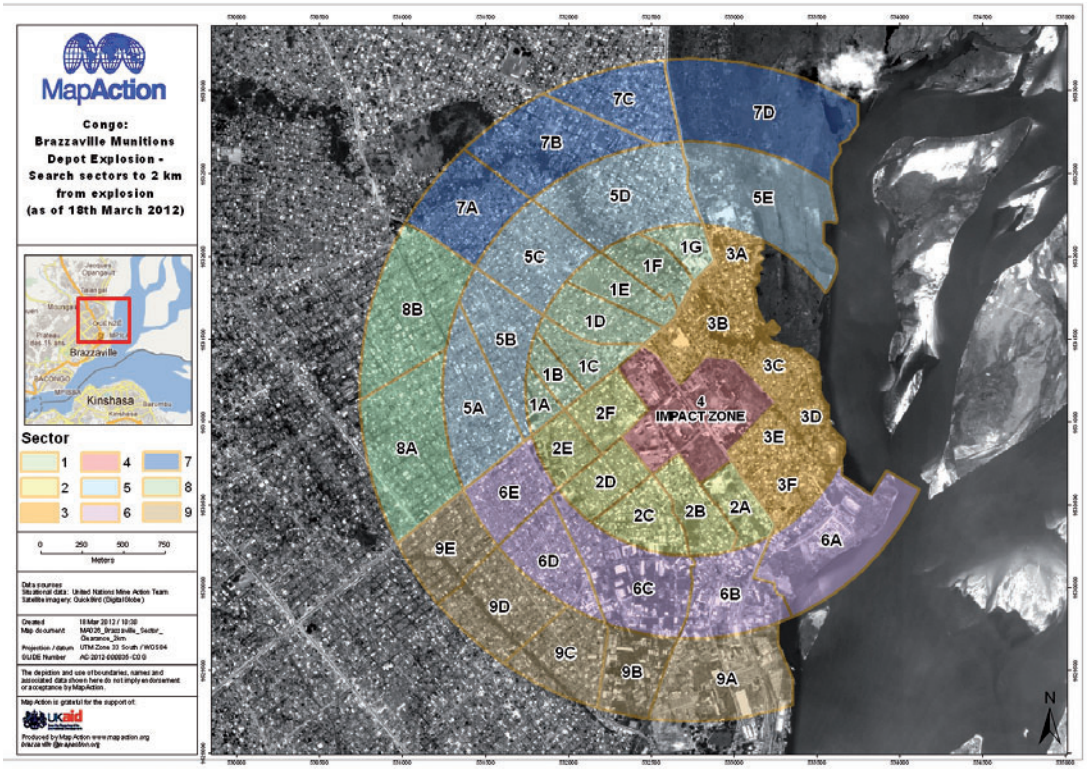
Regarding the crater task, a Standard Operating Procedure (SOP) has been written to allow the FAC teams, with the assistance of MSB, to undertake safe clearance of the site. Due to the nature of this task, it will remain a site specific SOP.

Information management

The Information Management System for Mine Action (IMSMA) is used to collect and analyse data. The UNMAT team are in the process of training national staff in data-entry. Initial training was conducted by MSB staff seconded to UNMAT. Future IMSMA[NG] support will be provided by Information Management staff from UNMAS Côte D'Ivoire.

Geographic Information Systems (GIS)

MapAction, a UK-based mapping NGO, supported emergency response efforts with GIS capacity to help map the location and needs of affected communities. Within hours of arrival into Brazzaville, MapAction produced a map showing the impact zone and surrounding areas, which was distributed to implementing partners. MapAction deployed to Brazzaville as a result of a request received by the UN's Disaster Assessment and Coordination team.[25]



Results

Results from UXO clearance and risk education activities as of mid September 2012[26] are as follows:

UXO removed	63,850
Small arms ammunition removed	911,502
Square metres cleared	982,996
EOD spot tasks	961
MRE sessions delivered	21,369
RE beneficiaries	122,957
Gross Net Explosive Quantity (NEQ) of destroyed items	94 tons

Funding

The donor response to the emergency was initially very quick and came from:

- UNDP BCPR through an emergency TRAC fund (UNDP regular resources) to support post disaster emergency coordination and response
- the UNMAS-managed Voluntary Trust Fund for mine action (VTF)
- MSB, who deployed a rapid response EOD team to support ICRC
- UNICEF received USD 2.8 million from the UN Central Emergency Response Fund (CERF), approximately USD 200,000 of which was used for emergency risk education [27]
- UNMAS received USD 1.35 million through the Central Emergency Response Fund. More than 75 per cent of these funds are being channelled to grants/contracts for implementing partners
- key contributions have also included ECHO, the British Embassy (in Kinshasa) and German government funding for MAG, a contribution from the Government of Japan, support from the French Government for HI and for Demeter from the Dutch Government

UNMAS took the lead in coordinating funding for the emergency by: providing an update to the Mine Action Support Group members and coordinating a Flash Appeal with the Office for the Coordination of Humanitarian Affairs (OCHA).

The main constraint encountered by emergency response efforts has been funding. This is partly because donors regard the Republic of Congo as a relatively wealthy country which should allocate funding for emergency response efforts from the national budget. On paper, the government has committed USD 4 million for clearance and a further USD 70 million for the rehabilitation of military barracks. A further 100 troops will be provided.

A future PSSM programme, managed through UNMAS, will depend on funding. It is likely however that MAG, HI and other military partners such as the US, France and Belgium will be involved.

FUTURE PLANS

UNMAS will likely operate in Congo-Brazzaville until the end of 2012 and then withdraw as it will be difficult for the organisation to justify a longer term presence given that Congo-Brazzaville is not a traditional UNMAS setting. Normally, UNMAS works in a country under a peacekeeping mandate or based on a request from the UN Resident Representative, which is the case in Congo-Brazzaville.

National Capacity Development

UNMAS plans to develop national EOD teams, to be trained and equipped by the end of 2012. This may require some follow up support from UNMAS. The US Government signalled it would launch an EOD and medical training project before the end of 2012. The Belgian Embassy also planned PSSM training in 2012 for 16 FAC logistics personnel. UNMAS also intends to provide medical training to the FAC which would benefit the military as a whole, as well as for EOD operations.

Future PSSM interventions, including the development of standards related to both IMAS and the IATG, are still under consideration by the Government of Congo. Bilateral military interventions are the most likely option.

LESSONS LEARNT AND CONCLUSION

Some of the main lessons that UNMAS and its partners have learnt as a result of their experiences responding to the ammunition depot explosions in Congo-Brazzaville include:

- In terms of coordinating the clearance work, it is vital that the response to such an emergency be rapid. The first two days or so are critical in terms of saving lives. This was achieved in Congo-Brazzaville because: UNMAS and its partners were able to quickly relay the message that the affected area had to be excluded for access; risk education teams were rapidly deployed; MAG was already on-site and was able to quickly mobilise its teams, along with rapid deployment of teams from Demeter, various militaries, the US government, ICRC, Benin, France, Angola, HI and MSB.
- When responding to emergencies of this nature, mine/ERW operators need to work in an open manner, sharing information and collaborating with each other, regardless of size/capacity. In such a context, all capacities need to be harnessed fully, and a spirit of cooperation is critical.
- Mine action organisations need to find practical options to get explosives and detonators into the field. In the case of Congo-Brazzaville, limited supplies were available in-country and UNMAS was able to procure additional supplies from the Democratic Republic of the Congo. However this is an issue that goes beyond Congo-Brazzaville and has for example, also been experienced by organisations working in Libya.
- Advocacy on PSSM should take place soon after such an emergency, as in such a context PSSM can slip off of the radar of implementing organisations, donors and perhaps most critically, the government. Taking time to advocate for a longer term PSSM programme with the government and with donors can reduce the risk of a future unplanned explosion. It is vital and necessary for sustainable results.

ENDNOTES

[1] This case study was written by Sharmala Naidoo with assistance from Albert S. Mülli (GICHD) based on desk-based research and interviews from June - September 2012.

[2] UNMAS. Republic of Congo (Brazzaville) – factsheet. May 2012.

[3] "Brazzaville picks up the pieces after ammo depot explosion", Wikinews, 4 April 2012.

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[5] UNMAS. Republic of Congo, 12 September 2012.

[6] Small Arms Survey. Unplanned Explosions at Munitions Sites, website, posted 1 June 2012. http://www.smallarmssurvey.org/?uems

[7] MAG. Where we work: Republic of Congo. Website, http://www.maginternational.org/roc#.UHasHK6iPt0, accessed 11 October 2012.

[8] Small Arms Survey. Unplanned Explosions at Munitions Sites, Research Note, RASR Initiative, January 2012.

[9] Lauren Tracey. Ticking time bombs: Ineffective weapons stockpile management in Africa. Institute for Security Studies, ISS Paper 223, April 2011.

[10] Paul Heslop (Chief of Programme, UNMAS). Congo-Brazzaville update – 9 March 2012 – email forwarded via the Mine Action AOR.

[11] UNMAS. Daily Brief – Republic of Congo, 13 March 2012.

[12] UNMAS. Daily Brief – Republic of Congo, 13 March 2012.

[13] UNMAS. Update regarding the mine action response in the Republic of Congo. 7 July 2012; Note that Phase 1 involved the clearance of the impact zone and Phase 2 focused on clearance for reconstruction support.

[14] UNMAT. The United Nations Mine Action Team in the Republic of Congo. Briefing Note, 1 May 2012.

[15] UNMAS. Republic of Congo (Brazzaville) – factsheet. May 2012.

[16] MAG. Republic of Congo: The problem. http://www.maginternational.org/roc/; accessed 13 July 2012.

[17] MAG. Brazzaville Response, Situation Report 1, 9 March 2012; Charles Frisby, email sent 1 September 2012.

[18] This was as a result of the support of the EU Delegation, who provided authorisation to reallocate funds from the Maya Maya project for the Mpila response.

[19] MAG. Republic of Congo: Helping communities and aid agencies after Brazzaville explosion. 1 June 2012.

[20] Handicap International. Congo-Brazzaville: "Munitions landed up to 3km from the dumps", 7 May 2012.

[21] International Committee of the Red Cross. Republic of the Congo: Clearing the stricken area and reuniting families, Operational Update, 23 March 2012.

[22] UNMAS. Update regarding the mine action response in the Republic of Congo, 7 July 2012.

[23] UNMAT, Republic of Congo, July 2012.

[24] Based on this experience, UNMAS recognises that a formal Quality Management system should be established after a one month period of operation instead of three.

[25] MapAction. Responding to Brazzaville Explosion, 12 March 2012.

[26] UNMAS. Republic of Congo, 12 September 2012.

[27] UN Central Emergency Response Fund. "CERF Gives $7 million to Republic of Congo Following Arms Depot Explosions", 30 April 2012.

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