

**CASE STUDIES  
OF EXPLOSIVE VIOLENCE**

Republic of Congo



Mpila munitions depot explosion, 4 March 2012





## Introduction

Explosive weapons are weapons that share common characteristics of affecting an area around a point of detonation, through a mixture of blast, fragmentation, and heat effects.<sup>1</sup> They include air-dropped bombs, artillery shells, mortar bombs, rockets, missiles, and improvised explosive devices (IEDs), amongst others, and share the capacity to inflict wide-ranging damage and destruction. When used in populated areas, their impacts are often indiscriminate and can cause severe immediate and long-term harm to civilians.<sup>2</sup>

This series of case studies builds upon previous research by Action on Armed Violence, which presented a compelling need for addressing the harm caused by explosive weapons in populated areas as a distinct humanitarian problem.<sup>3</sup> In 2011, AOA's 100 *Incidents of Humanitarian Harm* examined the broad pattern of harm caused by explosive weapons in populated areas. In 2012, AOA published *Monitoring Explosive Violence*, analysing a 12-month dataset of incidents of explosive violence recorded by AOA's Explosive Violence Monitoring Project (EVMP). The use of explosive weapons in populated areas was recorded to have killed and injured civilians on a daily basis in 2011.<sup>4</sup> However, data on the scale of deaths and injuries does not fully convey the diverse range of harm. People affected often suffer injuries with life-long impacts, psychological trauma, and socio- and economic harm through loss of livelihoods, displacement, and damage to infrastructure and vital services, as well as from the risks posed by unexploded ordnance (UXO).

This series, entitled *Case Studies of Explosive Violence*, explores some of these diverse impacts

on individuals and communities through photographs and interviews in three different contexts. The stories and images in this series illustrate both the immediate suffering caused by explosive weapons at the time of the incident as well as some of the indirect and longer lasting impacts. The reports cover a double IED attack on a shrine in Pakistan, an explosion in a stockpile of explosive weapons in the Republic of Congo, and the sustained bombardment of cities in Libya by explosive weapons with wide-area impacts.

These cases are only a snapshot of the continuing harm caused by explosive weapons. Each demonstrates the need for urgent action to address the problem of explosive weapons in populated areas and for the establishment of stronger international standards to protect civilians from the types of suffering documented here. This need is at the heart of a civil society call—through the International Network on Explosive Weapons (INEW)—for states and other actors to take immediate action to prevent human suffering from explosive weapons in populated areas.<sup>5</sup> In his 2012 report to the United Nations Security Council on the Protection of Civilians in Armed Conflict, the UN Secretary-General Ban Ki-moon called the humanitarian impact of such weapons “disastrous.” The report highlighted their use in Libya, Syria, Côte d’Ivoire, and Sudan, and urged parties to conflicts to refrain from using explosive weapons with a wide-area impact in densely populated areas. In tandem, Ban Ki-moon urged states, UN actors, international organizations, and NGOs to intensify their efforts on the issue, including through more focused discussion and further data collection and analysis.<sup>6</sup>

## Stockpiles

On the morning of 4 March 2012, a series of explosions at a large ammunition depot rocked a densely populated neighbourhood in Brazzaville, the capital city of the Republic of Congo. Thousands of people were killed and injured, and there was extensive damage to property and infrastructure. Explosive weapons stored in poorly managed and unsecured stockpiles present a significant risk of humanitarian harm, particularly when located in populated areas. Accidental explosions of these stockpiles are a global problem and have regularly caused large numbers of civilian casualties, enormous and costly damage to buildings and infrastructure, and scattered large amounts of unexploded ordnance (UXO) across wide areas.<sup>7</sup> Inadequately secured stockpiles also increase the risk of proliferation of explosive weapons, and can be a primary source of materials used to construct IEDs.<sup>8</sup>

The stockpile explosions in Mpila, Brazzaville were not an isolated incident. More than 300 unplanned explosions at munitions sites have been recorded in 76 countries between January 1998 and 31 October 2011.<sup>9</sup> According to one dataset, there was an average of three incidents every two months over the ten-year period from 1998-2007.<sup>10</sup> At least 1,000 people were killed in an explosion at an armoury located in a densely populated area of Lagos, Nigeria in January 2002. The United Nations noted that 27 schools were either damaged or completely destroyed by the explosions, and that shells had struck sites as far as 18km away.<sup>11</sup> In 2009 and again in 2011, Tanzania experienced two similar stockpile explosions in residential areas of the capital city Dar es Salaam, which between them displaced 25,000 people.<sup>12</sup> In India, 30,000 people had to be evacuated after an explosion at an ammunition depot in Kashmir in 2007.<sup>13</sup>

In the Mpila depot explosions in Brazzaville, one of the steel-framed breezeblock buildings reportedly contained as many as thirty Soviet-manufactured OFAB 250 aircraft bombs.<sup>14</sup> The explosion of these weapons alone created a crater more than 70 metres wide and eight metres deep. Each of these bombs are up to 1.49m in length and contain 94kg of high explosives, meaning that in one storage building alone there were three tonnes of explosives.<sup>15</sup> The blasts caused widespread destruction within a 1km radius of the epicentre, with rockets and projectile

'kick-outs' found up to 2.8km away.<sup>16</sup> There was no fence around the site and the buildings that contained the munitions were unprotected by blast walls or earthworks. Ammunition was stacked to the ceilings and there was no effort to separate ammunition by type or by net explosive quantity (NEQ).<sup>17</sup>

AOAV has outlined in previous reports how *"the mere presence of explosive weapons in populated areas can create risks of harm for those nearby."*<sup>18</sup> This case study demonstrates clearly the need for increased efforts from the international community and by states at the national level to address the issue of ineffective and inadequate stockpile management to prevent future tragedies such as the one experienced by the residents of Brazzaville.

Research for this case study was carried out in March 2012 by Simon Conway, former Director of Landmine Action (now Action on Armed Violence). Mr Conway conducted research through a visit to Brazzaville and through interviews with survivors, medical officials, and humanitarian aid-workers. AOA has compiled Mr Conway's research with media reports in this case study.

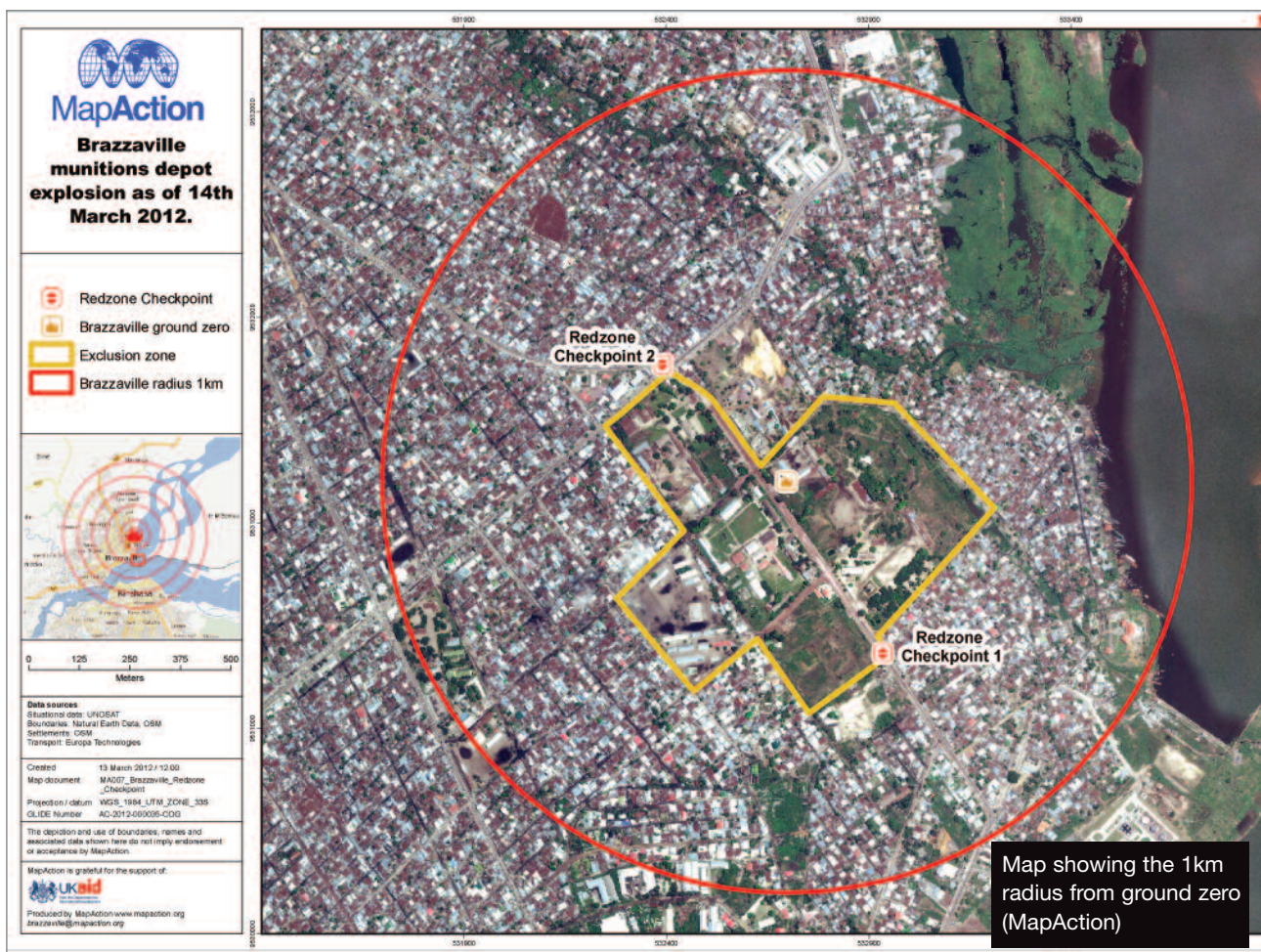
***These stockpiles can form a double problem in themselves. Where researched, it has been demonstrated that much of the ammunition circulating among armed non-State actors has been illicitly diverted from State security forces. And warehouses of ammunition, sometimes placed in densely populated areas, have recently exploded in a number of countries, including Afghanistan, Albania, Mozambique and Nigeria, causing thousands of casualties.***<sup>19</sup>

**Ban Ki-moon,**  
UN Secretary-General, April 2008



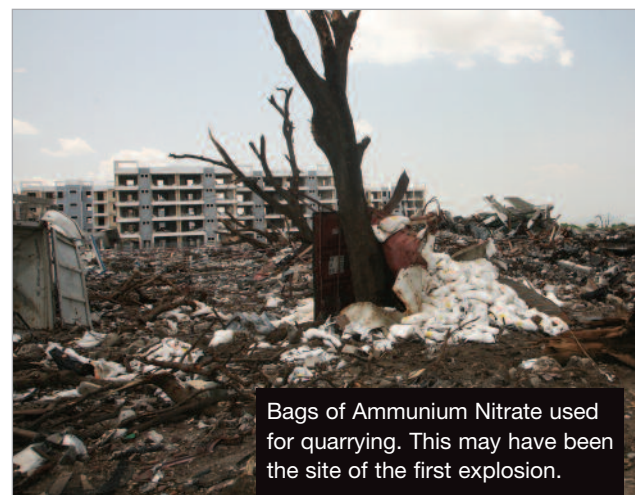
## The Explosion

At 8am in the morning of Sunday, 4 March 2012, in a riverside neighbourhood of Brazzaville, several blasts occurred in a munitions stockpile at the Mpila barracks.



The surrounding districts of Talangai and Ouenzé are some of the most densely populated in the city and are home to over 350,000 residents.<sup>20</sup>

Witnesses described seeing a bright pillar of flame shooting up into the sky followed by three explosions of increasing magnitude and a cloud of soot that enveloped the surrounding area, making it difficult to see. Because it was a Sunday many people were either in church or were on their way there. Others were at home, asleep, or having breakfast. After the first explosion many people assumed that the city was under attack. They ran from collapsing buildings and sheltered in the street or sought refuge in the shallows of the Congo River.





It is still not clear what actually happened on the morning of 4 March. Guards who fled the site reported that the explosive detonations happened as a result of a fire that broke out in one of the buildings on the barracks site.<sup>21</sup> Several sources have blamed the fire on an electrical short circuit.<sup>22</sup> There is speculation that the pillar of flame reported by witnesses was caused by ammonium nitrate, used by civilian contractors for quarrying, that was being temporarily stored on the site. Sacks of Orange Label ammonium nitrate were found scattered around one of the craters.<sup>23</sup>

Several vehicles on the site also contained ammunition. Two of the T55 tanks and all the ZSU self-propelled anti-aircraft guns at the depot were battle-ready, fully loaded with ammunition.



This tank was adjacent to the largest crater at the centre of the site.

## Casualties

On 14 March, the Ministry of Social and Humanitarian Affairs reported official casualty figures of 223 people killed and 2,313 injured. The press attaché for the Ministry confirmed these statistics on the 29 March.<sup>24</sup> However, by 22 March, International Committee of the Red Cross (ICRC) forensic specialists had identified 288 corpses at the Brazzaville mortuary, with a further 15 persons still unidentified.<sup>25</sup> On Friday, 30

March, there were more than 240 freshly-dug graves in the Brazzaville Centre Ville Cemetery.<sup>26</sup> On 2 April, the ICRC raised its estimate of the death toll to 292.<sup>27</sup>

The true number of dead is likely to remain unknown. Some bodies may have been removed by relatives to their villages of origin for burial and did not pass through the city mortuary.



Centre Ville Cemetery

### MARINA OGNAMI

was singing in the choir at the Church of St Louis in Mpila, close to the barracks' perimeter, when members of the congregation became aware of a fierce fire. Two to three minutes later the first explosion occurred. She tried to escape the church but was knocked unconscious by falling masonry. Members of the congregation pulled her out from under the rubble and a passing driver took her to hospital where her leg was amputated.



### ZEPHERIN MBEMBA

works in a nearby liquor store and was there when the first explosion happened. He ran out of the shop and took shelter in the road, which quickly became crowded with people. When the next explosion happened he was next to a wall that collapsed, killing two young women beside him. Many more were injured. Initially a taxi took him to the military hospital but he was turned away and arrived at Centre Hospitalier Universitaire de Brazzaville (CHU).

### ESTHER BASINZAMOY

was at a service at the church opposite the military camp. After the first explosion the roof of the church fell in. It was very dark and her leg was trapped. She was rescued by members of the congregation and taken to a medical clinic run by the pastor. She stayed there until 2pm when she was taken by taxi to the hospital. She had two fractures to her leg. The care in the hospital is free but her family has to pay for her medicines.





## Health care impacts

The explosion placed an enormous strain on public health and emergency medical services. The hospital closest to the blast, Hôpital de Talangaï, was badly damaged in the explosions and was evacuated on the afternoon of the explosion. The nearby Clinique Municipale Albert Leyono suffered superficial damage, including broken windows, but remained open. Because it was a Sunday the hospitals were not fully staffed and the sheer number of casualties was very difficult to deal with. According to staff they were quickly overwhelmed and at one point the central military hospital was forced to turn people away.



Hôpital de Talangaï



Talangaï hospital pharmacy, badly damaged in the explosion



***We were not so well prepared. We received too many victims at the same time but we managed. The majority of the cases that we saw were fractures caused by collapsing houses and fragmentation.<sup>28</sup>***

Marie Keane Manoya-Iboua, Head Nurse, remained on duty at the Centre Hospitalier Universitaire de Brazzaville, from 4-6 March before finally going home



## Displacement

The explosion displaced thousands of people who either made their way to camps set up in the aftermath of the explosions or found lodging with host families. The camps were reportedly overcrowded and sanitary conditions quickly deteriorated with the onset of rain. There were cases of cholera reported at the Sacré-Coeur Cathedral soon afterwards.<sup>29</sup> Initially there were eleven internally displaced persons

(IDP) camps but by 27 March the number had reduced to eight official camps that were hosting 14,000 people, according to the Ministry of Social and Humanitarian Affairs.<sup>30</sup> In addition to those in camps, the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) estimated that as many as 100,000 people found temporary lodging with host families or in guesthouses or left Brazzaville.<sup>31</sup>



People shelter from the sun in a displacement camp in central Brazzaville

*I don't even have a piece of plastic sheeting to create some shade.<sup>32</sup>*

Chantal, a mother of five, told UNHCR in the city's Nkombo market where her family was living



Displaced families at a camp near Sacré-Coeur Cathedral





### ROZAND ROLLY

was having breakfast in her house when the first explosion occurred. She thought it was a plane crash and rushed outside to see what happened. It was very dark and after the second explosion, her house collapsed. Her neighbour's baby was killed. Residents ran in every direction and Rozand fled in panic, leaving behind her one year old baby. She ran to the cathedral for shelter and fortunately when she returned to the ruins of her house, she found her baby alive and crying in the rubble.



### FANNY OBA

was with her husband and five children in their cement brick house when the first explosion happened. The walls of the house fell in, trapping them under their bed. Eventually neighbours dug them out and drove them to the CHU hospital where her husband was admitted to one of the wards with two broken legs.



### GISELLE BOKYENDZE

is divorced with six children who she supports by means of small stall in front of her house. Both her house and the stall were destroyed in the blast. She now fears how she will support her children.



## Damage to infrastructure and property



*The second explosion was the biggest one. There was a cloud of dust and you couldn't see. Everyone was running.<sup>33</sup>*

Bienvenu Elenga, standing in front of the ruins of his house



A grocer and a hairdresser destroyed in the blast

The combination of fragmentation and blast destroyed residential buildings, stalls and shops, schools, local government buildings, hospitals and health clinics, churches, and damaged infrastructure including vital public utilities (water mains and electricity networks).

The affected districts of Brazzaville are amongst the poorest and most densely populated in the city. According to the Ministry of Social Affairs, 4,800 family compounds were destroyed.<sup>34</sup>



Sign showing the site of the former Bokatola family home





***It will be difficult to prepare for the examinations, we have lost our houses and all that we need.<sup>35</sup>***

Chinella Galoy, a 19-year-old student

The Lycée de la Révolution school was destroyed in the blast. If the explosion had happened on a Monday instead of Sunday, it would have been packed with children and the casualty toll would likely have been far higher. Five thousand students normally attend the school and 1,400 of whom were due to take their leaving exams. Although they were able to be transferred to another college, the transport allowance provided by the government was only sufficient to cover fares for ten days.<sup>36</sup>





## Compensation and victim assistance

On the final day of a week of national mourning declared after the incident, the President of the Republic of Congo announced that compensation would be paid to those affected.<sup>37</sup>



Lists of those eligible for emergency financial support of three million Central African Francs (CFA) (approximately GBP 3,500) were posted on walls around the city and published in the newspapers. A government minister, Pierre Moussa, confirmed that this money was a living allowance and separate to compensation which was still to be decided.<sup>38</sup> Congolese police used tear gas to disperse protests from people waiting to receive financial support. One protester said: *“The payment is taking too long. It must happen quickly because there are people who lost their homes and other essential items.”*<sup>39</sup>

There were anecdotal reports that the police demanded bribes to allow people to access the list and register for compensation.<sup>40</sup> On several occasions explosive ordnance disposal work had to be suspended because of civil unrest linked to the government compensation payments for those who have been displaced from their homes.<sup>41</sup>

## Explosive Remnants of War (ERW)

*Much of the content of the munitions depot has been spread out over the city. This level of contamination is a huge risk to the public – there are deadly items in a potentially unstable condition.*<sup>42</sup>

Lionel Cattaneo,  
Mines Advisory Group (MAG).



As well as the high number of casualties and widespread destruction caused with the initial explosions, the blasts caused extensive contamination by explosive ordnance, including rockets, artillery and tank shells, grenades, and rocket propelled grenades (RPGs).

The danger of unexploded munitions prevented Red Cross workers from accessing the blast site

and recovering the wounded.<sup>43</sup> The presence of such large numbers of ERW also prevented thousands of people from returning to their homes and closed schools which had withstood the blast until inspections could be made.<sup>44</sup> The contamination was heaviest in the immediate area of the barracks but kick-outs were found up to 2.8km from the epicentre. Mines Advisory Group reported that they removed 259,767 dangerous items during April alone.<sup>45</sup>



## Conclusion

The stockpile explosions in Brazzaville on 4 March 2012, which killed hundreds and injured thousands of civilians, also had a devastating impact on the residents of the city that will continue to be felt for years. Several months later, thousands of people were still living in displacement camps across the city, where the spread of disease further endangered their safety. Many had their homes and belongings completely destroyed by the blast, and must wait for their homes to be rebuilt in a different part of the city. The destruction of schools like the Lycée de la Révolution

will continue to impact the future education of the children of Brazzaville. This explosion, while particularly severe in the scale of its impacts, is not an uncommon tragedy. Unintended explosions at munitions sites are a global problem and a persistent threat to the safety of civilians, especially in populated areas.

States and other actors must take urgent action to ensure that the harm to civilians seen in Brazzaville is not repeated and that assistance is provided to victims and survivors.

There are a number of existing instruments that seek to address the issues surrounding stockpile management. In 2011, in response to recommendations from a 2008 UN Group of Governmental Experts on conventional ammunition in surplus, the United Nations *SaferGuard* Programme published a series of International Ammunition Technical Guidelines (IATG) to support safer stockpile management.<sup>46</sup> Protocol V to the UN Convention on Certain Conventional Weapons (CCW) can also provide a platform for international cooperation and assistance on the issue of stockpile management and contains best practice guidelines on munitions management.<sup>47</sup> The Mine Ban Treaty and Convention on Cluster Munitions are additional vehicles through which international assistance can be channelled for the destruction of stockpiles of two types of explosive weapons banned under international law.<sup>48</sup>

Other guidelines and standards have been developed through regional frameworks such as the Organization for Cooperation and Security in Europe (OSCE), the South Eastern and Eastern European Clearinghouse for the Control of Small Arms and Light Weapons (SEESAC), and NATO's Partnership for Peace (PfP) and Maintenance and Supply Agency (NAMSA).<sup>49</sup> African regional initiatives contain provisions relating to stockpile management, though mainly on small arms and light weapons (SALW), include the 2001 Southern African Development Community's (SADC) Protocol on the Control of Firearms, Ammunition,

and Other Related Materials, the 2004 Nairobi Protocol for the Prevention, Control, and Reduction of Small Arms and Light Weapons in the Great Lakes Region and the Horn of Africa, and the 2006 Economic Community of West African States (ECOWAS) Convention on Small Arms and Light Weapons, Their Ammunition, and Other Related Materials.<sup>50</sup>

Operationally, along with the OSCE, NATO, and direct bilateral assistance from individual states, the UN Development Programme (UNDP), the Geneva International Centre for Humanitarian Demining (GICHD), and NGOs such as Mines Advisory Group (MAG) and Norwegian People's Aid (NPA) and others are actively involved in supporting states to destroy surplus and unsafe stockpiles and to improve their management practices. Others such as the Small Arms Survey act as an information clearinghouse and offer a range of resource-based materials for practitioners and stakeholders.<sup>51</sup>

According to the Small Arms Survey, the majority of policy and operational engagements in this area however have focused on the security threat of unsecured SALW, rather than on larger calibre ammunition and other explosives, which can present greater risks of explosions and threats to security. Medium to larger calibre ammunition is estimated to make up 70 percent of national stockpiles.<sup>52</sup>

Analysts warn that the frequency of stockpile explosions is increasing.<sup>53</sup> AOAV calls on states and the international community to place greater efforts on preventing such disasters as seen in the example of the explosions in Brazzaville. The costs necessary to take measures to improve stockpile management and safety, or to relocate stockpiles away from populated areas are outweighed by the extremely high costs of recovery following an unplanned explosive incident. The costs of clearing land, rebuilding damaged and destroyed infrastructure, homes and services, the drain on health services and emergency aid

provision, along with the costs of health and socioeconomic services needed by victims and survivors, are just some of the associated expenses. On 30 April 2011, the UN Office for the Coordination of Humanitarian Affairs (UNOCHA) reported that USD 7 million had been allocated to UN agencies involved in relief work in Brazzaville after the incident.<sup>54</sup> The total costs of recovery for the residents around the Mpila barracks however are unquantifiable in terms of the human costs to lives and livelihoods and are likely to be felt for some time to come.



AOAV believes that the harm caused by explosive weapons is both predictable and preventable. In order to address this harm in a comprehensive manner, greater efforts are urgently needed aimed at preventing further human suffering from the use, stockpiling, and contamination from explosive weapons. At the same time, greater efforts should be taken to address the existing harm caused by explosive weapons through assistance to victims and survivors in recovery and toward inclusion in society.

AOAV is a founding member of the International Network on Explosive Weapons (INEW), which calls for immediate action to prevent human suffering

from explosive weapons in populated areas.

States and other actors should:

1. Acknowledge that use of explosive weapons in populated areas tends to cause severe harm to individuals and communities and furthers suffering by damaging vital infrastructure;
2. Strive to avoid such harm and suffering in any situation, review and strengthen national policies and practices on use of explosive weapons and gather and make available relevant data;
3. Work for full realisation of the rights of victims and survivors;
4. Develop stronger international standards, including certain prohibitions and restrictions on the use of explosive weapons in populated areas.

## NOTES

- 1 The characteristics of explosive weapons are further detailed in Maya Brehm and John Borrie, "Explosive Weapons: Framing the Problem," Background Paper No 1 of the Discourse on Explosive Weapons (DEW) project, UNIDIR, [explosiveweapons.info/wp-content/uploads/2011/04/DEW-paper-No-1.pdf](http://explosiveweapons.info/wp-content/uploads/2011/04/DEW-paper-No-1.pdf)
- 2 The term populated area is based on the definition in Protocol III of the 1980 Convention on Certain Conventional Weapons (CCW) of a concentration of civilians as : *any concentrations of civilians, be it permanent or temporary such as in inhabited parts of cities, or inhabited towns or villages, or as in camps or columns of refugees or evacuees, or group of nomads.*" "Protocol on prohibitions or restrictions on the use of incendiary weapons (Protocol III)," 10 October 1980, [www.icrc.org/ihl.nsf/FULL/515](http://www.icrc.org/ihl.nsf/FULL/515)
- 3 "Explosive violence: the problem of explosive weapons" (2009) established explosive weapons as a category, identifying a common series of effects which follow their use in populated areas. Richard Moyes, "Explosive Violence: the problem of explosive weapons," Landmine Action, [www.aoav.org.uk/uploads/changing\\_policy/august\\_2009\\_explosive%20violence\\_the\\_problem\\_of\\_explosive\\_weap.pdf](http://www.aoav.org.uk/uploads/changing_policy/august_2009_explosive%20violence_the_problem_of_explosive_weap.pdf)
- 4 AOAV found that at least 21,499 civilians were killed or injured by explosive weapons in 2011. Henry Dodd and Robert Perkins, "Monitoring Explosive Violence: The EVMP dataset 2011," AOAV, March 2012, [www.aoav.org.uk/uploads/changing\\_policy/reports/Monitoring%20Explosive%20Violence%202011.pdf](http://www.aoav.org.uk/uploads/changing_policy/reports/Monitoring%20Explosive%20Violence%202011.pdf)
- 5 International Network on Explosive Weapons, "Call Commentary," [www.inew.org/about-inew/inew-call-commentary](http://www.inew.org/about-inew/inew-call-commentary)
- 6 United Nations Secretary-General Ban Ki-moon, in "Report of the Secretary-General on the protection of civilians in armed conflict," UN Security Council, S/2012/376, 22 May 2012, [www.un.org/Docs/sc/sgrep12.htm](http://www.un.org/Docs/sc/sgrep12.htm)
- 7 Adrian Wilkinson, "Stockpile Management: Disposal and Destruction," Chapter 9 in James Bevan (Ed.) *Conventional Ammunition in Surplus. A Reference Guide*, Small Arms Survey, January 2008, [www.smallarmssurvey.org/fileadmin/docs/D-Book-series/book-05-Conventional-Ammo/SAS-Conventional-Ammunition-in-Surplus-Book-11-Chapter-9.pdf](http://www.smallarmssurvey.org/fileadmin/docs/D-Book-series/book-05-Conventional-Ammo/SAS-Conventional-Ammunition-in-Surplus-Book-11-Chapter-9.pdf)
- 8 Adrian Wilkinson, James Bevan, and Ian Biddle, "Improvised Explosive Devices (IEDs): An Introduction," Chapter 14 in James Bevan (Ed.) *Conventional Ammunition in Surplus. A Reference Guide*, Small Arms Survey, January 2008, [www.smallarmssurvey.org/fileadmin/docs/D-Book-series/book-05-Conventional-Ammo/SAS-Conventional-Ammunition-in-Surplus-Book-11-Chapter-9.pdf](http://www.smallarmssurvey.org/fileadmin/docs/D-Book-series/book-05-Conventional-Ammo/SAS-Conventional-Ammunition-in-Surplus-Book-11-Chapter-9.pdf)
- 9 Small Arms Survey, "Unplanned Explosions at Munitions Sites," January 2012, [www.smallarmssurvey.org/fileadmin/docs/H-Research\\_Notes/SAS-Research-Note-6.pdf](http://www.smallarmssurvey.org/fileadmin/docs/H-Research_Notes/SAS-Research-Note-6.pdf)
- 10 Small Arms Survey, "Unplanned Explosions at Munitions Sites," 1 June 2012, [www.smallarmssurvey.org/?uems](http://www.smallarmssurvey.org/?uems)
- 11 United Nations Disaster Assessment and Coordination Team, "UNDAC Mission to Lagos Nigeria: Munitions Depot Explosion Environmental and Humanitarian Assessment Report," 7 February 2012, <http://ochanet.unocha.org/p/Documents/NigeriaUNDACreport.pdf>
- 12 Five thousand people were reported to have been displaced in the 2011 explosion and twenty thousand in 2009. "At least 20 killed in Tanzania," *AFP*, 17 February 2011, <http://reliefweb.int/node/389133> and Howard Lesser, "Tanzania blast victims seek urgent resettlement aid," *Voice of America*, 26 May 2009, <http://reliefweb.int/node/310500>
- 13 Mukhtar Ahmed & Agencies, "Two Soldiers Killed as Fire Destroys Kashmir Arms Depot," *Arab News*, 13 August 2007, [www.arabnews.com/node/301891](http://www.arabnews.com/node/301891)
- 14 Research conducted by Simon Conway, Brazzaville, 26-31 March 2012.
- 15 Robert Hewson (Ed.), Jane's, "Air-launched weapons," Issue 49, March 2007, p. 317.
- 16 Interview conducted by Simon Conway with Mark Connelly, UNMAS, 31 March 2012.
- 17 Interview conducted by Simon Conway with Mark Connelly, UNMAS, 31 March 2012.
- 18 Esther Cann and Katherine Harrison, "100 Incidents of Humanitarian Harm," AOAV, March 2011, [www.aoav.org.uk/uploads/changing\\_policy/march\\_2011\\_100\\_incidents\\_of\\_humanitarian\\_harm.pdf](http://www.aoav.org.uk/uploads/changing_policy/march_2011_100_incidents_of_humanitarian_harm.pdf)
- 19 United Nations Secretary-General Ban Ki-moon, "Report of the Secretary-General on Small Arms," United Nations Security Council, S/2008/258, April 2008, [www.poa-iss.org/DocsUpcomingEvents/S-2008-258.pdf](http://www.poa-iss.org/DocsUpcomingEvents/S-2008-258.pdf)
- 20 ICRC, "Republic of the Congo: clearing the stricken area and reuniting families," 22 March 2012, [www.icrc.org/eng/resources/documents/update/2012/congo-brazzaville-update-2012-03-22.htm](http://www.icrc.org/eng/resources/documents/update/2012/congo-brazzaville-update-2012-03-22.htm)
- 21 Adam Nossiter, "Explosions at Congo weapons depot kill scores," *New York Times*, 4 March 2012, [www.nytimes.com/2012/03/05/world/africa/explosion-at-arms-depot-rocks-congo-capital.html](http://www.nytimes.com/2012/03/05/world/africa/explosion-at-arms-depot-rocks-congo-capital.html)
- 22 "'Short-circuit' caused Congo's deadly arms depot blasts," *BBC*, 5 March 2012, [www.bbc.co.uk/news/world-africa-17254551](http://www.bbc.co.uk/news/world-africa-17254551)



- 23 Orange Label Anopril is a high quality porous prilled Ammonium Nitrate for use in the manufacture of explosives such as ammonium nitrate/fuel oil (ANFO) and heavy ANFO.
- 24 Comment made to Francky Miantula during meeting with Mr Jean Crepin Pere Pere, Attaché de Presse of Social Affairs, evening of 29 March 2012.
- 25 ICRC, "Republic of the Congo: clearing the stricken area and reuniting families," 22 March 2012, [www.icrc.org/eng/resources/documents/update/2012/congo-brazzaville-update-2012-03-22.htm](http://www.icrc.org/eng/resources/documents/update/2012/congo-brazzaville-update-2012-03-22.htm)
- 26 Research conducted by Simon Conway, Brazzaville, 30 March 2012.
- 27 "75 children sought weeks after Rep. of Congo blast," *The Associated Press*, 2 April 2012, [www.salon.com/2012/04/02/75\\_children\\_sought\\_weeks\\_after\\_rep\\_of\\_congo\\_blast/](http://www.salon.com/2012/04/02/75_children_sought_weeks_after_rep_of_congo_blast/)
- 28 Interview conducted by Simon Conway with Marie Keane Manoya-Iboua on 29 March 2012.
- 29 As of 2 April, there were ten cases of cholera confirmed. "Congo: Cholera hits munitions blast displaced," *IRIN*, 2 April 2012, [www.irinnews.org/Report/95225/CONGO-Cholera-hits-munitions-blast-displaced](http://www.irinnews.org/Report/95225/CONGO-Cholera-hits-munitions-blast-displaced)
- 30 Céline Schmitt, "Congo arms depot blast victims crowd shelter sites in Brazzaville," UN High Commissioner for Refugees, posted by *Reliefweb*, 12 March 2012, <http://reliefweb.int/node/482489>
- 31 Interview conducted by Simon Conway with Medard Lobota, Associate Humanitarian Affairs Officer, UNOCHA, March 2012
- 32 Céline Schmitt, "Congo arms depot blast victims crowd shelter sites in Brazzaville," UN High Commissioner for Refugees, posted by *Reliefweb*, 12 March 2012, <http://reliefweb.int/node/482489>
- 33 Interview conducted by Simon Conway with Bienvenu Elenga, March 2012
- 34 Comment made to Francky Minatuala during meeting with Mr Jean Crepin Pere Pere, Attaché de Presse of Social Affairs, evening of March 29th, 2012
- 35 "Thousands still homeless after munitions blast," *IRIN*, 23 March 2012, <http://reliefweb.int/node/485042>
- 36 "Thousands still homeless after munitions blast," *IRIN*, 23 March 2012, <http://reliefweb.int/node/485042>
- 37 Robert Mbakouo, "Congo Will Pay 3 million Francs to blast victims' families," *Bloomberg*, 9 March 2012, [www.bloomberg.com/news/2012-03-09/congo-will-pay-3-million-francs-to-blast-victims-families.html](http://www.bloomberg.com/news/2012-03-09/congo-will-pay-3-million-francs-to-blast-victims-families.html)
- 38 Robert Mbakouo, "Congo Will Pay 3 Million Francs to Blast Victim's Families," *Bloomberg*, 9 March 2012, [www.bloomberg.com/news/2012-03-09/congo-will-pay-3-million-francs-to-blast-victims-families.html](http://www.bloomberg.com/news/2012-03-09/congo-will-pay-3-million-francs-to-blast-victims-families.html)
- 39 "Police use tear gas on protesting Congolese blast survivors," *AFP*, posted by *Reliefweb*, 26 March 2012 <http://reliefweb.int/node/485624>
- 40 Research conducted by Simon Conway, Brazzaville, March 2012.
- 41 Interview conducted by Simon Conway with Mark Connelly, UNMAS, March 2012
- 42 "3 days after Rep. of Congo blast, no rescue effort," *Associated Press*, 7 March 2012, [www.usatoday.com/news/world/story/2012-03-07/congo-explosions-no-rescue-effort/53398382/1](http://www.usatoday.com/news/world/story/2012-03-07/congo-explosions-no-rescue-effort/53398382/1)
- 43 Patrick Fort and Laudes-Martial Mbon, "Safety fears delay search for survivors at Congo blast site," *AFP*, 7 March 2012, <http://reliefweb.int/node/481194>
- 44 Mines Advisory Group, "Communities still at risk after Brazzaville explosion; aid agencies hampered," 1 June 2012, [www.trust.org/alertnet/news/communities-still-at-risk-after-brazzaville-explosion-aid-agencies-hampered/](http://www.trust.org/alertnet/news/communities-still-at-risk-after-brazzaville-explosion-aid-agencies-hampered/)
- 45 Mines Advisory Group, "Communities still at risk after Brazzaville explosion; aid agencies hampered," 1 June 2012, <http://reliefweb.int/node/500754>
- 46 See "International Ammunitions Technical Guidelines, First Edition (2011-10-01)" UN *SaferGuard* Programme, [www.un.org/disarmament/convarms/Ammunition/IATG/](http://www.un.org/disarmament/convarms/Ammunition/IATG/). The guidelines were developed in response to the report: UN General Assembly A/63/182, "Problems arising from the accumulation of conventional ammunition stockpiles in surplus," 28 July 2008. The Group was mandated by A/RES/61/72, "Problems arising from the accumulation of conventional ammunition stockpiles in surplus," 6 December 2006. France and Germany have also co-sponsored several General Assembly resolutions encouraging states to assess whether parts of their stockpiles are in surplus, and to recognise that "appropriate controls with regard to the security and safety of stockpiles of conventional ammunition are indispensable." See for example: UN General Assembly Resolution 64/51, "Problems arising from the accumulation of conventional ammunition stockpiles in surplus," 12 January 2010, [www.un.org/en/ga/64/resolutions.shtml](http://www.un.org/en/ga/64/resolutions.shtml)
- 47 "Protocol V on Explosive Remnants of War (Protocol V to the 1980 Convention on Certain Conventional Weapons)," 28 November 2003, [www.icrc.org/ihl.nsf/FULL/610](http://www.icrc.org/ihl.nsf/FULL/610); See also Katherine Harrison and Richard Moyes, "Ambiguity in Practice: benchmarks for the implementation of CCW Protocol V," *Landmine Action*, November 2009, [www.landmineaction.org/resources/UKWGLM\\_21503\(1\).pdf](http://www.landmineaction.org/resources/UKWGLM_21503(1).pdf)
- 48 1997 Convention on the Prohibition on the Use, Stockpiling, Production, and Transfer of Antipersonnel Mines and on their Destruction, [www.un.org/Depts/mine/UNDocs/ban\\_trty.htm](http://www.un.org/Depts/mine/UNDocs/ban_trty.htm), and 2008 Convention on Cluster Munitions, [www.icrc.org/ihl.nsf/FULL/620](http://www.icrc.org/ihl.nsf/FULL/620)
- 49 For more details on initiatives on stockpile management see: James Bevan, "Ammunition-related Political Developments," Chapter 1 in James Bevan (Ed.), *Conventional Ammunition in Surplus. A Reference Guide*, Small Arms Survey, January 2008, [www.smallarmssurvey.org/fileadmin/docs/D-Book-series/book-05-Conventional-Ammo/SAS-Conventional-Ammunition-in-Surplus-Book-03-Chapter-1.pdf](http://www.smallarmssurvey.org/fileadmin/docs/D-Book-series/book-05-Conventional-Ammo/SAS-Conventional-Ammunition-in-Surplus-Book-03-Chapter-1.pdf), Benjamin King (ed.), "Safer Stockpiles Practitioners' Experiences in Physical Security and Stockpile Management (PSSM) Assistance Programmes," Small Arms Survey, April 2011, <http://www.smallarmssurvey.org/fileadmin/docs/B-Occasional-papers/SAS-OP27-Safer-Stockpiles.pdf>, and resources available at Small Arms Survey, "Stockpile Management and Security," website, [www.smallarmssurvey.org/regulations-and-controls/control-measures/pssm.html](http://www.smallarmssurvey.org/regulations-and-controls/control-measures/pssm.html)
- 50 For more details on initiatives on stockpile management see: James Bevan, "Ammunition-related Political Developments," Chapter 1 in James Bevan (Ed.), *Conventional Ammunition in Surplus. A Reference Guide*, Small Arms Survey, January 2008, [www.smallarmssurvey.org/fileadmin/docs/D-Book-series/book-05-Conventional-Ammo/SAS-Conventional-Ammunition-in-Surplus-Book-03-Chapter-1.pdf](http://www.smallarmssurvey.org/fileadmin/docs/D-Book-series/book-05-Conventional-Ammo/SAS-Conventional-Ammunition-in-Surplus-Book-03-Chapter-1.pdf) and resources available at Small Arms Survey, "Stockpile Management and Security," website, [www.smallarmssurvey.org/regulations-and-controls/control-measures/pssm.html](http://www.smallarmssurvey.org/regulations-and-controls/control-measures/pssm.html). The Republic of Congo is itself a signatory of the Central African Convention for the Control of Small Arms and Light Weapons, their Ammunition, Parts and Components that can be used for their Manufacture, Repair or Assembly (or Kinshasa Convention) and has obligations under Article 16 to "maintain the security of depots and ensure the proper management of stockpiles of small arms and light weapons [and] their ammunition." However, as of 23 May 2012, the treaty had not yet had received sufficient ratifications to enter into force.
- 51 See Small Arms Survey website, "Stockpile Management and Security," [www.smallarmssurvey.org/regulations-and-controls/control-measures/pssm.html](http://www.smallarmssurvey.org/regulations-and-controls/control-measures/pssm.html)
- 52 Adrian Wilkinson (2008), "Stockpile Management: Disposal and Destruction," Chapter 9 in James Bevan (Ed.), *Conventional Ammunition in Surplus. A Reference Guide*, Small Arms Survey, January 2008, pp. 87 and 93, [www.smallarmssurvey.org/fileadmin/docs/D-Book-series/book-05-Conventional-Ammo/SAS-Conventional-Ammunition-in-Surplus-Book-11-Chapter-9.pdf](http://www.smallarmssurvey.org/fileadmin/docs/D-Book-series/book-05-Conventional-Ammo/SAS-Conventional-Ammunition-in-Surplus-Book-11-Chapter-9.pdf)
- 53 Small Arms Survey, "Unplanned Explosions at Munitions Sites," January 2012, [www.smallarmssurvey.org/fileadmin/docs/H-Research\\_Notes/SAS-Research-Note-6.pdf](http://www.smallarmssurvey.org/fileadmin/docs/H-Research_Notes/SAS-Research-Note-6.pdf). According to the Small Arms Survey, the rate has increased in recent years to more than one every two weeks. During 2011, the average number of explosions increased to 3.8 per month, the highest rate recorded in a calendar year. The Small Arms Survey notes that it is unclear if the problem is increasing or if reporting on incidents is improving, however, it is certain that the number of incidents is not decreasing despite efforts to address the problem.
- 54 UN Office for the Coordination of Humanitarian Affairs, "Congo (the): CERF gives \$7 million to Republic of Congo following arms depot explosions," posted by *Reliefweb*, 30 April 2011, <http://reliefweb.int/node/495571>



## CONTACT

### Action on Armed Violence

5th Floor, Epworth House  
25 City Road  
London EC1Y 1AA

**T** +44 (0)20 7256 9500

**F** +44 (0)20 7256 9311

**E** [info@aoav.org.uk](mailto:info@aoav.org.uk)

---

**[www.aoav.org.uk](http://www.aoav.org.uk)**

---

### Report by

Henry Dodd and Robert Perkins

### Editor

Katherine Harrison

**Research by** Simon Conway

### With thanks to

Francky Miantuala, Nerina Čevra, Richard Moyes, Steven Smith, MapAction, and all who cooperated with this research.

All photos (unless separately credited) taken by Simon Conway.

Clarifications or corrections from interested parties are welcome.

Research and publications funded by the Government of Norway, Ministry of Foreign Affairs and the Government of Austria, Ministry of Foreign Affairs.

Copyright © Action on Armed Violence,  
June 2012

### Design and printing

Tutaev Design

---

Top photo- The Parish of Saint François, Yoyo Port, Brazzaville.

Bottom photo- Crater at the epicentre of the explosion.