small arms survey

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FACT SHEET

UNPLANNED EXPLOSIONS AT MUNITIONS SITES (UEMS)

Unplanned explosions at munitions sites (UEMS) remain a global and multi-faceted problem. UEMS are accidental explosions of abandoned, damaged, improperly or properly stored stockpiles of ammunition and explosives at munitions sites (Berman and Reina, 2014, p. 3).

For this update of the UEMS database, the Survey explored the gendered impacts of UEMS incidents, as part of the Gender Lens for Arms Control Support and Sustainability (GLASS) project.[1] The gendered consequences of UEMS incidents are not the focus of public reporting on these episodes, nor are there explicit guidelines for gender-sensitive policies on preventing or responding to UEMS (see Box 1). Yet, implicitly, existing good practice and guidelines already contain measures that can help to decrease the impacts of UEMS incidents on people of all genders.

The October 2019 update of the UEMS database

From January 1979 until August 2019, almost 30,000 people across 101 countries worldwide, both military and civilians, lost their lives or were injured as a result of UEMS.[2] The 606 incidents around the world have not only caused massive fatalities and heavily impacted states' stockpiles and infrastructure, but have also resulted in long-lasting socio-economic consequences for the communities affected by the incidents.

Almost three quarters of recorded UEMS (444—73 per cent) took place in state-owned stockpiles. Overall, 113 incidents have occurred under the control of non-state actors (19 per cent), of which 67 involved armed groups, 40 happened at commercial premises, and six took place in private holdings. The remaining 49 cases (8 per cent) took place at unknown holdings. Annual incident numbers had been decreasing since the spike in 2011 (with a record 38 UEMS incidents), but have started to

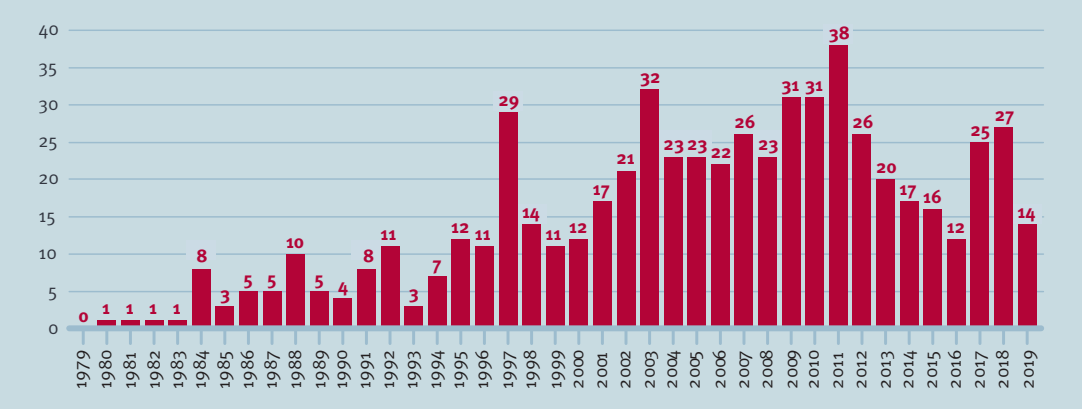
Box 1 UEMS and gender

As of the latest update, the Survey has started to collect sex-disaggregated casualty data on UEMS incidents—a crucial element of gender analysis (UNSD, 2018). For most incidents, sex-disaggregated casualty data is not available, however. Therefore, the Survey also analyses infrastructure and livelihoods surrounding UEMS in order to draw conclusions about their gendered impacts. Out of the ten worst incidents in terms of casualties ever recorded, eight took place in ammunition depots located within or near residential areas. Most of these accidents affected public buildings—schools, hospitals, and other public institutions—that are both crucial to a society's functioning and not particularly designed to withstand explosions.

Although UEMS incidents cannot be entirely prevented, proper stockpile management can mitigate some triggering factors and reduce the impact of UEMS. This has been addressed broadly through international regulation, e.g. in the OSCE Handbook of Best Practices on Conventional Ammunition and the International Ammunition Technical Guidelines (IATG) (OSCE, 2018). These guidelines are not explicitly gender responsive, as they do not spell out specifically how women, men, boys, and girls are affected differently by UEMS. Considered as part of a more comprehensive approach to ammunition management—for example, in the form of the Survey's Life-Cycle Management of Ammunition (LCMA) model—aspects like national ownership, infrastructural considerations related to the location of ammunition storage sites, and training requirements for employees (Carapic et al., 2018, pp. 56–7) are however implicitly calling for gendered considerations in ammunition management.

Gendered considerations can take very practical forms. An example is the improvement of infrastructural conditions for female soldiers and personnel working at ammunition storage sites in Bosnia and Herzegovina (BiH), undertaken in the course of a general overhaul of LCMA in BiH.[3]

Figure 1 Annual UEMS incidents, January 1979–August 2019



Source: Small Arms Survey (n.d.a)

Box 2 New additions to the database

The current update of the database features 11 new incidents, all of which took place between April and August 2019. Some of them have received more media coverage than others, given their sometimes devastating impacts. Three incidents are presented in more detail in this box.

On 9 April 2019, a local warehouse in the middle of a residential area in Sanaa, Yemen, detonated at around midday (incident No. 647). The explosion, whose cause is not completely clear but seems, according to the data available, highly likely to have been caused by a fire, killed at least 15 children who were attending school nearby, and injured more than 100 people, among them at least 29 children.

A fire that erupted in a military warehouse unit in Arys, Kazakhstan, early in the morning of 24 June 2019 led to a series of explosions that continued for at least one hour (incident No. 653). The blasts prompted government authorities to evacuate the roughly 45,000 inhabitants of the city of Arys. Explosive shells that were thrown out from the explosions damaged more than 250 houses and killed at least three people.

One of the most recent UEMS incidents, the explosion of a Russian military ammunition depot near Achinsk on 5 August 2019 (incident No. 658), damaged school and kindergarten buildings in the nearby village of Kamenka. Clean-up and repair work took almost one month and cost more than RUB 8.5 million (about USD 130,000), according to official reports.

Source: Small Arms Survey (n.d.a)

increase again since 2017 (Figure 1). The Survey has identified 14 incidents for 2019, as of August 2019.

During the most recent update, 15 incidents were removed from the database, two because newly uncovered information on their causes meant they no longer qualified as UEMS, and 13 because of inconclusive sources.[4] On the other hand, 11 incidents were added, while 10 existing incidents were refined according to the most recently available information.

Causes and consequences of UEMS incidents cannot be assessed solely with quantitative data. Often, there are different factors that lead to an unplanned explosion: underlying structural conditions, which the Survey calls **root causes**, and triggering factors that directly lead to the incident, known as **primary causes** (Berman and Reina, 2014, p. 52). Similarly, the consequences can go beyond easily quantifiable damages again calling for qualitative assessment. Alongside its continuous review of the UEMS database, the Survey has therefore introduced (whenever possible) a qualitative summary of the context of each incident. This also enables the recording and analysis of gendered impacts of UEMS incidents. The examples in Box 2 are mostly UEMS incidents that occurred in urban or heavily populated areas. The link between UEMS and their locations is another area of research that might provide helpful insights for mitigating the deadly consequences of unplanned explosions. ●

Notes

1 For further information on the Survey's work on gender, see Small Arms Survey (n.d.c).
2 This update of the Survey's UEMS database includes UEMS incidents up to 31 August 2019. For all statistics, see Small Arms Survey (n.d.b).
3 For more information on LCMA in BiH, see Carapic and Holtom (2018).
4 A summary list of the deleted cases is available on our website.

References

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Looking for more information on UEMS?

Several tools and resources are available on the Small Arms Survey website: http://smallarmssurvey.org/UEMS

- UEMS Database
- UEMS Handbook
- UEMS Incident Reporting Template

About the Small Arms Survey

The Small Arms Survey is a global centre of excellence whose mandate is to generate impartial, evidence-based, and policy-relevant knowledge on all aspects of small arms and armed violence. It is the principal international source of expertise, information, and analysis on small arms and armed violence issues, and acts as a resource for governments, policymakers, researchers, and civil society. It is located in Geneva, Switzerland, and is a project of the Graduate Institute of International and Development Studies.

The Survey has an international staff with expertise in security studies, political science, law, economics, development studies, sociology, and criminology, and collaborates with a network of researchers, partner institutions, non-governmental organizations, and governments in more than 50 countries.

For more information, please visit: www.smallarmssurvey.org.

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