

The Impact of Improvised Mines

Definitions and background

In Monitor Impact thematic reporting, the term “improvised mines” is synonymous with victim-activated improvised explosive devices (IEDs).

IEDs are “homemade” explosive weapons that are designed to cause death or injury.

Improvised mines are victim-activated IEDs that are detonated by the presence, proximity, or contact of a person or a vehicle. These are sometimes referred to as artisanal mines, victim-operated IEDs (VO-IEDs), or are referred to by the type of construction or initiation system, such as pressure-plate IEDs (PP-IEDs) and crush wire IEDs.

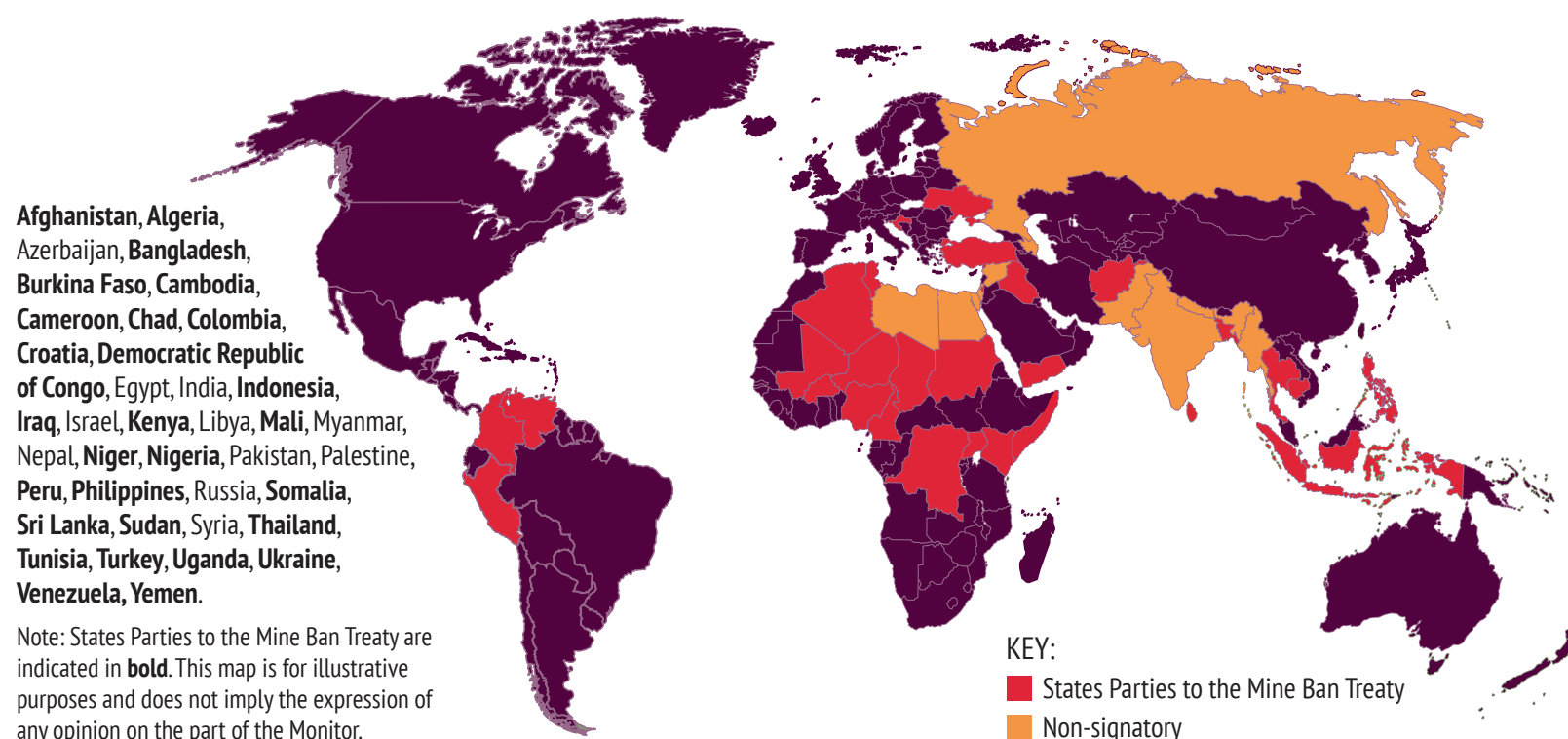
Improvised mine types that can explode due to presence, proximity, or contact of a person, fit the definition of antipersonnel mines and are therefore prohibited under the Mine Ban Treaty.

Available information indicates that the fusing of most improvised mines causing casualties worldwide allows them to be activated by a person. For example, the United Nations Assistance Mission in Afghanistan (UNAMA) has reported that most of the improvised mines in Afghanistan had the “trigger sensitivity of an anti-personnel mine.”¹ In 2021, UNAMA called on armed non-state actors to ban the use of “pressure-plate IEDs,” stating that “These devices, as used in Afghanistan, are victim-operated and inherently indiscriminate, and function as anti-personnel landmines.”²

At a glance

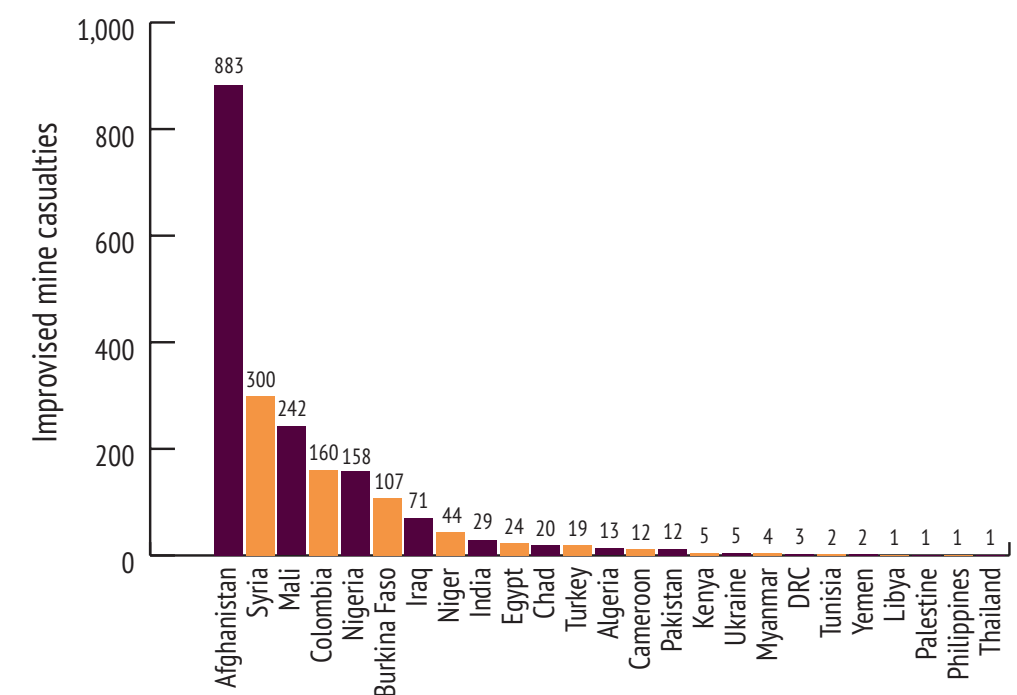
- The scale of use of improvised mines has increased the magnitude of mine contamination and the number of casualties dramatically after 2014.
- Most casualties of improvised mines are believed to be caused by antipersonnel (improvised) mine types.
- Improvised mine types have caused the most recorded casualties of any mine/explosive remnants of war (ERW) type annually since 2012.
- Several Mine Ban Treaty States Parties with casualties from contamination by improvised mines need to clarify the nature and extent of contamination and declare any obligations for clearance of improvised antipersonnel mines.
- Improved reporting and casualty recording terminology is needed to better determine the annual global number of improvised mine casualties.
- More States Parties need to disaggregate improvised mines cleared from other mine and ERW types.
- Clearance and the provision of risk education about improvised mines can be sensitive in some contexts, especially where these mine types are used by parties actively engaged in conflict.

States with improvised mine contamination and/or casualties: 1999–2020



Note: States Parties to the Mine Ban Treaty are indicated in **bold**. This map is for illustrative purposes and does not imply the expression of any opinion on the part of the Monitor.

Improvised mine casualties in 2020



Note: In addition, “unspecified mine” casualties were recorded in the following states in 2020: Algeria (2), Cameroon (15), Chad (6), Egypt (22), India (15), Iraq (9), Libya (86), Mali (115), Myanmar (42), Pakistan (10), Syria (922), Ukraine (23), and Yemen (278).

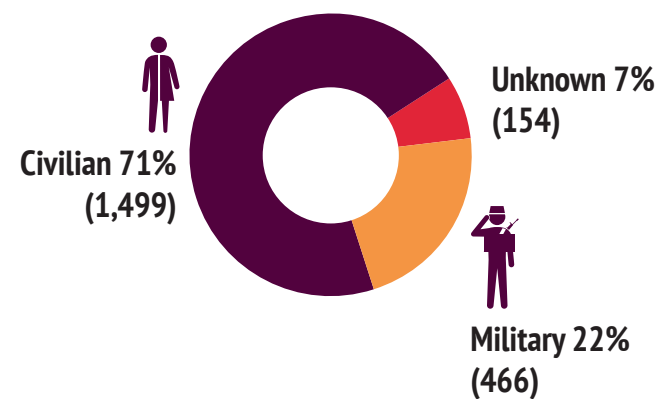
Casualties of improvised mines

In 2020, for the fifth year in a row, improvised mines accounted for the highest number of casualties (2,119) of all explosive devices. At least 864 people were killed, and another were 1,254 injured. For one casualty it was not reported if they survived.

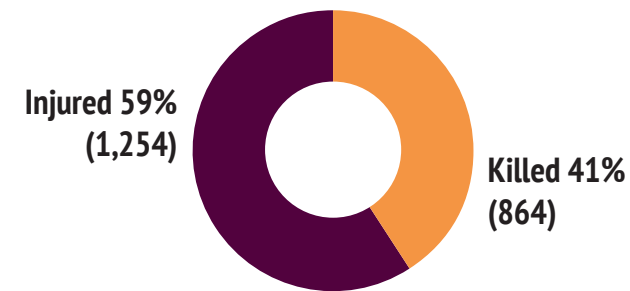
Although the number of casualties attributed to improvised mines declined as a percentage of the total from 2019, this is attributable to inconsistent reporting and varied casualty recording terminology. In particular, the common use of the generic term ‘landmine’ in media reporting where improvised mines have been used.

In 2020, 95% (1,550 of 1,632) of casualties attributed to landmines and not specified according to the type of mine, occurred in countries that also had improvised mine casualties.

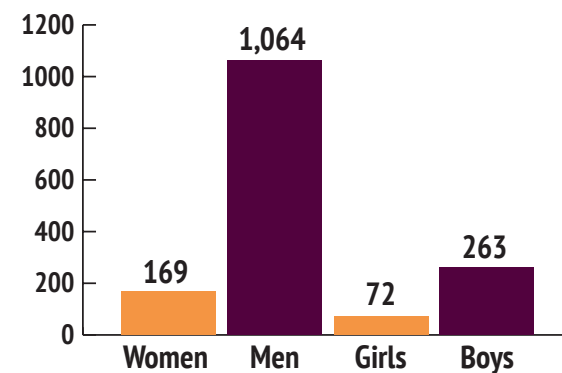
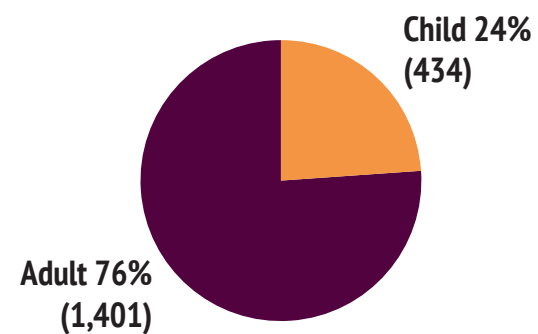
Civilian status of improvised mine casualties in 2020



Survival outcome of improvised mine casualties in 2020*



Age and gender of improvised mine casualties in 2020*

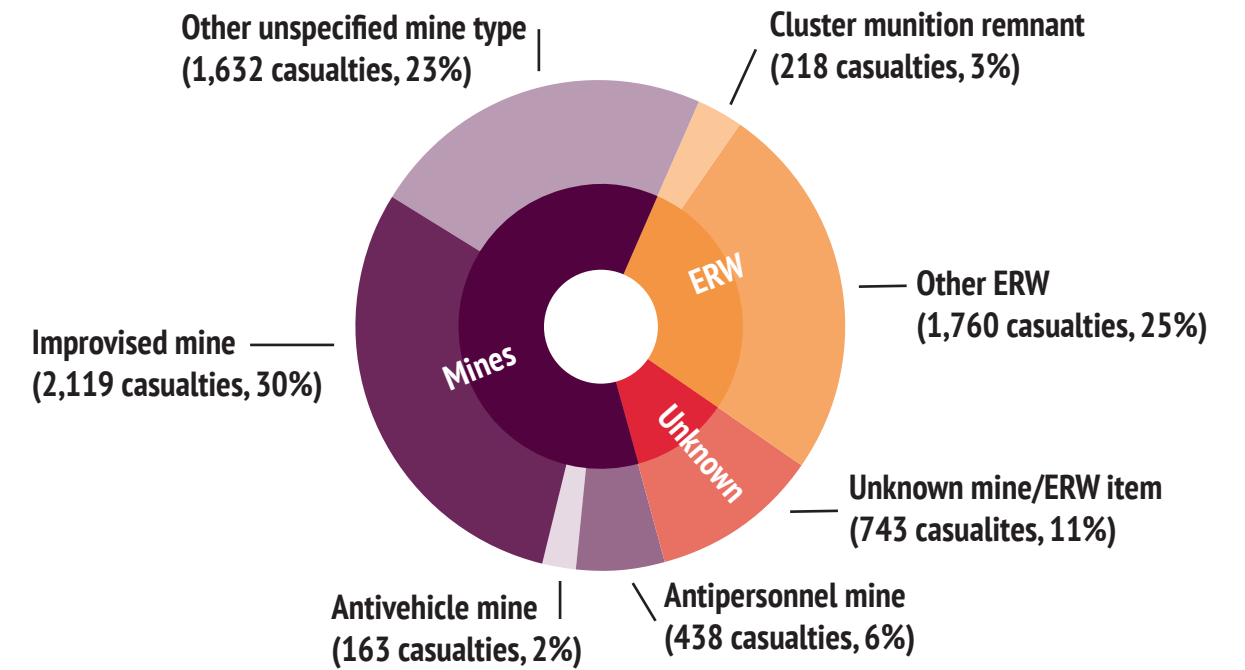


*Note: These charts refer to data for casualties where the age, gender, or survival outcome was recorded in each case.

In many countries where armed violence is prevalent, media reporting and other sources do not clearly identify the type of explosive item causing casualties. The term “landmine” is often used both for improvised mines and other mine types. These casualties are recorded by the Monitor under “unspecified mine types.”

Victim-activation is the common element of all mine types recorded in the Monitor casualty data, including improvised mines and other unspecified mine types that may include improvised mines. The number of improvised mine casualties has been under-reported due to being recorded by various stakeholders as other unspecified mine types, or among undifferentiated mine/ERW categories.

Devices causing casualties in 2020



Contamination by improvised mines in States Parties to the Mine Ban Treaty

Afghanistan, Iraq, and Yemen have significantly over 100km² of antipersonnel mine contamination, comprising both legacy contamination and new contamination, including improvised mines.

In addition, the following States Parties need to clarify their status with regards to improvised mines and their clearance obligations:

- In Burkina Faso, the use of IEDs including pressure-operated improvised mines has been recorded since 2016.
- Cameroon originally declared that there were no mined areas under its jurisdiction and control, and its Article 5 deadline expired in 2013. Mines of an improvised nature have caused casualties, particularly in Cameroon’s northern districts along the border with Nigeria since 2014.
- Mali has experienced a significant increase in improvised mine incidents in the center of the country. It is not confirmed if there are antipersonnel improvised mine types.*
- Tunisia declared completion of mine clearance in 2009. There have been reports of casualties from improvised mines each year since 2016.
- Venezuela reported clearing all of its remaining mined areas in 2013. Yet an antipersonnel mine incident was reported in 2018 near the border with Colombia where non-state armed groups were believed to be using improvised mines, and in 2021, media reports said mines “similar to those used in Colombia” were found in Venezuela.

* The improvised mines causing casualties in Mali were believed to have acted as *de facto* “antivehicle mines.” According to *Landmine Monitor 2021*, only vehicles were involved in mine incidents, and no casualty occurred while individuals were on foot.

Clearance of improvised mines

In States Parties affected by antipersonnel mines of an improvised nature all Mine Ban Treaty provisions apply as they do for all other types of antipersonnel mines. This includes undertaking survey and clearance and disaggregating by types of mines in reporting (see Oslo Action Plan, Action #21).

States Parties that have reported on the clearance of improvised mines in 2020 are: Afghanistan, Bosnia and Herzegovina, Colombia, DRC, Iraq, Mali, Turkey, Venezuela, and Yemen.

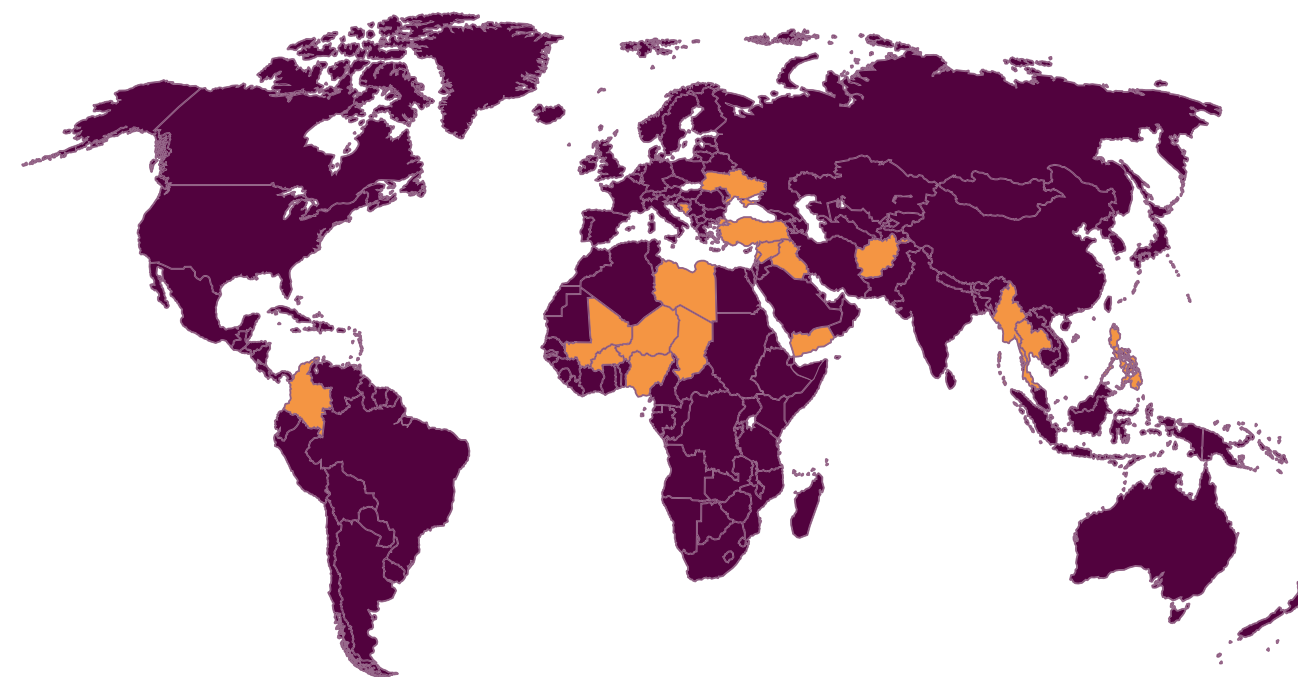
Action #21 of the Oslo Action Plan lays out the commitments of States Parties affected by improvised mines whereby all provisions and obligations of the treaty apply to such contamination. This includes the obligations to clear these devices in accordance with Article 5 and to provide regular information on the extent of contamination, disaggregated by type of mines, in their annual transparency reporting under Article 7.

Casualties from improvised mines have been documented in the following States Parties, which must clarify their status with regards to their Article 5 obligations under the Mine Ban Treaty and may need to request new clearance deadlines: Burkina Faso, Cameroon, Mali, and Tunisia. Venezuela also needed to clarify if it has contamination including victim-activated mines of an improvised nature.

Risk education and improvised mines

Improvised mines are frequently found in urban and peri-urban areas in addition to rural areas. In urban areas, the threat can be more complex, and the boundaries between safe and unsafe areas are often less clear. Improvised devices can be found above ground in buildings, and in and around homes, and device types may vary from area to area. This creates challenges in terms of developing clear messaging regarding recognition of devices and unsafe areas. An International Mine Action Standards (IMAS) technical note (12.10/1) for IED risk education was drafted in 2018 and was being reviewed in 2021 to help address these challenges.

States with improvised mines in operators risk education messaging in 2020



Afghanistan, Bosnia and Herzegovina, Burkina Faso, Chad, Colombia, Iraq, Lebanon, Libya, Mali, Myanmar, Niger, Nigeria, Philippines, Syria, Thailand, Turkey, Ukraine, Yemen

Note: States Parties to the Mine Ban Treaty are indicated in bold. This map is for illustrative purposes and does not imply the expression of any opinion on the part of the Monitor.

Mine action standards and improvised mines

Developments in 2020 included:

- Afghanistan has specific standards for clearance of improvised mines.
- In Iraq, a technical meeting between mine action authorities and the ministries of defense and interior was held to clarify the classification of improvised mines that fit the definition of antipersonnel landmines under the Mine Ban Treaty.
- Libya is developing technical guidance for new emerging hazards.
- Yemen also has specific standards for clearance of improvised mines and is working to produce a catalogue of new mines and mine technologies located during clearance operations.

Clearance and the provision of risk education about improvised mines can be sensitive in some contexts because they are used by parties actively engaged in conflict.

The IMAS definition of explosive ordnance encompasses the mine action response to IEDs, including improvised mines. However, it excludes improvised mines and other emplaced IEDs from the scope of mine action in areas where “active hostilities” persist. The effects of this exclusion on the operational pillars of mine action which address the impact—clearance, risk education, and victim assistance—has not yet been ascertained.

¹ UNAMA, “Annual Report 2014: Protection of Civilians in Armed Conflict,” Kabul, February 2015, p. 48. Victim-activated IEDs used in Afghanistan are often called pressure-plate IEDs.

² UNAMA, “Afghanistan: Protection of Civilians in Armed Conflict Annual Report 2020,” February 2021, p. 16.