I. Tracking armed conflicts and peace processes

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In 2021 active armed conflicts occurred in at least 46 states (1 less than in 2020): 8 in the Americas; 9 in Asia and Oceania (2 more than in 2020); 3 in Europe; 8 in the Middle East and North Africa (MENA); and 18 in sub-Saharan Africa (3 less than in 2020)—see chapters 3–7 respectively.[1] As in preceding years, most took place within a single country (intrastate) between government forces and one or more non-state armed groups (NSAGs) or between such groups. Only three were fought between states (the low-level border clashes between India and Pakistan, Armenia and Azerbaijan, and Kyrgyzstan and Tajikistan), while two were fought between state forces and armed groups aspiring to statehood, with fighting sometimes spilling beyond recognized state borders (the conflicts between Israel and the Palestinians, and between Turkey and the Kurds).

Of the intrastate conflicts, 3 were major armed conflicts (10 000 or more conflict-related deaths in the year)—in Afghanistan (approximately 42 000 reported fatalities), Yemen (18 500) and Myanmar (11 100)—and 19 were high-intensity armed conflicts (1000–9999 conflict-related deaths in the year): in Nigeria (9900), Ethiopia (8880), Mexico (8300), Syria (5900), the Democratic Republic of the Congo (DRC, 5700), Brazil (5500), Somalia (3300), Iraq (2700), Burkina Faso (2400), South Sudan (2100), Mali (1900), Sudan (1700), the Central African Republic (CAR, 1700), Niger (1500), Cameroon (1400), Pakistan (1400), Colombia (1300), Mozambique (1200) and the Philippines (1100) (see figure 2.1). However, these categorizations should be considered tentative, as fatality information is unreliable.[2] Two of the three major armed conflicts (Afghanistan and Yemen) and most of the high-intensity armed conflicts were internationalized, involving foreign elements that may have led to the conflict being prolonged or exacerbated.

This section discusses the definitions of 'armed conflict' and related terms used in chapters 2–7, before highlighting the salient (and largely continuing) features of the armed conflicts and their main consequences in 2021, as well as key developments in peace processes.

[1] For the definitions of 'armed conflict' and related terms used in chapters 2–7 see the 'defining armed conflict' subsection and box 2.1 below.

[2] Armed Conflict Location & Event Data Project (ACLED), 'FAQs: ACLED fatality methodology', 27 Jan. 2020. On casualty counting see also *SIPRI Yearbook 2016*, pp. 247–61; and Delgado, C., 'Why it is important to register violent deaths', SIPRI WritePeace blog, 30 Mar. 2020.

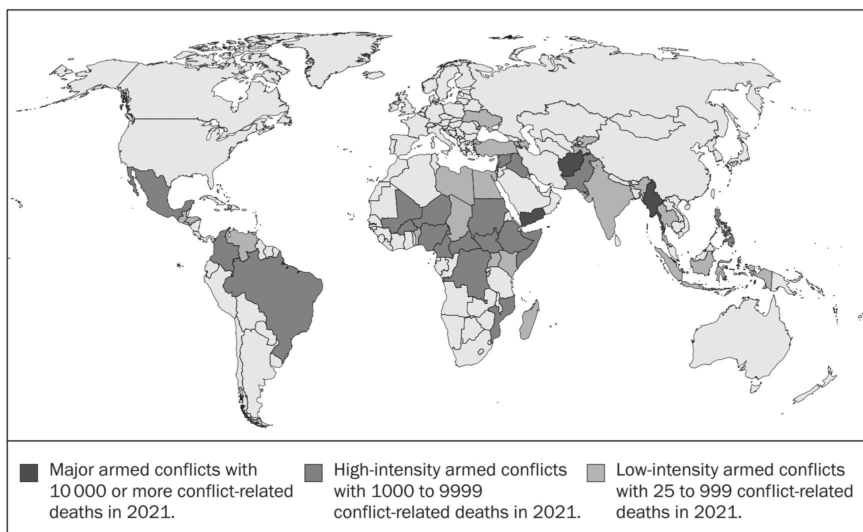

Figure 2.1. Armed conflict, by number of conflict-related deaths, 2021

Defining armed conflict

Armed conflicts are often complex and multifaceted, featuring multiple actors with diverse and changeable objectives. This complexity can pose a major challenge for both the legal and conceptual categorization of armed conflict, as well as for thinking on peacebuilding and conflict prevention.[3]

Legal definitions

Determining the existence of an 'armed conflict' within the framework of international law differs according to whether the conflict occurs between states (interstate or international armed conflict), or between a state and one or more non-state groups, or among two or more non-state groups (intra-state armed conflict, or 'non-international armed conflict' (NIAC) under international humanitarian law).[4] Assessing a situation as an 'armed conflict' and further defining the nature of the armed conflict—international or non-international—is also crucial for determining the level of protection

[3] The complexity is captured in United Nations and World Bank, *Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict* (World Bank: Washington, DC, 2018).

[4] For primary sources on the definition of armed conflicts see the 1949 Geneva Conventions common Article 2 and 1977 Additional Protocol I, Article 1 (international), and 1949 Geneva Conventions common Article 3 and Additional Protocol II, Article 1 (non-international)—International Committee of the Red Cross (ICRC), 'Treaties, states parties and commentaries'. See also e.g. ICRC, 'How is the term "armed conflict" defined in international humanitarian law?', Opinion Paper, Mar. 2008; and ICRC, *International Humanitarian Law and the Challenges of Contemporary Armed Conflicts* (ICRC: Geneva, Oct. 2019), pp. 50–52, 58–59, 75–76.

granted to non-combatants, defining the status of a combatant, and determining the level of obligations towards captured adversaries.

While there can be complications in classifying an international armed conflict—for example, foreign or multinational forces intervening in an armed conflict that does not otherwise have an international character, or extraterritorial uses of force by a state—it is usually more complicated to classify non-international ones. There is often no clear dividing line between intrastate armed conflicts and smaller-scale incidents of internal violence, such as riots or organized crime gangs. The threshold for an intrastate armed conflict must be evaluated on a case-by-case basis by weighing up a range of indicative data. The two key thresholds relevant to the classification of a NIAC are (*a*) protracted armed violence and (*b*) the actors involved demonstrating a certain degree of organization. The evaluation of (*a*) might include: duration of the conflict; frequency and intensity of the acts of violence and military operations, as well as the degree of continuity between them; the nature of the weapons used; displacement of civilians; territorial control by opposition forces; and the number of victims (including the dead, wounded and displaced people). Under (*b*), while states automatically meet the threshold, armed groups are assessed on a case-by-case basis, with possible considerations including whether explicit political goals have been stated; the presence of a command structure; a basic system of disciplinary rules and mechanisms; and the group's logistical and operational capability.[5]

Conceptual definitions used in this Yearbook

For the purpose of data gathering and analysing the number of and trends in armed conflicts, there is a need for simpler and more stringent definitions, both of an 'armed conflict' and its different types. However, the complexity in defining an armed conflict is reflected in the differences between the main datasets on violence and conflict, each of which has its own definitions and methodology.[6] This part of the Yearbook (chapters 2–7)—which is based predominantly on data from the Armed Conflict Location & Event Data Project (ACLED)—offers a primarily descriptive (rather than quantitative) synopsis of trends and events in 2021 affecting key armed conflicts.[7] It defines an 'armed conflict' as involving the use of armed force between two or more states or NSAGs (i.e. it covers both state-based and non-state armed conflict), and distinguishes armed conflicts according to three major categories: (*a*) interstate, (*b*) intrastate and (*c*) extrastate (see box 2.1).

[5] Vité, S., 'Typology of armed conflicts in international humanitarian law: Legal concepts and actual situations', *International Review of the Red Cross*, vol. 91, no. 873 (Mar. 2009), pp. 69–94.

[6] For an overview of the major advances in the collection and availability of armed conflict data see *SIPRI Yearbook 2016*, pp. 191–200.

[7] For more on events in 2021 related to armaments, disarmament and international security see annex C in this volume.

Box 2.1. Definitions and types of armed conflict

Armed conflict involves the use of armed force between two or more states or non-state armed groups (NSAGs). For the purposes of part I of this Yearbook, there is a threshold of battle-related violence causing 25 or more deaths in a given year. With the caveat that data on conflict deaths is often imprecise and tentative, the chapters categorize such conflicts as *major* (10 000 or more conflict-related deaths in the current year), *high intensity* (1000–9999 deaths) or *low intensity* (25–999 deaths).

Armed conflict can be further categorized as follows:

Interstate (international) armed conflict—the use of armed force by one or more state(s) against another state or states—is now rare and mostly occurs at lower intensities or shorter durations. While territorial, border and other disputes persist among states, they seldom escalate to armed conflict.

Intrastate (non-international) armed conflict is the most common form of armed conflict today and usually involves sustained violence between a state and one or more NSAGs fighting with explicitly political goals (e.g. taking control of the state or part of its territory). However, it can also include armed conflict between NSAGs, sometimes with less clear goals. Intrastate armed conflict can also be classified as follows:

- ***Subnational armed conflict*** is typically confined to particular areas within a sovereign state, with economic and social activities in the rest of the country proceeding relatively untroubled. This kind of conflict often takes place in stable, middle-income countries with relatively strong state institutions and capable security forces. Sometimes it takes place in a troubled border region within a large country that expanded geographically in the past or that has arbitrarily drawn borders.
- ***Civil war*** involves most of the country and results in at least 1000 conflict-related deaths in a given year.

Either type of intrastate conflict is considered internationalized if there is significant involvement by a foreign entity (excluding United Nations peace operations) that is clearly prolonging or exacerbating the conflict—such as armed intervention in support of, or provision of significant levels of weapons or military training to, one or more of the conflict parties by a foreign government or non-state actor, including private military companies.

Extrastate armed conflict occurs between a state and a political entity that is not widely recognized as a state but has long-standing aspirations of statehood (e.g. the Israeli–Palestinian conflict). Such conflicts, which are rare, may take place both inside and outside the state boundaries recognized by the international community.

Note: These definitions are used indicatively and are not based on legal conclusions. Thus, the conflict situations discussed in chapters 2–7 of this Yearbook may be characterized differently under international humanitarian law.

In defining a series of violent events as an armed conflict, a threshold of 25 reported battle-related deaths in a year is used. Fatality figures are collated from four event types: battles; explosions/remote violence; protests, riots and strategic developments; and violence against civilians.[8] Once the threshold of 25 battle-related deaths has been crossed, the fatalities from the other three event types are added to give a total number of 'conflict-related fatalities'.

[8] ACLED, 'ACLED definitions of political violence and protest', 11 Apr. 2019.

Thus, not every situation of armed violence amounts to an armed conflict. For example, although criminal violence can threaten the authority and capability of a state as much as an armed conflict, law enforcement activities unconnected to an armed conflict fall outside the scope of this definition (even if a state's military is involved). However, if the criminal violence involves state forces and/or organized NSAGs, and battle-related fatalities exceed the threshold, it is treated here as an armed conflict.

The difficulties in distinguishing between high levels of criminal violence and armed conflict is illustrated by the situation in the Americas (see chapter 3). The assessment that there were eight armed conflicts in the Americas in 2021 is based on ACLED's battle-related fatality figures, principally involving armed violence between state security forces and criminal gangs, or inter-gang violence. However, in only two of those countries—Colombia and Mexico—did the conflicts meet the complex legal definition of a NIAC. This was despite the other six countries experiencing levels of lethality, territorial control by non-state actors, and forced displacement and migration that are in keeping with traditional conceptions of armed conflict. Given these impacts and the lethality of gang–state violence, there is growing debate about whether international humanitarian law definitions of armed conflict require adjustment.[9]

Significant features of armed conflicts in 2021

Most armed conflicts since the cold war have been fought by a combination of regular armies, militias and armed civilians. Fighting is often intermittent, with a wide range of intensities and brief ceasefires, and rarely occurs on well-defined battlefields. While the nature of most armed conflicts is context specific, this subsection highlights some of the most significant features of several armed conflicts in 2021.

The International Committee of the Red Cross estimates that around 600 armed groups were active around the world in 2021, with at least 100 of them considered to be parties to a NIAC.[10] An estimated 60–70 million people reside in areas under the control of NSAGs.[11] Armed groups in many countries (e.g. CAR, Iraq, Libya, Nigeria, South Sudan, Syria, Ukraine and Yemen)

[9] See e.g. Applebaum, A. and Mawby, B., 'Gang violence as armed conflict: A new perspective on El Salvador', Policy Brief, Georgetown Institute for Women, Peace and Security, Nov. 2018; Ryan, K. O., '"Urban killing fields": International humanitarian law, gang violence, and armed conflict on the streets of El Salvador', *International and Comparative Law Review*, vol. 20, no. 1 (2020), pp. 97–126; and Chaparro, L. and Deslandes, A., 'Where's the aid for Mexicans displaced by gang violence?', New Humanitarian, 1 July 2021.

[10] Demeyere, B., 'Editorial: Non-state armed groups', *International Review of the Red Cross*, vol. 102, no. 915 (2021).

[11] Fidelis-Tzourou, M. and Sjöberg, A., 'Forgotten freedoms: The right to free expression in areas controlled by non-state armed groups', Armed Groups and International Law, 23 Oct. 2020.

were, in addition to being involved in military operations against state forces or other armed groups, providing services and governance normally associated with the state (from health care to security and justice). Despite the growing numbers of NSAGs, state forces remained the most powerful and violent actors in 2021, participating in 46 per cent of all political violence (down from 52 per cent in 2020).[12]

Most armed conflicts in 2021 were fought with conventional arms. Armed uncrewed aerial vehicles (UAVs), or drones, were increasingly used to conduct attacks in many situations of armed conflict, including in Ethiopia, Nagorno-Karabakh, Syria, Ukraine and Yemen.[13] UAV technology has proliferated greatly in recent years, with over 100 states currently operating military drones, and several armed non-state groups using commercial drones equipped with explosives.[14]

Forced recruitment of child soldiers and the use of sexual violence are widely perpetrated in armed conflict. In 2020 (the most recent year for which data is available) 8521 children were recruited and used as soldiers (as compared to 7747 in 2019), with Somalia remaining the country with the highest case number of cases (1716 in 2020).[15] Research suggests that the risk of children being recruited for use in armed conflict has increased steadily over the past 30 years.[16] In an annual report on conflict-related sexual violence, the UN secretary-general listed 18 countries of concern and 52 parties to conflict that were credibly suspected of having committed or instigated sexual violence in 2020 (the year covered by the report).[17] Such violence continued over the course of 2021 in many of these countries of concern. In Ethiopia, for example, sexual violence was widely reported, with an estimated 22 500 survivors seeking clinical care (up from 5611 in 2020).[18]

During many of the armed conflicts, especially the major and high-intensity conflicts, other international humanitarian law violations were also committed, including the use of starvation to achieve military ends;

[12] Lay, T., *ACLED 2021: The Year in Review* (ACLED: Mar. 2022), pp. 15–19.

[13] Gatopoulos, A., 'How armed drones may have helped turn the tide in Ethiopia's war', Al Jazeera, 10 Dec. 2021; and Khurshudyan, I. and Stern, D., 'Why Ukraine's Turkish-made drone became a flashpoint in tensions with Russia', *Washington Post*, 15 Jan. 2022.

[14] Gettinger, D., 'Drone databook update: March 2020', Mar. 2020, Center for the Study of the Drone; and Manson, K., 'Low-cost warfare: US military battles with "Costco drones"', *Financial Times*, 5 Jan. 2022. On calls to regulate armed UAVs see chapter 13, section I, in this volume.

[15] United Nations, General Assembly and Security Council, 'Children and armed conflict', Report of the Secretary-General, A/75/873–S/2021/437, 6 May 2021, pp. 2, 19.

[16] Haer, R. et al., 'Children at risk of being recruited for armed conflict, 1990–2020', Conflict Trends no. 6, Peace Research Institute Oslo, 2021.

[17] United Nations, Security Council, 'Conflict-related sexual violence', Report of the Secretary-General, S/2021/312, 30 Mar. 2021.

[18] Marks, S. and Walsh, D., '"They told us not to resist": Sexual violence pervades Ethiopia's war', *New York Times*, 1 Apr. 2021; and UN Population Fund Ethiopia, 'Preparedness and response plan for the Tigray crisis', April 2021, p. 2. On the armed conflict in Ethiopia see chapter 7, section IV, in this volume.

the denial of humanitarian aid; forced displacement; and attacks on aid and health workers, hospitals and schools. The rules meant to protect civilians in war are being broken regularly and systematically, with the consequence that such violations appear to be on the increase.[19]

Consequences of armed conflicts in 2021

Armed conflicts result in loss of life and life-changing injuries, displacement of civilian populations, and destruction of infrastructure and institutions. They also have long-term economic, developmental, political, environmental, health and social consequences.

Conflict-related fatalities

In 2021 the total estimated number of conflict-related fatalities increased by 13 per cent compared to 2020 (see table 2.1), despite a third consecutive year of reduced fatalities in MENA.[20] The increase in 2021 was driven by significant increases in Asia and Oceania (59 per cent increase)—mostly due to increases in Afghanistan, Myanmar and Pakistan—and sub-Saharan Africa (19 per cent increase). Conflict-related fatalities increased in all four event types in 2021 (see table 2.2). Battle-related fatalities increased by 11 per cent compared to 2020, despite the number of such events having declined by 13 per cent, accounting for 58 per cent of total estimated conflict-related fatalities in 2021.

Civilians were also increasingly targeted in 2021. ACLED recorded a 12 per cent increase in political violence targeting of civilians, with 33 331 events reported in 2020 compared to 37 185 in 2021 (of which 46 per cent were attributable to anonymous armed groups and 16 per cent to state forces); and an 8 per cent increase in civilian fatalities, with 35 889 reported fatalities in 2020 compared to 38 658 in 2021. The countries with the most civilian targeting in 2021 were Mexico (6298 events), Brazil (3262 events), Myanmar (2564 events), Syria (2517 events) and Nigeria (1580). In Mexico and Brazil the attacks were mainly perpetrated by anonymous or unidentified gangs (often making it difficult to determine whether the victim was a 'civilian' or a

[19] See e.g. United Nations, Security Council, 'Protection of civilians in armed conflict', Report of the Secretary-General, S/2021/423, 3 May 2021; and Metcalfe-Hough, V., 'Advocating for humanity? Securing better protection of civilians affected by armed conflict', Briefing Note, Humanitarian Policy Group, Nov. 2020.

[20] This assessment is based on ACLED data. For comparison see the Uppsala Conflict Data Program (UCDP), which reported total deaths from organized violence reaching a 15-year high in 2014, with about 103 000 deaths, and generally declining since then. UCDP's most recent data for 2019 showed almost 75 600 deaths, a decrease for the fifth successive year. Pettersson, T. and Öberg, M., 'Organized violence, 1989–2019', *Journal of Peace Research*, vol. 57, no. 4 (2020), pp. 597–613.

Table 2.1. Estimated conflict-related fatalities by region, 2018–21

Region	2018	2019	2020	2021
Americas	21 557	20 200	17 633	18 397
Asia and Oceania	49 888	48 755	36 325	57 877
Europe	1 084	482	7 312	278
Middle East and North Africa	76 512	53 430	34 117	28 506
Sub-Saharan Africa	26 504	26 620	37 683	44 848
Total	**175 545**	**149 487**	**133 070**	**149 906**

Note: Fatality figures are collated from four event types: battles; explosions/remote violence; protests, riots and strategic developments; and violence against civilians—see Armed Conflict Location & Event Data Project (ACLED), 'ACLED definitions of political violence and protest', 11 Apr. 2019.
Source: ACLED, 'Dashboard', accessed 29 Mar. 2022.

member of a criminal group), while in Myanmar it was primarily state forces, in Syria rebel groups and in Nigeria identity militias.[21]

Separate data on global trends and patterns in terrorism show a downward trend in deaths and in the impact of terrorism.[22] The Global Terrorism Index 2022 reports that the number of terrorism-related deaths worldwide fell by 1.2 per cent between 2020 and 2021, with the 7142 deaths recorded in 2021 a third of what they were at their peak in 2015. These reductions in fatalities occurred despite a 17 per cent increase in the number of attacks globally, to 5226. The data also shows a shift in the dynamics of terrorism. First, terrorism has become increasingly concentrated in regions and countries with political instability and conflict, such as the Sahel, Afghanistan and Myanmar—48 per cent of terrorism deaths globally in 2021 occurred in sub-Saharan Africa. Second, primarily politically motivated terrorism has overtaken religiously motivated terrorism, with five times more of the former than the latter in the period 2017–21.[23]

Forced displacement

While conflict-related fatalities have generally shown a downward trend in recent years, other impacts of armed conflict (sometimes in combination with

[21] Lay (note 12), pp. 18–22. ACLED categorizes 'political violence' as all events coded with event types 'battles', 'explosions/remote violence', and 'violence against civilians', as well as all events coded with sub-event type 'mob violence' under the 'riots' event type.

[22] There is no single internationally accepted definition of what constitutes terrorism. In the absence of an agreed definition, it is recognized that states sometimes identify 'terrorist' suspects in light of their own national interests, while others may consider the same actors to be insurgents or fighting for self-determination. Beyond al-Qaeda, the Islamic State and the Taliban, non-state armed groups as diverse as the Liberation Tigers of Tamil Eelam in Sri Lanka, the Revolutionary Armed Forces of Colombia (FARC), the Communist Party of Nepal, the Kurdistan Workers' Party in Turkey, the Communist Party of the Philippines, Hamas in Palestine and the Irish Republican Army (IRA) have been listed as terrorists.

[23] Institute for Economics & Peace (IEP), *Global Terrorism Index 2022: Measuring the Impact of Terrorism* (IEP: Sydney, Mar. 2022), p. 2.

Table 2.2. Categories of conflict-related violence, 2020–21

Event type	No. of events 2020	No. of events 2021	Percentage change (2020–21)	Fatalities 2020	Fatalities 2021	Percentage change (2020–21)
Battles	37 755	32 660	*–13*	78 455	87 134	*11*
Explosions/ remote violence	25 499	25 382	*–0.5*	21 465	25 626	*19*
Protests, riots and strategic developments	164 698	184 796	*12*	3 358	3 911	*16*
Violence against civilians	24 892	27 964	*12*	29 792	33 251	*12*
Total	**252 844**	**270 802**		**133 070**	**149 922**	

Note: For definitions of event types, see Armed Conflict Location & Event Data Project (ACLED), 'ACLED definitions of political violence and protest', 11 Apr. 2019.

Source: ACLED, 'Dashboard', accessed 30 Mar. 2022.

other factors) appear to have increased, including population displacement, food insecurity, humanitarian needs, and violations of international humanitarian law. Armed conflict is a major driver of displacement, which reached record levels in 2021. At the beginning of 2021, 82.4 million people (approximately 1 per cent of humanity and more than double the number 10 years ago) were forcibly displaced, including 48 million internally displaced persons and 26.4 million refugees.[24]

These record numbers continued into the first six months of 2021, with conflict and violence triggering further large internal displacements, mainly in sub-Saharan Africa (e.g. 1.7 million people in Ethiopia, 0.73 million in the DRC and 0.29 million in Nigeria) and Asia (e.g. 0.34 million in Afghanistan and 0.24 million in Myanmar).[25] As of mid 2021, more than two-thirds of all refugees were from just five countries: Syria (6.8 million), Venezuela (4.1 million), Afghanistan (2.6 million), South Sudan (2.2 million) and Myanmar (1.1 million).[26] Protracted displacement crises continued in many other places, including Burkina Faso, Burundi, Cameroon, CAR, Colombia, El Salvador, Guatemala, Haiti, Honduras, Iraq, Libya, Mali, Mozambique, Somalia, Sudan and Yemen.[27]

Food insecurity

Armed conflict also continued to be one of the main drivers of food insecurity in 2021. In its September 2021 update the Global Report on Food Crises estimates that 161 million people in 42 countries faced acute food insecurity in the

[24] UN High Commissioner for Refugees (UNHCR), *Global Trends: Forced Displacement in 2020* (UNHCR: Copenhagen, 18 June 2021).

[25] Internal Displacement Monitoring Centre, 'Internal displacement at mid-year: 10 situations in review, 2021 mid-year update', 11 Apr. 2022.

[26] UNHCR, 'Refugee data finder', updated 10 Nov. 2021.

[27] UN Office for the Coordination of Humanitarian Affairs (OCHA), *Global Humanitarian Overview 2022* (UN OCHA: Geneva, Dec. 2021).

first eight months of 2021 due to the triple impact of conflict, climate shocks and the socio-economic consequences of the Covid-19 pandemic.[28] However, given this estimate did not cover all the countries at risk, and the situation worsened in some countries at the end of the year, a record high of up to 283 million people across 80 countries were likely to have been food insecure or at high risk in 2021 (up from 270 million across 79 countries in 2020).[29] This worsening situation reflects increases in acute food insecurity in some of the most conflict-affected countries, most notably Afghanistan, CAR, the DRC, Ethiopia, Haiti, Myanmar, Nigeria, Somalia, South Sudan, Sudan, Syria and Yemen.[30] Afghanistan became one of the world's largest hunger crises in 2021, with acute food insecurity affecting 22.8 million people (more than half the population), including 8.7 million people facing emergency levels of food insecurity.[31]

Conflict continued to be the primary driver of acute food insecurity in sub-Saharan Africa, where 12 of the 15 countries facing the greatest food insecurity in 2021 were also experiencing conflict.[32] The DRC, for example, was experiencing one of the worst humanitarian crises in the world, with an estimated 26.2 million people (about 27 per cent of the population) facing acute food insecurity—the largest of any single African country.[33] This was primarily due to ongoing armed violence and intercommunal conflicts in the eastern and north-eastern regions of the country. Similarly, in Ethiopia about 7 million people across three conflict-afflicted regions—Afar, Amhara and Tigray—were in need of food assistance by the end of September 2021.[34]

[28] Food Security Information Network, '2021 global report on food crises: September 2021 update', Sep. 2021, p. 3.

[29] UN OCHA (note 27), p. 26.

[30] UN OCHA (note 27), pp. 25–30. On food insecurity and conflict see also von Grebmer, K. et al., *Global Hunger Index 2021: Hunger and Food Systems in Conflict Settings* (Deutsche Welthungerhilfe e. V./Concern Worldwide: Bonn/Dublin, Oct. 2021); Food and Agriculture Organization of the UN (FAO), International Fund for Agricultural Development (IFAD), UN Children's Fund (UNICEF), World Food Programme (WFP) and World Health Organization (WHO), *The State of Food Security and Nutrition in the World 2021: Transforming Food Systems for Food Security, Improved Nutrition and Affordable Healthy Diets for All* (FAO: Rome, 2021); and Delgado, C., Murugani, V. and Tschunkert, K., *Food Systems in Conflict and Peacebuilding Settings: Pathways and Interconnections* (SIPRI: Stockholm, June 2021).

[31] Integrated Food Security Phase Classification, 'Afghanistan: Integrated Food Security Phase Classification snapshot: September 2021–March 2022', 25 Oct. 2021.

[32] The 15 countries with the highest acute food insecurity were: Burkina Faso, Cameroon, CAR, Chad, the DRC, Ethiopia, Kenya, Mozambique, Niger, Nigeria, Sierra Leone, Somalia, South Sudan, Sudan and Zimbabwe. Only Kenya, Sierra Leone and Zimbabwe were without armed conflict in 2021.

[33] Integrated Food Security Phase Classification, 'Democratic Republic of Congo: Integrated Food Security Phase Classification snapshot: March 2021', 30 March 2021; and Integrated Food Security Phase Classification, 'Democratic Republic of the Congo (DRC): Acute malnutrition situation September 2021–March 2022 and Projection for April–August 2022', 4 Oct. 2021.

[34] United Nations, 'Tigray: Food aid reaches Afar and Amhara, but situation still "dire"', UN News, 5 Oct. 2021.

Children and armed conflict

Large numbers of children suffer the consequences of armed conflicts: in 2020 (the latest year for which figures are available), 452 million children—more than one-sixth of children worldwide—were living in areas affected by armed conflict (a rise of 6 per cent compared to 2019).[35] In addition to fatalities through direct injury, children suffer the indirect effects of conflict, including malnutrition, disease and human rights violations. The UN secretary-general's annual report on children and armed conflict documented more than 26 000 incidents of 'grave violations' against children in conflicts around the world in 2020 (a 4 per cent increase compared to 2019), including the recruitment and use of children by armed groups, killing, maiming, harassment, rape and sexual violence, and abductions and attacks on schools and hospitals. The highest numbers of grave violations were verified in Afghanistan, the DRC, Somalia, Syria and Yemen.[36]

Economic costs

Armed conflict also imposes substantial economic costs on society. Though calculating the economic costs of violence is extremely difficult, one study estimated the global cost to be $15 trillion in 2020, or 11.6 per cent of global gross domestic product (GDP). This was a slight increase on the 2019 calculation, mainly due to higher levels of military expenditure. However, the economic impact of armed conflict in 2020 was estimated to have decreased by 7.6 per cent to $448 billion, with this decline attributable to fewer deaths from terrorism and lower GDP losses from conflict. The economic impact of violence in the 10 most affected countries in 2020 averaged 35.7 per cent of GDP, while in the 10 most peaceful countries the average was just 4.2 per cent of GDP. The single largest component of the model in 2020 was global military expenditure (42.9 per cent of the total), followed by internal security spending (31.3 per cent) and private security expenditure (7.9 per cent).[37]

Environmental costs

Finally, armed conflict contributes to the deteriorating condition of the global environment, with consequences for sustainable development, human security and ecosystems—vulnerabilities that are being amplified by

[35] Østby, G. et al., 'Children affected by armed conflict, 1990–2020', Conflict Trends no. 4, Peace Research Institute Oslo, 2021.

[36] United Nations, General Assembly and Security Council, 'Children and armed conflict', Report of the Secretary-General, A/75/873–S/2021/437, 6 May 2021, p. 2.

[37] IEP, *Global Peace Index 2021: Measuring Peace in a Complex World* (IEP: Sydney, June 2021), pp. 37–48. On global military expenditure in 2021 see chapter 8 in this volume.

Table 2.3. Number of peace agreements, 2012–21

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021[a]
63	43	81	70	79	74	81	48	21	7

[a] Covers Jan.–June 2021 only.

Source: PA-X Peace Agreements Database, Political Settlements Research Programme, University of Edinburgh, accessed 1 Apr. 2022.

increasingly unpredictable climate patterns.[38] Climate change poses multidimensional challenges to peace. In 2021 climate-related shocks continued to amplify drivers of violence in several countries and regions. Four interrelated pathways from climate change to violent conflict have been identified: (*a*) livelihoods; (*b*) migration and mobility; (*c*) armed group tactics; and (*d*) elite exploitation.[39] In Africa greater food and water insecurity, loss of livelihoods, additional pressure on natural resources, growing water scarcity, and more climate-linked human displacements contributed to increased violence in 2021. In South Sudan, for example, several years of catastrophic flooding displaced hundreds of thousands, including herders who moved south to the Equatoria region. This climate-induced forced migration aggravated pre-existing grievances and intercommunal tensions over land and power in the region.[40] Similarly, in the Sahel the erosion of traditional land-use arrangements due to climate change inflamed farmer–herder disputes, uprooting hundreds of thousands of people and contributing to the rise of jihadist and self-defence groups.[41]

The African Union and its member states have already recognized the risks that changing weather patterns pose to the continent. In November 2021, for example, the AU's Peace and Security Council emphasized the importance of climate-sensitive planning within peacekeeping and post-conflict reconstruction missions, as well as broader development agendas, to avoid armed conflict relapse in fragile communities.[42] Cooperation over water

[38] See e.g. Scartozzi, C. M., 'Reframing climate induced socioenvironmental conflicts: A systematic review', *International Studies Review*, vol. 23, no. 3 (16 Aug. 2021); and von Uexkull, N. and Buhaug, H., 'Security implications of climate change: A decade of scientific progress', *Journal of Peace Research*, vol. 58, no. 1 (Jan. 2021). On the linkages between climate change and arms transfers see Grand-Clément, S., Kruczkiewicz, A. and Miralles, M. M., 'A darker shade of "Code Red": Arms and climate change', Conflict and Environment Observatory, 2 Dec. 2021.

[39] Mobjörk, M., Krampe, F. and Tarif, K., 'Pathways of climate insecurity: Guidance for policymakers', SIPRI Policy Brief, Nov. 2020.

[40] See chapter 7, section IV, in this volume.

[41] Hegazi, F., Krampe, F. and Smith, E. S., *Climate-related Security Risks and Peacebuilding in Mali*, SIPRI Policy Paper no. 60 (SIPRI: Stockholm, Apr. 2021); Tarif, K., 'Climate change and violent conflict in West Africa: Assessing the evidence', SIPRI Insights on Peace and Security no. 2022/3, Feb. 2022; and chapter 7, section II, in this volume.

[42] 'Communiqué of the 1051st meeting of the AU PSC on "Climate Change and Peace and Security: The need for an Informed Climate-Security-Development nexus for Africa"', PSC/PR/COMM.1051 (2021), 26 Nov. 2021. Also see 'Communiqué of the 984th meeting of the AU PSC at the level of Heads of State and Government on "Sustainable Peace in Africa: Climate Change and its Effects on Peace and Security in the Continent"', AU PSC/AHG/COMM.1 (CMLXXXIV), 9 Mar. 2021.

resources, for example, can help prevent the escalation of tensions and build resilience to the impacts of climate change.[43] At the global level, however, cooperation has been harder to achieve due to increased geopolitical tensions. For example, a modest draft resolution focused on improving the UN Security Council's analysis of links between climate change and instability in countries and regions was vetoed by Russia in December 2021. India also opposed the draft, while China abstained.[44]

Peace processes in 2021

Like the conflicts they attempt to address, peace processes are also increasingly complex, multidimensional and internationalized, involving a wide range of actors, activities and outcomes.[45] In addition, there is a growing number of peace agreement databases and collections.[46] The evidence suggests that, despite increasing numbers of armed conflicts, there have been fewer peace agreements in recent years, with a particularly strong decrease likely in 2021 compared to the previous nine years (see table 2.3). The Covid-19 pandemic and a divided—and hence less influential—UN Security Council may be partly responsible for the lower number of peace agreements in 2020–21.[47] There were seven new peace agreements in the first half of 2021 (see table 2.4).

Peacebuilding efforts typically include: ceasefire negotiations; signing of peace agreements; multilateral peace operations; disarmament, demobilization and reintegration of former combatants (often supported as part of UN peace operations); power-sharing arrangements; and state-building measures. These are all designed to bring about sustainable peace among parties to a conflict.[48] Despite increased efforts in recent years to make peace

[43] For lessons learned from existing cooperative initiatives see Kim, K. et al., *Water Cooperation in the Horn of Africa: Addressing Drivers of Conflict and Strengthening Resilience* (SIPRI: Stockholm, Dec. 2021).

[44] AP News, 'Russia vetoes UN Security Council resolution linking climate crisis to international peace', *The Guardian*, 13 Dec. 2021; and International Crisis Group, 'How UN member states divided over climate security', 22 Dec. 2021. See also discussion on climate change in the Introduction, section II, of this volume.

[45] Wolff, S., 'The making of peace: Processes and agreements', Armed Conflict Survey, vol. 4, no. 1 (2018), pp. 65–80.

[46] Examples include: UN Peacemaker, Peace Agreements Database; UN Peacemaker and University of Cambridge, Language of Peace Database; University of Edinburgh, Political Settlements Research Programme, PA-X Peace Agreements Database; University of Notre Dame, Kroc Institute for International Peace Studies, Peace Accords Matrix; and UCDP, UCDP Peace Agreement Dataset.

[47] On the lack of cooperation in the international system and Western tensions with China and Russia see chapter 1, chapter 4, section II, and chapter 5, section I, in this volume.

[48] On multilateral peace operations see section II in this chapter, and in relation to disarmament, demobilization and reintegration see UN Peacekeeping, 'Disarmament, demobilization and reintegration', accessed 11 Apr. 2022. On various interpretations of the term 'peace', as well as other tools for realizing peace, see *SIPRI Yearbook 2017*, pp. 211–52; and Caplan, R., *Measuring Peace: Principles, Practices, and Politics* (Oxford: Oxford University Press, 2019).

Table 2.4. Peace agreements in January to June 2021

Country	Date of agreement	Agreement	Conflict level	Stage
India/ Pakistan	25 Feb. 2021	Joint statement	Interstate	Renewal
Mali	24 Jan. 2021	Peace agreement between the Dogon and Peulh communities[a]	Intrastate/ local	Framework—partial
Mali	22 Jan. 2021	Peace agreement between the Dogon and Peulh communities[b]	Intrastate/ local	Framework—partial
Mali	12 Jan. 2021	Peace agreement between the Dogon and Peulh communities[c]	Intrastate/ local	Framework—partial
Senegal/ Casamance	9 Apr. 2021	Joint statement	Intrastate	Pre-negotiation
South Sudan	25 Mar.2021	Lou Nuer–Dinka Bor–Murle Action for Peace, Jonglei State	Intrastate/ local	Framework—partial
Sudan	28 Mar. 2021	Declaration of Principles between the Transitional Government of Sudan and the Sudan People's Liberation Movement-North	Intrastate	Framework—partial

Renewal = a short agreement to renew previous commitments; Framework—partial = agreements that concern parties engaged in discussion and agreeing to substantive issues to resolve a conflict, but which only deal with some of the issues; Pre-negotiation = an agreement that aims to get parties to the point of negotiating over the incompatibilities at the heart of a conflict.

[a] Dogon and Peulh communities of Madougou and Barapirely.

[b] Dogon and Peulh communities of Dougoutènè I, Dougoutènè II, KoporoKendié Na, Koporo Pen, Pel Maoudé and Youdiou.

[c] Dogon and Peulh communities of Bondo, Dioungani and Koro.

Source: PA-X Peace Agreements Database, Political Settlements Research Programme, University of Edinburgh, accessed 1 Apr. 2022.

processes more inclusive, women, community and grassroots organizations continue to be under-represented in the political–military hierarchies at the centre of most peace negotiations.[49] In the period 1990–2020 the percentage of peace agreements with provisions referencing women, girls and gender averaged only 22 per cent per year. After a generally positive trend that saw the figure rise to 49 per cent in 2013, it dropped back down to 8 per cent in 2017 before rising to 29 per cent in 2020 (i.e. 6 out of 21 peace agreements that year referenced women, girls and gender).[50]

Not all peace processes lead to sustainable peace. Inconclusive political settlements, a failure to address the root causes of a conflict, and ongoing insecurity and tensions have often led to non-compliance, violations and

[49] Caparini, M. and Alvarado Cóbar, J. F., 'Overcoming barriers to grassroots inclusion in peace processes', SIPRI WritePeace blog, 18 Feb. 2021; and Schneiker, A., 'The UN and women's marginalization in peace negotiations', *International Affairs*, vol. 97, no. 4 (July 2021), pp. 1165–82.

[50] Wise, L., 'Peace agreements with a gender perspective are still an exception, not the rule', LSE blog, 18 June 2021.

a recurrence of armed conflict. Since the mid 1990s most armed conflicts have been renewed outbreaks of old conflicts rather than conflicts over new issues, indicating that the root causes of conflicts are not being sufficiently addressed. Moreover, this blurred boundary between war and peace also makes it difficult to identify and conceptualize the end of an armed conflict.[51]

While many of the armed conflicts in 2021 were being addressed by ongoing or new peace processes, most—with a few notable exceptions, including a new ceasefire between India and Pakistan in their conflict over Kashmir—were either stalled or suffered serious setbacks. In Myanmar, for example, it was hoped that the November 2020 ceasefire between the Arakan Army and Myanmar's military might open up new opportunities for dialogue, but the military coup in February 2021 led to escalating violence across the country and an 18-fold increase in estimated conflict-related fatalities in 2021 compared to 2020. Similarly, in Sudan, the only sub-Saharan African country to make substantive progress in a peace process in 2020, a military coup occurred in October 2021 and conflict-related fatalities nearly doubled during the year.

Nonetheless, some of the greatest decreases in armed violence in 2021 took place in contexts where ceasefires and power-sharing agreements had been reached in 2020. In Libya, for example, where a nationwide ceasefire and a power-sharing agreement by rival governments was agreed in October 2020, estimated conflict fatalities decreased by 93 per cent in 2021 compared to the previous year. Elsewhere, as a result of the November 2020 ceasefire agreed in relation to the Nagorno-Karabakh conflict between Azerbaijan and Armenia, the number of fatalities was reduced from over 7000 in 2020 to just 57 in 2021. Similarly, in Syria, where a ceasefire was agreed in Idlib province in March 2020, the reduction was 29 per cent in 2021. In Yemen, however, despite the formation of a power-sharing cabinet between the Southern Transitional Council and the Hadi government in the southern governorates in late 2020, as well as international engagement in peace negotiations on the Houthi conflict, the decrease in estimated conflict-related fatalities was only 6 per cent (with over 28 000 estimated fatalities as fighting continued throughout 2021). Moreover, even where declines in violence occurred, the context remained deeply fragile and susceptible to further outbreaks of violence.

[51] De Franco, C., Engberg-Pedersen, A. and Mennecke, M., 'How do wars end? A multidisciplinary enquiry', *Journal of Strategic Studies*, vol. 42, no. 7 (2019), pp. 889–900. See also Krause, J., 'How do wars end? A strategic perspective', *Journal of Strategic Studies*, vol. 42, no. 7 (2019), pp. 920–45. On the peace agreement provisions consistently associated with successful war-to-peace transitions see Fontana, G., Siewert, M. B. and Yakinthou, C., 'Managing war-to-peace transitions after intra-state conflicts: Configurations of successful peace processes', *Journal of Intervention and Statebuilding*, vol. 15, no. 1 (2020), pp. 25–47.

Impact of Covid-19 on armed conflict

The UN secretary-general's call in 2020 for a Covid-19-related global ceasefire was largely ignored by the majority of conflict parties, who at best displayed a chiefly tokenistic commitment. Most of the ceasefires that took place were unilateral declarations, and many were temporary or conditional—overall, therefore, they represented only preliminary steps, with minimal material impact on levels of violence.[52] By the start of 2021 most conflict parties appeared to have adapted to the pandemic, which now simply formed part of the wider political context of armed conflicts and peace processes. Rather than being game-changing, the impact of Covid-19 on armed conflicts in 2020–21 was essentially minimal. In most cases armed conflict levels persisted, even increasing in a few instances due to conflict parties exploiting either state weakness or reduced international attention arising from the pandemic.[53] ACLED recorded a rise in demonstrations around the world in 2021 as social unrest continued to build during the second year of the pandemic, but only in Europe did most of these seem directly or indirectly attributable to Covid-19-related restrictions.[54] Some projections based on economic and development data estimate the pandemic may lead to increases in armed violence—driven by rising prices and falling incomes—in fragile states.[55]

[52] Guterres, A., 'The fury of the virus illustrates the folly of war', United Nations Covid-19 response, 23 Mar. 2020. See the discussion in *SIPRI Yearbook 2021*, pp. 43–46. On the Covid-19 pandemic see chapter 12, section I, in this volume.

[53] Ide, T., 'Covid-19 and armed conflict', *World Development*, vol. 140 (Apr. 2021); and Kishi, R., *A Year of Covid-19: The Pandemic's Impact on Global Conflict and Demonstration Trends* (ACLED: Apr. 2021).

[54] Lay (note 12), p. 3.

[55] Moyer, J. D. and Kaplan, O., 'Will the coronavirus fuel conflict?', *Foreign Policy*, 6 July 2020.