

CLIMATE CHANGE, ARMED CONFLICT, AND GLOBAL PUBLIC HEALTH

A REINFORCING CYCLE OF HARM



GLOBAL
CLIMATE & HEALTH
ALLIANCE

About



info@climateandhealthalliance.org
www.climateandhealthalliance.org

The mission of the Global Climate and Health Alliance (GCHA) is to build a healthier world for everyone by uniting and mobilising the global health community to accelerate climate action. With over 200 organisational members spanning every continent and more than 125 countries, GCHA works at the forefront of a global movement of health professionals and health and development organisations dedicated to promoting a healthy, equitable, and sustainable future for all. GCHA addresses the climate crisis through evidence-based advocacy, policy, movement building, research, and strategic communications.

Acknowledgements

This report, called for by the GCHA Board of Directors, was prepared by Rebecca Gilmour, under the guidance of Dr. Jeni Miller and the board.

GCHA is also deeply grateful to Dr. Maria Guevara from Médecins Sans Frontières (MSF), Dr. Farhang Tahzib from the European Public Health Association (EUPHA), and Stella Ziegler from the International Physicians for the Prevention of Nuclear War (IPPNW) for their valuable contributions, which helped shape GCHA's thinking in the development of this paper. Any mistakes or errors that remain are solely the responsibility of GCHA.

CONTENTS

Executive Summary 01

Introduction 03

Climate Change and Health 06

Armed Conflict and Health 08

Armed Conflict and the Environment 11

The Intersections of Climate Change, Armed Conflict, and Health 14

Impacts on Governance and Institutional Capacity 20

Compounding Impacts on Populations in the Most Vulnerable Settings and Situations 23

Post-conflict Reconstruction and its Carbon Footprint 26

The Digital Landscape 28

Peace, Resilience, and Climate Action can be Mutually Reinforcing in a Positive Way 30

Conclusion 32



An injured girl stand by a makeshift shelter in a Palestinian refugee camp.
Image Courtesy: Pexels

**Migrants from Latin America trying to cross
US-Mexico border near Ciudad Juarez to USA
turned back by border patrol.**

Image Courtesy: Dreamstime

EXECUTIVE SUMMARY

This report presents the current evidence on the intersecting nature of climate change and armed conflict, and its implications for global public health. 2026 has been a year of global turbulence. Climate change is intensifying, disproportionately affecting those who have contributed least to the crisis, and thereby increasing human inequality. Meanwhile, the global security landscape is characterised by record-high levels of armed conflict, posing a significant threat to global public health.



Compounding this, military activity, which is largely excluded from international climate accountability mechanisms, is estimated to account for approximately 5.5% of global greenhouse gas emissions, a figure that rises sharply during active armed conflict.

Amid both crises, a rapidly changing digital landscape is reshaping how information and disinformation circulate. In conflict-affected settings, the deliberate spread of false information is distorting public perception, eroding trust, and undermining humanitarian response. At the same time, in the context of climate change, disinformation is rapidly evolving, exploiting public anxiety and confusion, therefore obstructing the collective action that an effective response demands.

Evidence reviewed in this report demonstrates that these crises do not occur in isolation. Rather, they converge in a polycrisis, a condition in which climate change and armed conflict interact and amplify one another, generating a significant threat to global public health. Populations in vulnerable settings face compounded vulnerabilities, with refugees, asylum seekers, and internally displaced persons, women and girls, children, older adults, remote and rural communities, and Indigenous communities bearing a disproportionate burden of this convergence.

This polycrisis is not a future scenario. It is the present reality for millions of people around the globe. How the world chooses to respond, and for whom, will define the health and humanity of the twenty-first century. With that in mind, GCHA is calling for integrated climate, health, and peacebuilding approaches, including sustainable investment in climate-resilient health systems, stronger multilateral cooperation, a just energy transition and universal clean energy access, adherence to international humanitarian law, ensuring the protection of healthcare personnel and infrastructure and critical infrastructure, and greater accountability for greenhouse gas emissions from military activities, to ensure a sustainable future for generations to come.



Women carrying their belongings walking to military base after heavy rains and clan conflict displaced thousands in Jowhar, Somalia

Image Courtesy: Flickr



INTRODUCTION

Climate change and armed conflict both simultaneously pose significant threats to global public health.¹⁻² Climate change is a global phenomenon, accelerating at an unprecedented rate. It is a driver of rising temperatures, more frequent and intense weather events such as heatwaves, and increasing variability in rainfall patterns. These changes have resulted in environmental events such as prolonged droughts, more severe flooding, and a growing incidence of wildfires, collectively amplifying health risks globally.³⁻⁴

Climate change is a profound issue of equity and justice. Communities that have contributed least to climate change disproportionately experience the most severe health impacts,⁵ such as heat-related illnesses, infectious disease outbreaks, and worsening maternal and child health outcomes. These impacts simultaneously increase demand for health services while significantly impairing health systems' ability to respond. Moreover, climate change is rapidly undermining access to basic human needs, including food security, safe drinking water, sanitation, and clean air.⁶ The Intergovernmental Panel on Climate Change (IPCC) has noted that addressing climate change requires a focus on equity and fairness to avoid climate-induced harm.⁷ Climate change constitutes a global emergency and one of the greatest threats to global public health in the twenty-first century, with projections suggesting potentially catastrophic health consequences in the future.⁸

At the same time, armed conflicts have reached their highest level since World War II.⁹ At present, armed conflicts are dominated by the United States (US)-Israel-Iran war, Russia-Ukraine war, Israel-Hamas war, Sudan civil war, Myanmar civil war, and instability in Africa.¹⁰ Armed conflicts are increasingly becoming more protracted, fragmented, and severe, with civilians bearing a devastating cost.

The **Director-General of the International Committee of the Red Cross (ICRC)** stated,

“ If what we are seeing in Gaza, eastern Congo, Sudan, and Ukraine is the future of war, we should all be extremely concerned, as this would shake the very foundations of our humanity.¹¹ ”

Consequently, armed conflict has a profound impact on global public health, both directly through increased morbidity and mortality and indirectly through the disruption of health systems, pollution and eradication of food, water, livelihood, and electricity insecurity.¹² While constituting violations of international humanitarian law, the targeting of healthcare infrastructure and the weaponisation of healthcare continue in conflict-affected settings, as seen in Iran and Lebanon.¹³ Meanwhile, climate change acts as a driver of violent conflict in already precarious locations, further deepening this vicious cycle.

The United Nations (UN) estimates that humanitarian assistance and protection has been needed by approximately 239 million people globally in 2026, due to climate-related disasters, armed conflicts, and other drivers.¹⁴

In this report, we use the **definition of good health** described by the **World Health Organization (WHO)** as **“a state of complete physical, mental, and social well-being, rather than merely the absence of disease”**.¹⁵

In addition, we define good health as living in a safe environment with access to clean air and water, and the absence of fear.

With progress towards sustainable development dangerously off course,¹⁶ emerging research increasingly recognises the relationship between global peace and global public health. Fully 80% of WHO’s humanitarian workload and 70% of disease outbreaks that WHO responds to take place in conflict-affected settings. **WHO Director-General Dr Tedros Adhanom Ghebreyesus** has emphasised,

“There cannot be health without peace, and there cannot be peace without health”.¹⁷

However, it is important to note, that peace is more than an end to armed conflict.¹⁸

This report aims to examine the complex intersections and bi-directional influence between climate change and armed conflict, demonstrating how these interconnected crises intensify global public health vulnerabilities and threaten international security. It further underscores the critical importance of climate mitigation in reducing global risks and fostering stability, before ultimately highlighting the urgent need for integrated, evidence-based interventions to address these compounded and evolving threats.





Flood in Chennai, India

Image Courtesy: Noornisha

CLIMATE CHANGE AND HEALTH

Climate change, caused by increased greenhouse gases and aerosols within the atmosphere,¹⁹ poses a significant threat to global public health. In his opening speech at COP28 António Guterres, Secretary General of the UN, described climate efforts globally as a “*life-or-death struggle*” for both humanity’s safety and existence.²⁰⁻²¹

The Lancet Countdown on Health and Climate Change provides a comprehensive assessment of the relationship between climate change and health, showcasing

that climate-related health risks are reaching alarming new levels. In addition, international collaboration and climate agreements are becoming less of a priority in the current geopolitical landscape. This has led to the reversal of progress across key areas, further endangering global public health.²²

The WHO predicts an additional 250,000 excess deaths per year as a result of climate change.¹

Overall, documented health impacts include physical injury and mortality from extreme weather events, heat-related illness, cardiovascular and respiratory diseases, zoonotic and vector-borne diseases, malnutrition, food-borne diseases, non-communicable diseases (NCDs), and psychological health problems. At present, heat-related mortality globally averages an estimated 546,000 deaths annually.²² These health impacts disproportionately affect vulnerable populations, and place increasing pressure on health systems.^{1,8,22} Consequently, climate change intensifies vulnerabilities that contribute to migration and forced displacement, while also heightening the risk of instability and armed conflict. This particularly affects contexts marked by poverty and weak governance, where the risk of instability is already high, thereby worsening humanitarian need.²³⁻²⁶ This has led the Pan-European

Commission on Climate and Health, launched in May 2026, to call upon the WHO to formally declare climate change a public health emergency of international concern,²⁷ a call GCHA echoes.

Climate Change: One of Nine Planetary Boundaries

It is important to recognise that climate change is but one of several biophysical thresholds of our planet's systems that are under threat. If human pressures exceed those thresholds, irreversible environmental changes could occur that may destabilise the planet and both threaten global public health and humanity's existence.¹⁹ The nine planetary boundaries include climate change, novel entities, stratospheric ozone depletion, atmospheric aerosol loading, ocean acidification, modification of biogeochemical flows, freshwater change, land-system change, and biosphere integrity.¹⁹ Seven out of the nine planetary boundaries, including climate change, are currently being breached,²⁸ exacerbating food, water, and energy insecurity, and increasing the risk of disease, disaster, migration and displacement, as well as instability, and armed conflict.²³⁻²⁵ While it is beyond the scope of this paper to address the ways in which the breaches of other planetary boundaries intersect with climate change and conflict to harm health, it is important to be aware of this additional context.

ARMED CONFLICT AND HEALTH



Despite global peacebuilding efforts, armed conflict persists, and it has both immediate humanitarian consequences and long-term health implications.²⁹ Civilians and combatants may be killed or injured through physical violence, gender-based violence (GBV), mental and psychosocial harm, and the destruction of health infrastructure, as well as direct targeting of healthcare professionals, infringing the Geneva convention.³⁰ Indirect effects develop following the collapse of health systems intended to safeguard health, as well as from displacement and the deterioration of conditions essential for survival, such as access to food, safe water, and housing.³¹ These factors further restrict access to

adequate healthcare,²⁹ compounding the overall health impact of armed conflict.

While international humanitarian law exists to safeguard civilians, protect health, and protect the natural environment, unfortunately,³² compliance is not always respected in modern armed conflicts, which can have devastating consequences on health and the environment. The ICRC, drawing on international humanitarian law, recognises two types of armed conflict: international armed conflicts and non-international armed conflicts.³³ These categories encompass multiple forms of organised violence occurring at varying levels of intensity, ranging from low-level hostilities to high-intensity warfare and, in some contexts, war crimes such as genocide. Acknowledging these variations is key to understanding the scale and nature of health impacts, environmental damage, human rights violations, displacement, and mortality, all of which vary considerably across different conflict-affected settings.

With ongoing violations of IHL being extensively documented, it is clear that civilians are bearing the heaviest burden.

In 2024, the Safeguarding Health in Conflict Coalition (SHCC) documented 3,623 incidents of violence against or obstruction of healthcare during armed conflict, the highest number ever documented.³⁴

This was a 15% rise from 2023 and a 62% increase from 2022, due to devastating armed conflicts in Ukraine,

Sudan, Lebanon, Myanmar, and the occupied Palestinian territory.³⁴ For example, in Ukraine, healthcare infrastructure was repeatedly targeted throughout the armed conflict.

A total of 103 attacks were documented, including 89 directed at healthcare facilities and 13 involving healthcare transportation.³⁵

Such attacks contribute significantly to the deterioration and collapse of health systems, thereby exacerbating population vulnerability to health risks.



Disruption of Infectious Disease Surveillance Systems

Armed conflict can result in the emergence and spread of vaccine-preventable infectious diseases by severely disrupting early warning systems, disease surveillance, medical supply chains, lack of basic hygiene and hygienic equipment, contaminated drinking water, and vaccination programmes, in addition to insecurity and poor coordination among humanitarian aid agencies.³⁶⁻³⁷

Armed conflict plays a role in the transmission of infectious diseases such as cholera, COVID-19, tuberculosis, Ebola virus disease, poliomyelitis, malaria, leishmaniasis, measles, dengue, and acute bacterial meningitis.³⁸ As seen in

the Democratic Republic of the Congo (DRC) where the current Ebola virus disease outbreak is rapidly evolving in a complex humanitarian and conflict-affected setting. As of 17 June 2026, 896 confirmed cases, including 232 deaths, have been documented. The outbreak is impacting highly mobile and displaced populations with limited access to essential services, increasing the risk of transmission and placing further strains on the country's already fragile health system.³⁹ Infectious disease outbreaks pose a major threat to global public health, economic stability, and security,⁴⁰ as delayed detection and response prolongs human suffering and also increases the risk of epidemics.³⁸



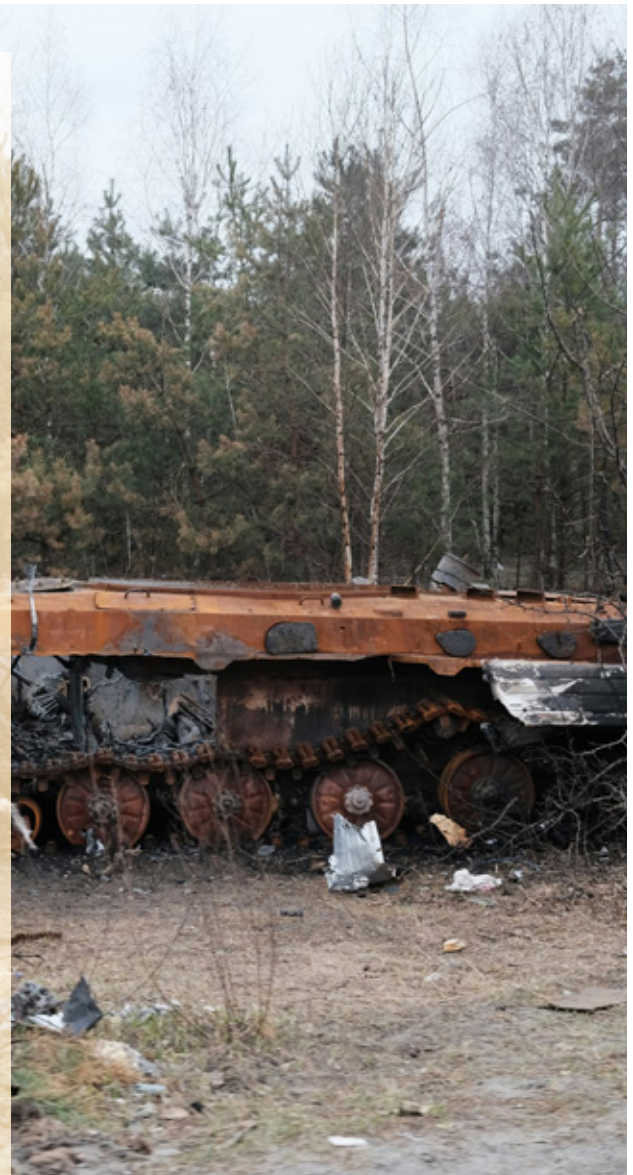
Destroyed ambulance in the City of Shijaiyah in the Gaza Strip.

Image Courtesy: Wikimedia Commons

Russian burned tank near Kyiv, Ukraine.

Image Courtesy: Unsplash

ARMED CONFLICT AND THE ENVIRONMENT



High-intensity and protracted armed conflicts have profound impacts on both urban and rural environments,⁴¹ creating severe humanitarian and ecological threats. Aerial bombardments are particularly destructive, damaging environmental conservation efforts, destroying forests, disrupting landscapes, and degrading soil health.⁴² The deterioration of essential soil properties reduces soil productivity and impairs other critical soil functions,⁴³ leading to adverse health outcomes, reduced agricultural production, and increased climate vulnerability.⁴⁴⁻⁴⁵

Armed conflict also devastates wildlife, disrupts ecological systems, and contaminates land, air, and water resources.⁴² Importantly, such pollution can persist long after active conflict has ended. For example, following the First World War, the region surrounding Ypres continues to exhibit elevated copper (Cu) concentrations due to the extensive use of copper-containing shells during the armed conflict.^{41,46}

Beyond incidental environmental destruction, the environment may also be deliberately targeted during warfare. As demonstrated during the US-Vietnam war, when the chemical defoliant Agent Orange was sprayed across large areas of rural land to remove dense jungle foliage and destroy food crops, resulting in severe long-term ecological and health consequences. More than fifty years later, the effects of Agent Orange continue to impact both Vietnamese civilians and military veterans. Approximately three million Americans served during the US-Vietnam War, many of whom, alongside Vietnamese civilians and combatants, were exposed to Agent Orange. Research has linked this exposure to lasting health conditions, including certain cancers, cardiovascular-related diseases, and mobility disabilities.⁴⁷⁻⁴⁹

The environmental degradation caused by armed conflict has significant implications for food security and sustainable development. Damage to soil health and agricultural land reduces agricultural productivity, thereby undermining progress toward the Sustainable Development Goals (SDGs) and the objectives of the Food and Agriculture Organisation (FAO), both of which depend upon consistent

and sustainable access to healthy soil. In recognition of the importance of soil health, the FAO and the Intergovernmental Technical Panel on Soils (ITPS) conducted the first global assessment of the world's soils in 2015. Alarmingly, the report concluded that approximately 33% of the world's soils are degraded, posing a serious threat to food security for millions of people.⁵⁰

Health, Humanitarian and Environmental Consequences of Nuclear Weapons

Nuclear weapons also have devastating consequences that persist long after their use in armed conflict. In addition to the immediate effects of extreme heat, radiation, and air blasts, such as physical trauma, radiation sickness, environmental devastation, and widespread destruction of infrastructure, they also cause profound long-term harm. Persistent radiation exposure can lead to transgenerational genetic mutations, contributing to infertility, miscarriages, disabilities, congenital abnormalities, and lasting psychological trauma. Radioactive contamination of the air, soil, and water has severe humanitarian and environmental consequences, including displacement, reduced access to healthcare, and enduring harm to future generations.⁵¹

Between 1945 and 2015, 2,055 nuclear explosions were conducted worldwide, most for the development and testing of nuclear weapons. These tests took place in the atmosphere, on the Earth's surface, underground, underwater, and in space, often on Indigenous and occupied lands. For example, nuclear-armed states,

including the US, the United Kingdom (UK), and France, have occupied and used Pacific Islands as nuclear testing sites, exploiting Indigenous lands to advance their nuclear capabilities. Exposure to radiation, toxic chemicals, and other pollutants has resulted in both immediate and long-term health consequences for affected populations. During the Second World War, two atomic bombs were used in combat, devastating Hiroshima and Nagasaki.⁵²

Military Emissions and Accountability

The military sector itself represents a major contributor to greenhouse gas emissions, with militaries accounting for approximately 5.5% of global carbon emissions. This figure can never be exact because military emissions remain excluded from international climate accountability mechanisms,⁵³⁻⁵⁴ showcasing a significant gap in reporting and accountability. The environmental consequences of military activity can be particularly severe during armed conflicts. For example, an analysis found that the US-Israeli military operation in Iran, Operation Epic Fury, launched on 28 February 2026, generated approximately 5 million tonnes of carbon dioxide (CO₂) within just 14 days, which is the equivalent to the annual CO₂ emissions of approximately 1.1 million petrol cars,⁵⁵ underscoring the significant climate impacts that can arise from modern warfare.

Recent research shows that higher global military expenditure is linked to higher CO₂ emissions. A recent study highlights the significant environmental implications of

military expenditure, finding that increases in military spending during armed conflicts, such as the War on Terror and the Russia-Ukraine war, contributed to approximately 27% of the change in global CO₂ emission intensity between 1995 and 2023.⁵⁶ If global military expenditure continues to increase, it may become unrealistic to meet international climate targets, highlighting the importance of peace to effectively limit global warming.

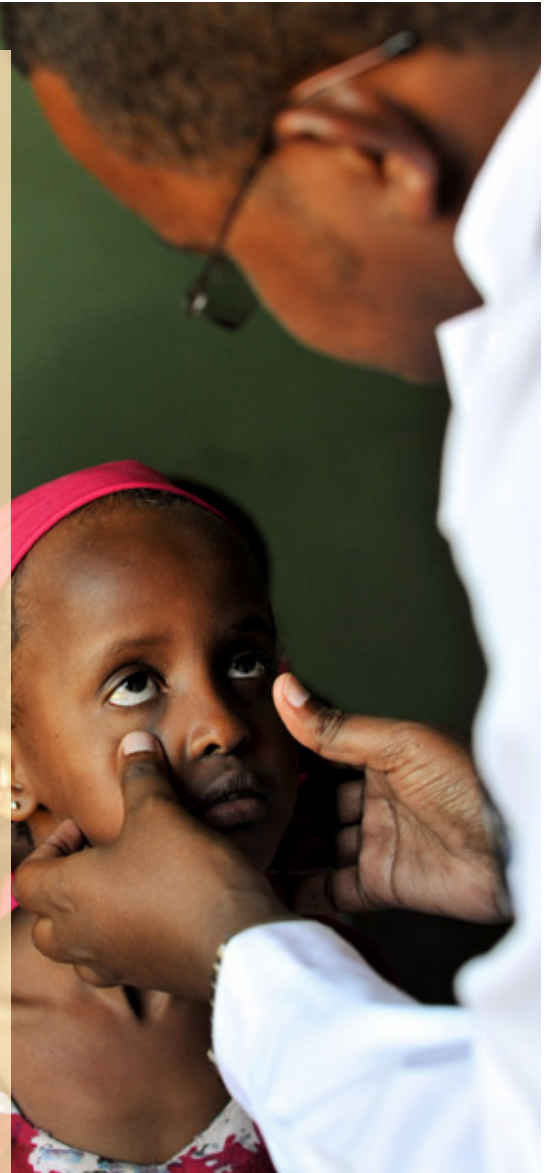
Gaza, Palestine: A huge explosion in a building as a result of a bombing by Israeli warplanes
Image Courtesy: Unsplash



A doctor examines a Somali child displaced by the civil war at Hawa Abdi Centre.

Image Courtesy: Flickr

THE INTERSECTIONS OF CLIMATE CHANGE, ARMED CONFLICT, AND HEALTH



Climate Change as a Threat Multiplier Exacerbating Conflict

A growing body of rigorous research in political science, economics, and other disciplines has frequently shown that climate change acts as a “**threat multiplier**” in several regions globally.^{22,57} Climate change interacts with and intensifies pre-existing vulnerabilities in social, economic, political, and security systems,⁵⁸ by straining governance capacity, aggravating resource competition, and deepening economic hardship in already fragile settings. These effects are compounded by structural conditions such as poverty, weak governance, and inequality, which increase the risk of

armed conflict²⁶ and create environments in which climate-related stresses are more likely to translate into broader social and political instability.

Climate-related Disasters, Resource Scarcity, and Armed Conflict

As climate change intensifies and the frequency of extreme weather events increases, agricultural systems are disrupted⁵⁹ and the global availability of essential natural resources declines, resulting in shortages of food, water, and livelihoods,⁶⁰⁻⁶¹ impacting people's health, and creating or exacerbating tensions. South Sudan is one of the world's most climate-vulnerable countries, experiencing frequent, extreme, and prolonged heatwaves, droughts, and flooding. These hazards undermine livelihoods and intensify competition for scarce resources. The country is heavily dependent on agriculture, with over 95% of the population reliant on climate-sensitive livelihoods.⁶² Agriculture accounts for approximately one-third of gross domestic product (GDP), and an estimated half of the population is engaged in agricultural activities.⁶³ Recurring climate-related disasters in South Sudan have severely impacted agricultural land, contributing to acute food insecurity. In 2023, over 7.8 million people faced food insecurity, up from 6.3 million in 2022.⁶⁴

Climate change also profoundly disrupts the water-energy nexus. Shifting rainfall patterns, and prolonged droughts in the Middle East and North Africa (MENA) region are reducing water availability and threatening energy security. Predictions indicate a significant increase in global

warming by the end of the 21st century.⁶⁵ As one of the world's most climate-vulnerable regions, the MENA region is projected to be disproportionately affected by this warming.⁶⁶ There is a high demand for electricity within the MENA region, and without a clear and targeted action plan, the region will be unable to meet the energy demands of its entire population.⁶⁷ Previously, energy security strategies have relied on fossil fuels. However, there is an increasing shift toward renewable energy sources to enhance energy security while reducing environmental damage and health implications associated with fossil fuels.⁶⁸

Resource Scarcity, Migration and Forced Displacement

Climate change and forced displacement are increasingly interconnected,^{26,61,69} with impacts on health and on peace and security. When a shortage of resources affects populations, it often leads to increased rural-to-urban migration and displacement, particularly in agriculturally dependent regions.⁷⁰

In 2026, 123 million people have been forcibly displaced worldwide, millions of those due to climate-related disasters.³¹

showing how climate-related disasters are among the main current drivers of migration and forced displacement.⁷¹

In 2024, the United Nations High Commissioner for Refugees (UNHCR) reported that more than 120 million people were forcibly displaced worldwide.

Of these, 75% were living in countries severely affected by climate change, while 50% resided in regions experiencing the combined impacts climate-related and armed conflict threats, including Ethiopia, Haiti, Myanmar, Somalia, Sudan, and Syria.⁷² As climate change continues to drive rising temperatures and increase the frequency and severity of environmental hazards, levels of migration and displacement are expected to rise unless effective and sustainable action is taken.

Projections indicate that, by 2040, the number of countries facing extreme climate-related hazards could increase from 3 to 65, the majority of which host displaced populations.⁷³

Refugees and migrants have distinct and often complex health needs. They face a range of health risks before, during, and after displacement, while access to primary healthcare and continuity of care are frequently disrupted. These challenges may arise from migration itself, weakened health

systems, barriers to accessing services, and a range of additional stressors, including abuse, exploitation, and other forms of vulnerability.⁷⁴

In West Africa's Sahel region, temperatures are rising approximately 1.5 times faster than the global average, substantially exacerbating food and water insecurity, posing a serious threat to public health, and increasing humanitarian need.⁷⁵⁻⁷⁶ Climate projections indicate that the region will continue to warm, with temperatures expected to increase by between 2.0 and 4.3 °C by 2080.⁷⁷ Agriculture remains the primary source of livelihood for the majority of the population in the Sahel.⁷⁸ However, climate-related disasters, including severe droughts and extreme flooding, are becoming increasingly frequent and intense,⁷⁹ contributing to resource scarcity, rural-to-urban migration and displacement, violence, instability, and armed conflict across the region.^{75,77} As of early 2026, an estimated 2.9 million people were internally displaced within the Sahel region as a result of the combined impacts of these environmental and socio-political pressures.⁷⁶



Rohingya refugees wait for treatment in temporary makeshift medical camp in Cox's Bazar, Bangladesh.
Image Courtesy: Dreamstime

A growing amount of evidence suggests migration and displacement following climate-related disasters can fuel violence, instability, and armed conflict,^{21-23,26-27,70,73,80} thereby highlighting climate change as a potential threat to global peace. However, other scholars argue that although climate-related disasters often generate adverse economic consequences, these impacts do not translate directly into an increased risk of armed conflict, despite the notable rise in both climate-related disasters and armed conflict over time.⁸¹⁻⁸² Nevertheless, in countries characterised by the political exclusion of ethnic groups, limited economic development, and large populations, climate-related disasters can significantly increase the risk of armed conflict.⁸³

Scholars suggest that deteriorating ecological conditions in Syria, including the 2006-2009 extreme and prolonged droughts in the north east, contributed to agricultural failures, economic disruption, and mass rural-to-urban population displacement. The origins of Syria's armed conflict are debated, with some researchers questioning the extent to which the climate-related disasters played a role, and some findings indicating that there is no clear evidence linking the droughts in northeast Syria to large-scale migration that ultimately led to the armed conflict.⁸⁴ However other research supports that 1.5 million people were internally displaced by the extreme and prolonged droughts, exposing pre-existing governance failures and fueling protests, which ultimately escalated into the armed conflict.^{23,85-86}

Targeting and Collapse of Critical Infrastructure During Armed Conflict

Critical infrastructure such as waste management systems, water, sanitation, and hygiene (WASH) facilities, and energy infrastructure is often targeted during armed conflict. This is an increasingly prevalent practice which has been showcased in armed conflicts in the MENA region.⁸⁷ Targeting critical infrastructure during armed conflict can have devastating health and humanitarian consequences. For example, the armed conflict in Gaza has resulted in widespread environmental damage, social instability, and complete economic collapse, posing significant barriers to sustainable development.⁸⁸ Satellite imagery has revealed the extensive and catastrophic destruction of infrastructure, showcasing the almost complete devastation of public facilities and essential services.⁸⁹ Waste management systems and WASH facilities have been significantly damaged and rendered inoperable, resulting in refuse accumulating in open spaces and creating the conditions for the spread of disease. Pollutants can also spread through air, water, and soil,⁹⁰ all of which poses a threat to global public health.

Targeted attacks on critical fuel and energy infrastructure further showcase how armed conflict creates acute environmental and public health implications. For example, during the recent US-Israel-Iran armed conflict, fuel and energy infrastructure have been frequently targeted within the Gulf region. Military strikes on fuel depots near Tehran released toxic pollutants

such as hydrocarbons, sulfur oxides, and nitrogen compounds, into the air, resulting in a phenomenon known as “**black rain**”. This can have long term implications for the environment, including the contamination of soil and water systems. Sustained exposure to these pollutants poses significant public health risks. These include an increased risk of cardiovascular conditions, respiratory diseases, and various forms of cancer.⁹¹ Damaged fuel and energy infrastructure can leak hazardous chemicals and release greenhouse gases, worsening air and water pollution, harming the environment and livelihoods, and further intensifying the climate crisis.⁹¹ Additionally, attacks on energy infrastructure can leave populations without access to electricity for essential needs, ranging from cooking and refrigeration, to core businesses, schools, lighting in homes, and power for healthcare facilities.

Armed Conflict-driven Energy Crisis and Fossil Fuel Dependency

The US-Israel-Iran armed conflict has highlighted how vulnerable the world remains due to its dependence on fossil fuels, and the failure to transition away from them has been financially costly. Threats to shipping through the Strait of Hormuz during the armed conflict have disrupted oil and liquefied natural gas exports. This has had major implications for global energy security and the global economy. **Fatih Birol, Executive Director of the International Energy Agency (IEA)**, has stated that the situation represents

Since the beginning of the conflict, the prices of oil and liquid natural gas (LNG) have risen sharply, placing the greatest burden on lower-income countries, which have the least capacity to absorb such shocks. Asia has been significantly impacted by the conflict. In 2024, over 80% of the oil and LNG that was shipped through the Strait of Hormuz went to Asia, specifically China, India, Japan and South Korea.⁹⁴ Importing 98% of its fuel from the Middle East, the Philippines has been severely impacted. Notably, an increase of 95% in fuel prices resulted in President Ferdinand Marcos Jr. declaring a national energy emergency.⁹⁵ This underscores the broader global economic consequences of the armed conflict.⁹⁶

As the global food system is currently deeply dependent on fossil fuel-based pesticides and fertilisers, as well as fossil fuel-powered processing and transport, the armed conflict is also having downstream impacts on global food production.⁹⁷ Compounded by the effects of climate change and projections of an unusually powerful El Niño later this year, some analysts predict significant food shortages, hunger, and even famine in parts of the world by late 2026.⁹⁸⁻⁹⁹ The impact of the armed conflict on agrochemical prices and food production highlights the urgent need to transition food systems away from dependence on fossil fuels toward agricultural approaches such as regenerative agriculture, which improves soil health, produces more nutrient-dense foods, and is more resilient to a changing climate.

“ the greatest threat to global energy security in history.”⁹²⁻⁹³

Fuel price hike due to the war in Iran and the
blockade of the Gulf of Oman.
Image Courtesy: Dreamstime



Meanwhile, the armed conflict has heavily impacted the price of fuel, leading to climate advocates and world leaders to call for an accelerated transition away from fossil fuels by expanding renewable energy capacity and fostering lasting energy security.

With the UN secretary general, António Guterres, stating that **“our addiction to fossil fuels is destabilising both the climate and global security”**.¹⁰⁰

South Korea's President Lee Jae Myung plans to use the Iran crisis to accelerate the country's clean energy transition by adding political urgency and by increasing funding to transform South Korea's solar industry. Given that more than 90% of South Korea's primary energy imports pass through the Strait of Hormuz, the government increasingly recognises fossil fuel dependence as both dangerous and a structural vulnerability, arguing that long-term energy security depends on a faster transition to renewables.¹⁰¹ In turn, the “*Transitioning Away from Fossil Fuels*” conference, held in Santa Marta in April 2026, came at a relevant time. Fifty-seven countries, accounting for one-third of the global economy, attended the conference.¹⁰² While many countries acknowledged the importance of the transition for energy security, concerningly, the health impacts of fossil fuels, which are considered one of the most critical reasons to transition away from them, did not receive sufficient attention at the conference.

UNHCR integrated center for Ukrainian refugees due to the Russian invasion of Ukraine.

Image Courtesy: Dreamstime

IMPACTS ON GOVERNANCE AND INSTITUTIONAL CAPACITY



Global Governance and Military Finance

In 2026, global governance and finance have become heavily politicised, with power imbalances and external influences from outside the health sector increasingly shaping the global health environment and weakening effective health governance. Resources intended to build resilience and human security are being diverted away from essential services such as health and humanitarian aid, and towards economic interests and military and defence spending.^{31,103}

In total, global military spending increased by 7.4% in 2024, marking the largest increase in recent times, with spending amounting to over \$2.7 trillion,¹⁰⁴ the approximate amount required to decarbonise the energy sector.²

***The Lancet report on Health, Conflict and Forced Displacement stated that \$23 billion is needed to meet the most life-threatening needs, this is approximately 1% of annual global military spending.*³¹**

In January 2026, the US suspended foreign aid and withdrew from 66 key international institutions and agreements, including the WHO and the Paris Agreement. The US was the largest contributor to the WHO between 2022 and 2023, providing 12-15% of the organisation's total funding. Its withdrawal threatens essential public health programs addressing human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS), maternal and child health, and infectious diseases programs such as tuberculosis and malaria, which are heavily dependent on external funding.¹⁰⁵ It also raises further concerns about the stability of global health and climate governance.¹⁰⁶ Together, these reallocations and withdrawals risk weakening global health systems and disrupting responses to health emergencies in some of the world's most vulnerable countries, undermining long-term resilience and exacerbating existing health inequities.

Reduced Adaptive Capacity and Heightened Climate Vulnerability

In conflict-affected settings, weak institutional capacity, limited state presence, and eroding public trust can prolong hostilities and undermine peacebuilding efforts. Armed conflict exacerbates existing social, political, and economic inequalities, as well as systemic challenges related to food security, water security, and equitable healthcare, resulting in significant health consequences and profoundly undermining resilience, mitigation, and adaptive capacity to climate change.^{64,107-108}



Children stretch out their hands at the Dadaab refugee camp, Somalia.

Image Courtesy: Dreamstime



Image Courtesy: Pexels

For example, climate change is intensifying environmental challenges in Yemen, particularly in the context of the ongoing armed conflict.¹⁰⁹ Yemen is among the most water-scarce countries in the world,¹¹⁰ and is increasingly affected by rising temperatures, altered rainfall patterns, sea-level rise, desertification, and biodiversity loss. These environmental changes have adversely impacted agricultural production, contributed to outbreaks of infectious diseases such as malaria, and increased risks to coastal cities including Aden and Al-Hodeidah.¹¹¹ Yemen has also experienced more frequent and intense weather events such as severe cyclones and extreme floods, resulting in significant loss of life and damage to critical infrastructure.¹¹²⁻¹¹³ Despite these escalating threats, the armed conflict has resulted in attention and resources being diverted away from environmental governance, limiting the capacity of Yemeni authorities to respond effectively to the impacts of climate change.¹¹¹ As a result, humanitarian needs have reached critical levels: more than 21 million people require humanitarian assistance, 20.3 million need healthcare services, 17.3 million face food insecurity, and 15.3 million lack access to clean water, sanitation, and hygiene.¹¹⁴ This situation illustrates the complex interaction between armed conflict and vulnerability to climate change, supporting evidence that armed conflict can heighten susceptibility to climate-related hazards and exacerbate humanitarian crises.¹¹⁵⁻¹¹⁸

**A Rohingya refugee mother and a new born baby and
at the makeshift camp in Cox's Bazar, Bangladesh.**

Image Courtesy: Dreamstime

COMPOUNDING IMPACTS ON POPULATIONS IN THE MOST VULNERABLE SETTINGS AND SITUATIONS



Refugees, asylum seekers, and internally displaced persons face greater exposure to malnutrition, dehydration, infectious diseases, mental health disorders, and injury due to overcrowded living conditions, limited healthcare access and health services disruptions, and prolonged uncertainty, specifically in contexts where there are repeated climate-related disasters and insecurity.¹¹⁹⁻¹²⁰ For example, since April 2023, more than 14.5 million people have been displaced in South Sudan. In refugee camps, 30% of children face malnutrition, there have been outbreaks of waterborne diseases such as cholera due to inadequate access to WASH facilities, and widespread psychological health issues have been reported.¹²¹

Women and girls experience disproportionate burdens from the compounding pressures arising from the interconnected nature of climate change and armed conflict,¹²² with existing vulnerabilities increasing risks to both physical health and mental well-being.

Approximately 17% of the global female population lived within 50 kilometres of an armed conflict in 2024.¹²³

Persistent poverty, limited access to social services, and reliance on climate-sensitive, natural resource-based livelihoods further heighten their vulnerability.¹²⁴ These conditions often shift women's social and economic roles, increasing household and agricultural responsibilities which

contribute to adverse health outcomes, including poorer mental health, higher disease prevalence, compromised sexual and reproductive health, and greater food insecurity.¹²⁴⁻¹²⁵ For example, in Ethiopia, frequent climate-related disasters and armed conflict has increased humanitarian need.¹²⁶ Notably, 5.8 million women and girls require gender-based violence services.¹²⁷

Additionally, a growing body of evidence has documented the long-term consequences for children, with exposure to severe malnutrition during childhood being consistently associated with increased health risks such as cardiovascular disease, hypertension, impaired glucose metabolism, and metabolic syndrome in later in life.^{125,128-129} One example is the child nutrition crisis in



Sub-Saharan Africa, where climate-related disasters such as prolonged drought and severe flooding interacted with armed conflict, resulting in disrupted food systems, population displacement, and restricted access to health and nutrition services. This led to a rising number of acute and chronic forms of child undernutrition.¹³⁰

Older adults are disproportionately vulnerable to the adverse health impacts of crises, which exacerbate pre-existing health inequalities and age-related physiological decline.¹³¹ These health inequalities are driven by disparities in vulnerability and resilience, shaped by socioeconomic status, displacement, social isolation, and limited inclusion of older adults in planning and response. As a result, older persons are less able to adapt to or recover from climate- and conflict-related disasters, leading to worsened physical and mental health outcomes and heightened risk of neglect and preventable mortality.¹³² For example, in Syria, older adults experienced inconsistent access to healthcare and essential medicine, exacerbating preventable health conditions.¹³³ A study exploring the health needs of older Syrian refugees in Lebanon found that two-thirds described their health status as poor or

very poor. The majority reported having one or more NCD including hypertension (60%), diabetes (47%), and cardiovascular disease (30%). Physical limitations were commonly identified, with 47% reporting difficulty walking, 24% reporting vision loss, and approximately 10% being physically unable to leave their homes. A large percentage also reported mental health challenges, including depression and anxiety, as well as feelings of loneliness and being a burden to their families.¹³⁴

Remote and rural communities face compounded health risks due to geographic isolation, climate-sensitive livelihoods, and limited access to resilient health infrastructure, which constrains their adaptive capacity,¹³⁵⁻¹³⁶ while Indigenous communities experience additional harms through the loss of ancestral lands, forced migration, cultural disruption, and exclusion from decision-making processes critical to adaptation.¹³⁷⁻¹³⁸ For example, in Alta Verapaz, Guatemala due to frequent climate-related disasters, food insecurity, and institutional failures, Indigenous communities, which make 43.75% of Guatemala's population, are facing increased health risks.¹³⁸⁻¹³⁹

A destroyed urban area in Idlib, Syria depicting the aftermath of conflict and devastation.

Image Courtesy: Pexels

POST-CONFLICT RECONSTRUCTION AND ITS CARBON FOOTPRINT



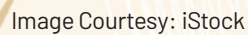
Greenhouse gas emissions are strongly associated with post-conflict reconstruction, including the carbon emissions associated with debris removal, the environmental restoration of damaged sites, and mass rebuilding efforts.¹⁴⁰ Infrastructure development and reconstruction account for 32% of global energy consumption, which represents a substantial share of total energy use, and are responsible for 34% of global CO₂ emissions, more than the transport and agriculture sectors combined.¹⁴¹

Following the Russian invasion of Ukraine on the 24th February 2022, a significant amount of infrastructure has been destroyed. Research undertaken to estimate the projected carbon footprint of the reconstruction of this infrastructure post conflict indicates that it will reach approximately 741 MtCO₂ over a 10-year period, representing a 310% increase compared to pre-conflict annual emissions.¹⁴² Removing the large volume of debris in Gaza in prior to the reconstruction of infrastructure is estimated to generate approximately 2,975.91 tonnes of CO₂e (carbon dioxide equivalent).¹⁴³

This is a significant amount, and it is important to note that this figure accounts only for debris removal. The reconstruction of infrastructure will result in additional CO₂ emissions. While this research provides an estimate of the forecasted carbon footprint associated with post-conflict infrastructure reconstruction, research on the overall carbon footprint of debris removal, the environmental restoration of damaged sites, and infrastructure reconstruction remains limited, and further research is required to fully understand this phenomenon.



A man standing in front of a damaged building in Kyiv, Ukraine.
Image Courtesy: Pexels



The digital landscape is rapidly changing and adding an additional layer of complexity to the intersecting polycrisis of climate change and armed conflict. The rise of AI and the spread of disinformation is posing new and additional global risks. The World Economic Forum “*Global Risks Report 2026*” ranked misinformation as the second most severe short-term risk globally.¹⁴⁴

AI generated content can accelerate the spread of health disinformation during complex humanitarian crises which, in turn, can distort public perception, erode trust,¹⁴⁵ and undermine humanitarian response, which effective crisis management depends on.¹⁴⁶

Concerningly, AI is increasingly being used during armed conflict, in activities including intelligence, surveillance and reconnaissance, weapon systems, and cyber and information operations. The Stockholm International Peace Research Institute (SIPRI) argues that without effective international regulation and meaningful human control, the growing use of AI during armed conflict could undermine compliance with international humanitarian law and make the use of force more difficult to control.¹⁴⁷ Moreover, the rapidly evolving digital landscape is having a significant impact on the environment, with AI intensifying the demand for energy, while at the same time contributing substantially to CO₂ emissions, at a time when the world is failing to achieve climate goals.¹⁴⁸

Together, this convergence of interconnected and mutually reinforcing challenges threatens human health and sustainable development. The dangerous and disruptive effects of climate change are intensifying, while armed conflicts are becoming more frequent and increasingly severe. At the same time, the rapid rise of AI and social media platforms is accelerating the spread of misinformation and disinformation, increasing vulnerabilities globally. Across the globe, millions of people continue to face poverty, discrimination, violence, and instability, denying them access to the fundamental necessities of life, including healthcare, a safe living environment, access to clean air and water, and an absence of fear. These interconnected challenges are increasingly eroding trust and solidarity among people, the very values that are essential to building resilience and securing a more sustainable and equitable future for both people and planet.¹⁴⁹⁻¹⁵⁰

Family fun near windmills showcases global
innovation in renewable energy.

Image Courtesy: iStock

PEACE, RESILIENCE, AND CLIMATE ACTION CAN BE MUTUALLY REINFORCING IN A POSITIVE WAY



In both conflict-affected and climate-vulnerable settings, the breakdown of essential services is one of the most immediate and disruptive consequences of a crisis. Healthcare facilities without electricity cannot store vaccines or operate life-saving equipment.¹⁵¹ Renewable energy provides a fast and dependable way to restore these services and, in turn, is an effective tool for efforts to achieve sustainable peace.¹⁵²

This has been demonstrated in Jordan, a country that faces severe pressures, including environmental and social pressures. It is one of the world's most water-scarce countries, hosting approximately three million refugees, which is the second highest globally, with instability in neighboring countries. Consequently, Jordan confronts rising demand for resources such as water and energy, particularly in refugee-hosting communities.¹⁵³⁻¹⁵⁵ These pressures risk exacerbating tensions, fueling public resentment toward refugees, and straining limited resources. In the face of escalating global climate challenges, Jordan has taken active steps to adapt to climate change, by implementing policies and initiatives to promote the use of renewable

energy, increase energy efficiency, and reduce greenhouse gas emissions. They have become a renewable energy pioneer within the Middle East, with nearly 29% of its electricity generated from solar and wind power,¹⁵⁵ reducing reliance on imported energy, lowering environmental impact, and creating a more sustainable development pathway. Climate finance in Jordan has enabled investments in renewable energy and climate adaptation, which is supporting both peace and stability. One example is the Za'atari Refugee Camp, which hosts the largest solar plant of any refugee camp globally and supplies clean energy to around 80,000 refugees,¹⁵⁴ showcasing climate action as an investment in peace, resilience, and stability.



A happy child peeks out from a tent entrance in Idlib, Syria, offering a glimpse of hope.

Image Courtesy: Pexels



CONCLUSION

Climate change and armed conflict are deeply interconnected and mutually reinforcing drivers of harm. It is clear from the evidence that climate change acts as a threat multiplier, intensifying climate-related disasters, and triggering resource scarcity that drives displacement, instability, and violence. In turn, armed conflict accelerates the very crisis that fuels further instability, with militaries being amongst the world's major polluters, and the environmental consequences of armed conflict extend far beyond its duration.

Armed conflict often results in the targeting and destruction of healthcare, environmental, and critical infrastructure,

disrupting energy systems and undermining access to essential services. Continued reliance on fossil fuels deepens this cycle, as demonstrated by recent armed conflicts in which the destruction of energy infrastructure has generated severe regional and global consequences.

These intersecting crises represent some of the most significant threats to health and health equity, disproportionately affecting those least responsible for causing them. The rapid rise of AI, social media platforms, and the spread of disinformation are compounding this polycrisis further, distorting public understanding, delaying coordinated action, and deepening political divisions at precisely the moment when collective resolve is most needed, gradually eroding the trust and solidarity on which resilience depends on.

Sustainable peace strengthens climate adaptation and resilience. Meanwhile, improvements in health governance must be accompanied by climate and conflict sensitive approaches that prioritise both preparedness and resilience. Recognising the interconnected nature of climate change and armed conflict is essential to addressing humanitarian needs and delivering effective health responses in increasingly complex environments. These intersecting threats require integrated, cross-sectoral approaches that hold all actors to account and prioritise the needs and insights of the most affected communities in policy and practice.

Recommendations

- Both climate change and armed conflict must be recognised as threats that drive or exacerbate food, water, livelihood, and energy insecurity, migration and forced displacement, and that interact with and exacerbate each other, with severe implications for global public health.
- Governments and international financial actors need to increase investment in climate adaptation, building resilient health systems, including renewable-powered healthcare facilities, and humanitarian response. This is essential to enabling communities to better anticipate, withstand, and recover from climate- and conflict-related disasters.
- Healthcare professionals are well positioned to address the health impacts of climate change, through evidence-based interventions such as education, evidence-based advocacy, and policy engagement.

- Healthcare must not be instrumentalised for political gain, and the principle of medical impartiality must always be upheld. The primary responsibility of healthcare professionals remains the delivery of quality, trusted care to the communities they serve. In conflict-affected settings, trust is fundamental to ensuring access to healthcare. Healthcare professionals may need to prioritise medical impartiality and maintaining trust, over any advocacy and policy engagement, in order to uphold their duty of care, ensure humanitarian access, protect patient safety, and ensure the sustainable delivery of care.
- The protection of healthcare, healthcare professionals, and critical infrastructure in accordance with international humanitarian law must be maintained, recognising that attacks on critical infrastructure have severe and lasting consequences for global public health, climate resilience, and long-term sustainable development.
- Environmental risk assessments should be systematically adapted and integrated into conflict prevention, peacebuilding, humanitarian response, and health system building and strengthening, as an integrated approach to help break the reinforcing cycle of climate impacts, worsening health outcomes, and increasing instability.
- Strengthening food systems is critical to building resilience and reducing the risks of food insecurity and malnutrition, which can, in turn, contribute to instability. Additionally, protecting agricultural workers from the impacts of climate-related disasters can help mitigate economic shocks and reduce the risk of violence, instability, and armed conflict.
- In a time of increasing geopolitical confrontation, strengthening multilateral cooperation and ensuring a just transition to a low-carbon future will be essential for building and sustaining peace in a world that is increasingly impacted by the effects of climate change. This should be prioritised to address shared global risks, strengthen resilience, and promote long-term global stability and peace.
- Promote meaningful and inclusive community engagement in climate, health, and peace governance among populations living in vulnerable settings. Strengthening participatory decision-making processes is essential to addressing the structural drivers of vulnerability. Empowering communities to shape governance agendas can enhance resilience and foster more equitable and sustainable outcomes across climate, health, and peacebuilding efforts.
- The military's impact on the environment and its contribution to climate change can no longer be ignored. Transparent and comprehensive reporting of military greenhouse gas emissions should be mandated to improve accountability and inform climate policy.
- Post-armed conflict reconstruction efforts should prioritise low-carbon, climate-resilient infrastructure, and sustainable development approaches to reduce emissions while strengthening long-term health, resilience, and recovery.
- Governments, technology platforms, and healthcare institutions should play an active role in strengthening efforts to monitor and counter the spread of health and climate disinformation and misinformation that undermines effective humanitarian response, erodes public trust in health institutions, and delays or undermines effective climate policy-making, particularly in climate-vulnerable and conflict-affected settings.

References

1. World Health Organisation (WHO). Climate Change. [online]. WHO: Geneva; 2023 [Accessed 15 May 2026]. Available from: <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>
2. Šedová B, Haines A. Tackling the complex links between climate change, conflict, and health. *BMJ*. 2025 Nov 5;391:r1578. Available from: <https://doi.org/10.1136/bmj.r157>
3. Gabric AJ. The Climate Change Crisis: A Review of Its Causes and Possible Responses. *Atmosphere*. 2023 June 27;14(7):1081. Available from: <https://doi.org/10.3390/atmos14071081>
4. Maslin M, Ramnath RD, Welsh GI, Sisodiya SM. Understanding the health impacts of the climate crisis. *Future Healthcare Journal*. 2025 Mar;12(1):100240. Available from: <https://doi.org/10.1016/j.fhj.2025.100240>
5. Oxfam. What is climate justice? [Online]. Oxfam: Boston; 2025 [Accessed 13 February 2026]. Available from: <https://www.oxfamamerica.org/explore/issues/climate-action/climate-justice/>
6. World Bank. Health and Climate Change. [Online]. World Bank: Washington; 2025 [Accessed 21 June 2026]. Available from: <https://www.worldbank.org/en/topic/health/brief/health-and-climate-change>
7. Intergovernmental Panel On Climate Change (IPCC). Climate Change 2022 – Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Online]. 1st edn. Cambridge University Press; 2023 [16 Feb 2026]. Available from: <https://www.cambridge.org/core/product/identifier/9781009325844/type/book doi:10.1017/9781009325844>
8. Watts N, Adger WN, Agnolucci P, Blackstock J, Byass P, Cai W, et al. Health and climate change: policy responses to protect public health. *The Lancet*. 2015 Nov; 386(10006):1861–914. Available from: [https://doi.org/10.1016/S0140-6736\(15\)60854-6](https://doi.org/10.1016/S0140-6736(15)60854-6)
9. Rustad SA. Conflict trends: A global overview, 1946-2024. Oslo: Peace Research Institute Oslo (PRIO); 2025. 1 p. (PRIO paper).
10. Statista. Conflicts worldwide 2026 - statistics & facts. [Online]. Hamburg: Statista; 2026 [Accessed 25 May 2026]. Available from: <https://www.statista.com/topics/13125/conflicts-worldwide-2025/?srsltid=AfmBOopjii4DLM8t6cmivIEz6PSU3PRacUPDnku8MOA5TIS14aRF45WV#topFacts>
11. International Committee of the Red Cross (ICRC). Humanitarian Outlook 2026: A world succumbing to war. [Online]. ICRC: Geneva; 2008 [Accessed 9 June 2026]. Available from: <https://www.icrc.org/en/article/humanitarian-outlook-2026>
12. Levy BS. The impacts of war on health, human rights, and the environment—an overview. *Front Public Health*. 2025 Sept 17;13:1547784. Available from: <https://doi.org/10.3389/fpubh.2025.1547784>
13. Mahase E. Iran war: 43 attacks on healthcare facilities in Iran and Lebanon, WHO says, as thousands killed. *BMJ*. 2026 Mar 12;392:s484. Available from: <https://doi.org/10.1136/bmj.s484>

14. United Nations (UN). Crisis and Emergency Response. [Online]. UN: Geneva; 2026 [Accessed 25 May 2026]. Available from: <https://www.un.org/en/global-issues/crisis-and-emergency-response>
15. World Health Organisation (WHO). Constitution. [Online]. WHO: Geneva; 2026 [Accessed 13 February 2026]. Available from: <https://www.who.int/about/governance/constitution>
16. United Nations (UN). The Sustainable Development Goals Report 2025. [Online]. New York: United Nations; 2025 [Accessed 25 May 2026]. Available from: <https://unstats.un.org/sdgs/report/2025/The-Sustainable-Development-Goals-Report-2025.pdf>
17. World Health Organisation (WHO). WHO Global Health and Peace Initiative (GHPI). [Online]. WHO: Geneva; 2025 [Accessed 13 December 2025]. Available from: <https://www.who.int/initiatives/who-health-and-peace-initiative>
18. Tahzib F. Peace: more than an end to war. *The Lancet*. 2026 Feb;407(10531):851. Available from: [doi:10.1016/S0140-6736\(26\)00213-8](https://doi.org/10.1016/S0140-6736(26)00213-8)
19. Rockström J, Steffen W, Noone K, Persson A, Chapin FS, Lambin E et al. Planetary boundaries: Exploring the safe operating space for humanity. *Ecology and Society* [online]. 2009;14(2):32. [Accessed 17 March 2026]. Available from: <https://www.stockholmresilience.org/download/18.8615c78125078c8d3380002197/1459560331662/ES-2009-3180.pdf>
20. Guterres A. Secretary-General's press encounter at COP28. United Nations. 2023.
21. Vogler A. Barking up the tree wrongly? How national security strategies frame climate and other environmental change as security issues. *Political Geography*. 2023 Aug;105:102893. Available from: <https://doi.org/10.1016/j.polgeo.2023.102893>
22. Romanello M, Walawender M, Hsu SC, Moskeland A, Palmeiro-Silva Y, Scamman D, et al. The 2025 report of the Lancet Countdown on health and climate change: climate change action offers a lifeline. *The Lancet*. 2025 Dec;406(10521):2804–57. Available from: [https://doi.org/10.1016/S0140-6736\(25\)01919-1](https://doi.org/10.1016/S0140-6736(25)01919-1)
23. Levy BS. Increasing Risks for Armed Conflict: Climate Change, Food and Water Insecurity, and Forced Displacement. *Int J Health Serv*. 2019 Oct;49(4):682–91. Available from: <https://doi.org/10.1177/0020731419845249>
24. Koubi V. Climate Change and Conflict. *Annu Rev Polit Sci*. 2019 May 11;22(1):343–60. Available from: <https://doi.org/10.1146/annurev-polisci-050317-070830>
25. Abbasi K. Climate change and conflict: more than a fashionable association with health. *J R Soc Med*. 2015 Oct;108(10):381–381. Available from: <https://doi.org/10.1177/0141076815610024>
26. Lasater ME, Prager G, Choi YA, Groteclaes T, Rao D, Kamps SP, et al. Understanding relationships among climate change, conflict, migration/displacement and health in humanitarian settings: a scoping review. *Confl Health*. 2025 Oct 14;19(1):73. Available from: <https://doi.org/10.1186/s13031-025-00707-8>
27. Jakobsdóttir K, Haines A. Pan-European Commission on Climate and Health: recommendations for accelerating climate action for health. *The Lancet*. 2026 May;S0140673626008081. Available from: [doi:10.1016/S0140-6736\(26\)00808-1](https://doi.org/10.1016/S0140-6736(26)00808-1)
28. Sakschewski B, Caesar L, Andersen LS, Bechthold M, Bergfeld L, Beusen A. Planetary health check 2025: A scientific assessment of the state of the planet. [online]. Potsdam Institute for Climate Impact Research (PIK); 2025 Sep [Accessed 17 March 2026].

- Available from: https://publications.pik-potsdam.de/rest/items/item_32589_5/component/file_33151/content808-1
29. Goto R, Guerrero APS, Speranza M, Fung D, Paul C, Skokauskas N. War is a public health emergency. *The Lancet*. 2022 Apr;399(10332):1302. Available from: [doi:10.1016/S0140-6736\(22\)00479-2](https://doi.org/10.1016/S0140-6736(22)00479-2)
30. Checchi F. Public health in crisis-affected populations: a practical guide for decision-makers. London: Humanitarian Practice Network; 2007. Available from: <https://scienceportal.msf.org/assets/4587>
31. Spiegel P, Martinez E, Abraham O, Undie CC, Altare C, Schmid B, et al. Johns Hopkins Center for Humanitarian Health—Lancet Commission on health, conflict, and forced displacement: health in a world of crises and impunity. *The Lancet*. 2026 May;S0140673626005647. [doi:10.1016/S0140-6736\(26\)00564-7](https://doi.org/10.1016/S0140-6736(26)00564-7)
32. International Committee of the Red Cross (ICRC). What is international humanitarian law [Online]. ICRC: Geneva; 2004 [Accessed 5 March 2026]. Available from: https://www.icrc.org/sites/default/files/external/doc/en/assets/files/other/what_is_ihl.pdf
33. International Committee of the Red Cross (ICRC). How is the Term “Armed Conflict” Defined in International Humanitarian Law? [Online]. ICRC: Geneva; 2008 [Accessed 14 January 2026]. Available from: <https://www.icrc.org/sites/default/files/external/doc/en/assets/files/other/opinion-paper-armed-conflict.pdf>
34. Safeguarding Health in Conflict Coalition (SHCC). Epidemic of violence: Violence against healthcare in conflict 2024 [Online]. SHCC: Baltimore; 2024 [Accessed 5 March 2026]. Available from: <https://insecurityinsight.org/wp-content/uploads/2025/04/2024-SHCC-Annual-Report.pdf>
35. Shkodina AD, Chopra H, Singh I, Ahmad S, Boiko DI. Healthcare system amidst the war in Ukraine. *Annals of Medicine & Surgery*. 2022 Aug;80:104271. Available from: <https://doi.org/10.1016/j.amsu.2022.104271>
36. Marou V, Vardavas CI, Aslanoglou K, Nikitara K, Plyta Z, Leonardi-Bee J, et al. The impact of conflict on infectious disease: a systematic literature review. *Confl Health*. 2024 Apr 8;18(1):27. Available from: [doi:10.1186/s13031-023-00568-z](https://doi.org/10.1186/s13031-023-00568-z)
37. Gayer M, Legros D, Formenty P, Connolly MA. Conflict and Emerging Infectious Diseases. *Emerg Infect Dis*. 2007 Nov;13(11):1625–31. Available from: [doi:10.3201/eid1311.061093](https://doi.org/10.3201/eid1311.061093)
38. Marou V, Vardavas CI, Aslanoglou K, Nikitara K, Plyta Z, Leonardi-Bee J, et al. The impact of conflict on infectious disease: a systematic literature review. *Confl Health*. 2024 Apr 8;18(1):27. Available from: [doi:10.1186/s13031-023-00568-z](https://doi.org/10.1186/s13031-023-00568-z)
39. World Health Organisation (WHO). Ebola disease caused by Bundibugyo virus, Democratic Republic of the Congo & Uganda. [Online]. WHO: Geneva; 2026 [Accessed 21 June 2026]. Available from: <https://www.who.int/emergencies/disease-outbreak-news/item/2026-DON608>
40. World Health Organisation (WHO). Health Security. [Online]. WHO: Geneva; 2026 [Accessed 27 May 2026]. Available from: https://www.who.int/health-topics/health-security#tab=tab_1
41. Krampe F, Kreutz J, Ide T. “Armed conflict causes long-lasting environmental harms”. *Environment and Security*. 2025 Mar 11;27538796251323739. Available from: <https://doi.org/10.1177/27538796251323739>

42. Meaza H, Ghebreyohannes T, Nyssen J, Tesfamariam Z, Demissie B, Poesen J, et al. Managing the environmental impacts of war: What can be learned from conflict-vulnerable communities? *Science of The Total Environment*. 2024 June;927:171974. Available from: <https://doi.org/10.1016/j.scitotenv.2024.171974>
43. Certini G, Scalenghe R, Woods WI. The impact of warfare on the soil environment. *Earth-Science Reviews*. 2013 Dec;127:1–15. Available from: <https://doi.org/10.1016/j.earscirev.2013.08.009>
44. International Committee of the Red Cross (ICRC). When rain turns to dust: understanding and responding to the combined impact of armed conflicts and the climate and environment crisis on people's lives. [Online]. Geneva: ICRC; 2020 [Accessed 2 March 2026]. Available from: https://www.icrc.org/sites/default/files/topic/file_plus_list/rain_turns_to_dust_climate_change_conflict.pdf
45. United Nations Office for Disaster Risk Reduction (UNDRR), International Science Council (ISC). GH0402 Soil Degradation [Online]. UNDRR: Geneva; 2025 [Accessed 9 March 2026]. Available from: <https://www.undrr.org/understanding-disaster-risk/terminology/hips/gh0402#:~:text=In%20addition%2C%20healthy%20soils%20play,resilience%20to%20extreme%20weather%20events>.
46. Van Meirvenne M, Meklit T, Verstraete S, De Boever M, Tack F. Could shelling in the First World War have increased copper concentrations in the soil around Ypres? *European J Soil Science*. 2008 Apr;59(2):372–9. Available from: <https://doi.org/10.1111/j.1365-2389.2007.01014.x>
47. Truong KN, Dinh KV. Agent Orange: Haft-Century Effects On The Vietnamese Wildlife Have Been Ignored. *Environ Sci Technol*. 2021 Nov 16;55(22):15007–9. Available from: [doi:10.1021/acs.est.1c06613](https://doi.org/10.1021/acs.est.1c06613)
48. Le DT, Pham TM, Polachek S. The long-term health impact of Agent Orange: Evidence from the Vietnam War. *World Development*. 2022 Jul;155:105813. Available from: <https://doi.org/10.1016/j.worlddev.2022.105813>
49. Frumkin H. Agent Orange and Cancer: An Overview for Clinicians. *CA: A Cancer Journal for Clinicians*. 2003 Jul 1;53(4):245–55. Available from: <https://doi.org/10.3322/canjclin.53.4.245>
50. Food and Agriculture Organisation (FAO), (ITPS) (Status of the world's soil resources (SWSR)-Main report. FAO/ITPS: Rome; 2015. ISBN:978-92-5-109004-6.
51. Ruff TA. The humanitarian impact and implications of nuclear test explosions in the Pacific region. *Int rev Red Cross*. 2015 Sep;97(899):775–813. Available from: [doi:10.1017/S1816383116000163](https://doi.org/10.1017/S1816383116000163)
52. Szabo M. Pacific Nuclear Testing: A history of nuclear testing in the Pacific and the successful campaign to stop it. [Online]. Greenpeace: Aotearoa; 2025 [Accessed 19 June 2026]. Available from: <https://www.greenpeace.org/aotearoa/a-history-of-nuclear-testing-in-the-pacific-and-the-successful-campaign-to-stop-it/>
53. Neimark B, Larbi R, Larbi R, Rubaii K, Bigger P, Rogaly K, Depledge D, et al. Confronting Military Greenhouse Gas Emissions, Interactive Policy Brief [Online]. London: Queen Mary University London; 2024 [Accessed 16 February 2026]. Available from: [https://www.qmul.ac.uk/sbm/media/sbm/documents/Confronting-military-greenhouse-gas-emissions,-Neimark-et-el,-Interactive-policy-brief-\(2024\)-\[Digital\].pdf](https://www.qmul.ac.uk/sbm/media/sbm/documents/Confronting-military-greenhouse-gas-emissions,-Neimark-et-el,-Interactive-policy-brief-(2024)-[Digital].pdf)

54. Hicks C, Nakkasunchi S, Neild A, Heidrich O. Carbon accounting: review and case study on the development of a carbon baseline for military infrastructure. *Renewable and Sustainable Energy Reviews*. 2026 Feb;227:116511. Available from: <https://doi.org/10.1016/j.rser.2025.116511>
55. Gayle D. 5m tonnes of CO2 emitted in just 14 days of US war on Iran, analysis finds. [online]. *The Guardian*: London; 2026 [Accessed 26 March 2026]. Available from: <https://www.theguardian.com/world/2026/mar/21/middle-east-iran-conflict-environment-climate>
56. Dong W, Ran Q, Liu F, Deng R, Yang J, Wang K, et al. Rising military spending jeopardizes climate targets. *Nat Commun*. 2025 May 22;16(1):4766. Available from: <https://doi.org/10.1038/s41467-025-59877-x>
57. Goodman A, Baudu P. Climate change as a “threat multiplier”: History, uses and future of the concept. [Online]. 2023 [Accessed 1 April 2026]. Available from: <https://councilonstrategicrisks.org/wp-content/uploads/2023/01/38-CCThreatMultiplier.pdf>
58. Torales J, Ventriglio A, Castaldelli-Maia JM, Liebrezn M, Barrios I, O'Higgins M. Climate change as a threat multiplier: conflict pathways, inequities, and mental health impacts. *International Review of Psychiatry*. 2026 Jan 28;1–13. Available from: <https://doi.org/10.1080/09540261.2026.2620547>
59. Iqbal B, Alabbosh KF, Jalal A, Suboktagin S, Elboughdiri N. Sustainable food systems transformation in the face of climate change: strategies, challenges, and policy implications. *Food Sci Biotechnol*. 2025 Mar;34(4):871–83. Available from: <https://doi.org/10.1007/s10068-024-01712-y>
60. Awoke MD, Brück T. Climate, conflict, and food security: a systematic review of household-level evidence (2020–2025). *J Health Popul Nutr*. 2026 Feb 16;45(1):70. Available from: <https://doi.org/10.1186/s41043-026-01267-0>
61. United Nations Development Programme (UNDP). Programming for Climate, Peace and Security: Thematic Review and Guidance Note. [online]. UNDP: New York; 2026 [Accessed 2 June 2026]. Available from: https://climatepromise.undp.org/sites/default/files/research_report_document/UNDP_CPS_Thematic_Review_web.pdf
62. United Nations Mission in South Sudan (UNMISS). Climate, Peace and Security in South Sudan. [online]. UNMISS: South Sudan; 2026 [Accessed 1 June 2026]. Available from: <https://www.un.org/climatesecuritymechanism/en/climate-peace-and-security-south-sudan#:~:text=South%20Sudan%20is%20among%20the,increasing%20competition%20for%20limited%20resources.>
63. Food and Agriculture Organisation. Country programming framework for Sudan. Plan of action (2015-2019): Resilient livelihoods for sustainable agriculture, food security and nutrition. [online]. FAO: Rome; 2015 [Accessed 10 April 2026]. Available from: <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC201507/>
64. International Rescue Committee. South Sudan: Hunger, conflict and climate crisis. [Online]. International Rescue Committee: New York; 2023 [Accessed 11 April 2026]. Available from: <https://www.rescue.org/article/south-sudan-hunger-conflict-and-climate-crisis#:~:text=The%20International%20Rescue%20Committee's%20Emergency,most%20at%20risk%20in%202023.&text=Although%20the%20civil%20war%20in,consequences%20for%20already%20vulnerable%20populations.>

65. Lange MA. Impacts of Climate Change on the Eastern Mediterranean and the Middle East and North Africa Region and the Water–Energy Nexus. *Atmosphere*. 2019 Aug 9;10(8):455. Available from: [doi:10.3390/atmos10080455](https://doi.org/10.3390/atmos10080455)
66. Mfarrej MFB. Exploring the nexus between climate change, water scarcity, and security dynamics in the Middle East and North Africa. *Next Research*. 2025 Mar;2(1):100168. Available from: <https://doi.org/10.1016/j.nexres.2025.100168>
67. Hamed TA, Bressler L. Energy security in Israel and Jordan: The role of renewable energy sources. *Renewable Energy*. 2019 May;135:378–89. Available from: <https://doi.org/10.1016/j.renene.2018.12.036>
68. Ang TZ, Salem M, Kamarol M, Das HS, Nazari MA, Prabakaran N. A comprehensive study of renewable energy sources: Classifications, challenges and suggestions. *Energy Strategy Reviews*. 2022 Sep;43:100939. Available from: <https://doi.org/10.1016/j.esr.2022.100939>
69. United Nations High Commissioner for Refugees (UNHCR). Climate change and displacement. [online]. UNHCR: Geneva; 2026 [Accessed 15 May 2026]. Available from: <https://www.unhcr.org/uk/what-we-do/build-better-futures/climate-change-and-displacement>
70. Ivanova A, Singh D, Rai P, Richards C, Vasconcelos H, Goldsby M. Climate hazards and human migration: literature review. *Environ Res: Climate*. 2024 Dec 1;3(4):042002. Available from: [doi:10.1088/2752-5295/ad6fc4](https://doi.org/10.1088/2752-5295/ad6fc4)
71. Nguyen TT, Grote U, Neubacher F, Rahut DB, Do MH, Paudel GP. Security risks from climate change and environmental degradation: implications for sustainable land use transformation in the Global South. *Current Opinion in Environmental Sustainability*. 2023 Aug;63:101322. Available from: <https://doi.org/10.1016/j.cosust.2023.101322>
72. United Nations High Commissioner for Refugees (UNHCR). UNHCR report reveals climate change is a growing threat to people already fleeing war. [Online]. 2024 [Accessed 26 Mar 2026]. Available from: <https://www.unhcr.org/us/news/press-releases/unhcr-report-reveals-climate-change-growing-threat-people-already-fleeing-war>
73. United Nations High Commissioner for Refugees (UNHCR). No escape: On the frontlines of climate change, conflict and forced displacement. [online]. UNHCR: Geneva; 2024 [Accessed 2 June 2026]. Available from: <https://www.unhcr.org/media/no-escape-frontlines-climate-change-conflict-and-forced-displacement>
74. Bellizzi S, Popescu C, Panu Napodano CM, Fiamma M, Cegolon L. Global health, climate change and migration: The need for recognition of “climate refugees”. *J Glob Health*. 2023 Mar 24;13:03011. Available from: [doi:10.7189/jogh.13.03011](https://doi.org/10.7189/jogh.13.03011)
75. Eboreime E, Anjorin O, Obi-Jeff C, Ojo TM, Hertelendy A. From drought to displacement: Assessing the impacts of climate change on conflict and forced migration in West Africa’s Sahel Region. *The Journal of Climate Change and Health*. 2025 May;23:100448. Available from: <https://doi.org/10.1016/j.joclim.2025.100448>
76. United Nations High Commissioner for Refugees (UNHCR). Global trends. Forced displacement 2021. [Online]. UNHCR: Geneva; 2022 [Accessed 26 January 2026]. Available from: <https://www.unhcr.org/media/global-trends-report-2021>
77. United Nations High Commissioner for Refugees (UNHCR). Sahel emergency. [online]. UNHCR: Geneva; 2026 [Accessed 10 April 2026]. Available from: <https://www.unhcr.org/emergencies/sahel-emergency>

78. Tomalka J, Birner J, Mar Dieye A, Gleixner S, Harper A, Hauf Y, et al. Representative Concentration Pathways: Climate Risk Profile For The Sahel Region. [Online]. Potsdam Institute for Climate Impact Research (PIK) / United Nations High Commissioner for Refugees (UNHCR); 2021 [Accessed 10 April 2026]. Available from: <https://www.unhcr.org/sites/default/files/legacy-pdf/61a49df44.pdf>
79. Fitzpatrick RGJ, Parker DJ, Marsham JH, Rowell DP, Jackson LS, Finney D, et al. How a typical West African day in the future-climate compares with current-climate conditions in a convection-permitting and parameterised convection climate model. *Climatic Change*. 2020 Nov;163(1):267–96. Available from: <https://doi.org/10.1007/s10584-020-02881-5>
80. Laila GA, Ford JD, Ivanova D, Paavola J. Revisiting the Climate-Migration-Conflict Nexus: Community-Level evidence and contextual pathways in coastal Bangladesh. *Climate Risk Management*. 2026 Jun;52:100813. Available from: <https://doi.org/10.1016/j.crm.2026.100813>
81. Caso N, Hilhorst D, Mena R, Papyrakis E. Does disaster contribute to armed conflict? A quantitative analysis of disaster–conflict co-occurrence between 1990 and 2017. *IJDI*. 2024 Mar 21;23(1):1–23. Available from: <https://doi.org/10.1108/IJDI-01-2023-0015>
82. Bergholt D, Lujala P. Climate-related natural disasters, economic growth, and armed civil conflict. *Journal of Peace Research*. 2012 Jan;49(1):147–62. Available from: <https://doi.org/10.1177/0022343311426167>
83. Ide T, Brzoska M, Donges JF, Schleussner CF. Multi-method evidence for when and how climate-related disasters contribute to armed conflict risk. *Global Environmental Change*. 2020 May;62:102063. Available from: <https://doi.org/10.1016/j.gloenvcha.2020.102063>
84. Selby J, Dahi OS, Fröhlich C, Hulme M. Climate change and the Syrian civil war revisited. *Political Geography*. 2017 Sep;60:232–44. Available from: <https://doi.org/10.1016/j.polgeo.2017.05.007>
85. Gleick PH. Water, Drought, Climate Change, and Conflict in Syria. *Weather, Climate, and Society*. 2014 July 1;6(3):331–40. Available from: <https://doi.org/10.1175/WCAS-D-13-00059.1>
86. Ide T. Climate War in the Middle East? Drought, the Syrian Civil War and the State of Climate-Conflict Research. *Curr Clim Change Rep*. 2018 Dec;4(4):347–54. Available from: <https://doi.org/10.1007/s40641-018-0115-0>
87. Sowers JL, Weinthal E, Zawahri N. Targeting environmental infrastructures, international law, and civilians in the new Middle Eastern wars. *Security Dialogue*. 2017 Oct 1;48(5):410–30. Available from: <https://doi.org/10.1177/0967010617716615>
88. Hassoun A. War-Torn Sustainability: Gaza's Environmental, Social, and Economic Challenges for Sustainable Futures [Online]. SSRN; 2024 [cited 19 Jan 2026]. Available from: <http://dx.doi.org/10.2139/ssrn.5018028>
89. Holail S, Saleh T, Xiao X, Xiao J, Xia GS, Shao Z, et al. Time-series satellite remote sensing reveals gradually increasing war damage in the Gaza Strip. *National Science Review*. 2024 Aug 13;11(9):nwae304. Available from: <https://doi.org/10.1093/nsr/nwae304>
90. Shaheen A, Dajani R, Zinszer K, Ashour Y, Abuzerr S. The war on the Gaza Strip and its consequences on global warming. *Front Hum Dyn*. 2024 Nov 18;6:1463902. Available from: <https://doi.org/10.3389/fhumd.2024.1463902>

91. Fieldhouse R, Basu M. 'Black rain' in Tehran: what are the health effects? [online]. Nature: London; 2026 [Accessed 1 April 2026]. Available from: <https://www.nature.com/articles/d41586-026-00800-9>
92. Market J, Book K, Imsirovic A, Emerson S, Alkadiri R, Palti-Guzman, L, Cahill B. What Does the Iran War Mean for Global Energy Markets? [online]. Center for Strategic and International Studies (CSIS): Washington; 2026 [Accessed 1 April 2026]. Available from: <https://www.csis.org/analysis/what-does-iran-war-mean-global-energy-markets>
93. Muggah R. The global price tag of war in the Middle East. [online]. World Economic Forum; 2026 [Accessed 14 April 2026]. Available from: <https://www.weforum.org/stories/2026/03/the-global-price-tag-of-war-in-the-middle-east/>
94. International Energy Agency (IEA). The Middle East and Global Energy Markets. [online]. IEA: Paris; 2026 [Accessed 1 April 2026]. Available from: <https://www.iea.org/topics/the-middle-east-and-global-energy-markets>
95. Beato OH. Iran war pushes Philippines fishing communities to the brink. [online]. The New Humanitarian: Geneva; 2026 [Accessed 14 April 2026]. Available from: <https://www.thenewhumanitarian.org/photo-feature/2026/04/06/iran-war-impact-philippines-fishing-communities#:~:text=The%20Philippines%20imports%2098%25%20of,day%20workweek%20for%20government%20employees.>
96. Noor D. What does the Iran war mean for clean energy transition? [online]. The Guardian: London; 2026 [Accessed 14 April 2026]. Available from: <https://www.theguardian.com/environment/2026/mar/26/iran-war-clean-energy-transition>
97. Global Alliance for the Future of Food. Toward fossil fuel-free food: Why collaboration between food & energy systems players is key. [Online]. n.p.: Global Alliance for the Future of Food; 2023 [Accessed 22 June 2026]. Available from: https://futureoffood.org/wp-content/uploads/2023/11/ga_food-energy-nexus_discussion-paper.pdf
98. United Nations World Food Programme (WFP). WFP projects food insecurity could reach record levels as a result of Middle East escalation. [Online]. WFP: Rome; 2026 [Accessed 22 June 2026]. Available from: <https://www.wfp.org/news/wfp-projects-food-insecurity-could-reach-record-levels-result-middle-east-escalation>
99. Meredith S. From war to weather: A 'super El Niño' event poses fresh risks to global food costs. [Online]. CNBC; 9 April 2026 [Accessed 22 Jun2 2026]. Available from: <https://www.cnbc.com/2026/04/09/el-nino-food-risks-iran-war-fertilizer-weather.html>
100. France 24. Earth hit record heat levels in 2025 as UN says warming will last thousands of years. [Online]. 2026 Mar 23 [Accessed 11 July 2026]. Available from: <https://www.france24.com/en/environment/20260323-earth-heat-record-2025-un-warns-warming-thousands-years>
101. Rashid R. How South Korea plans to use the Iran crisis to spur a renewables revolution. [online]. The Guardian: Seoul; 2026 April [Accessed 18 April 2026]. Available from: <https://www.theguardian.com/world/2026/apr/16/south-korea-solar-power-renewables-revolution>
102. International Institute for Sustainable Development (IISD). What Happened in Santa Marta? [online]. IISD: Winnipeg, Manitoba; 2026 [Accessed 15 May 2026]. Available from: <https://www.iisd.org/articles/insight/what-happened-santa-marta>

103. Brux CM, Lengle EJ, Dasgupta J, Wanyenze RK, Buss PM, Engebretsen E, et al. Governance for health in a turbulent world: introducing a new Lancet Commission. *The Lancet*. 2026 Feb;407(10531):834–6. Available from: [doi:10.1016/S0140-6736\(26\)00145-5](https://doi.org/10.1016/S0140-6736(26)00145-5)
104. United Nations Office for Disarmament Affairs. The Security We Need: Report of the Secretary-General's High-level Advisory Board on Effective Multilateralism. [Online]. New York: United Nations; 2025 [Accessed 27 May 2026]. Available from: https://front.un-arm.org/Milex-SDG-Study/SG_Report_TheSecurityWeNeed.pdf
105. Sokunbi TO, Umar AB, Eyo UB. Implications of U.S. withdrawal from the World Health Organization on health financing in Africa. *Health Policy OPEN*. 2025 Nov;9:100142. Available from: <https://doi.org/10.1016/j.hpopen.2025.100142>
106. The White House. Fact sheet: President Donald J. Trump withdraws the United States from international organizations that are contrary to the interests of the United States. [Online]. Washington, DC: The White House; 2026 [Accessed 27 April 2026]. Available from: <https://www.whitehouse.gov/fact-sheets/2026/01/fact-sheet-president-donald-j-trump-withdraws-the-united-states-from-international-organizations-that-are-contrary-to-the-interests-of-the-united-states/>
107. Vesco P, Baliki G, Brück T, Döring S, Eriksson A, Fjelde H, et al. The impacts of armed conflict on human development: A review of the literature. *World Development*. 2025 Mar;187:106806. Available from: <https://doi.org/10.1016/j.worlddev.2024.106806>
108. Buhaug H, Gacheche K. Armed conflict and climate change: how these two threats play out in Africa [Online]. 2022 Nov 7 [Accessed 4 April 2026]. Available from: <https://theconversation.com/armed-conflict-and-climate-change-how-these-two-threats-play-out-in-africa-193865>
109. United Nations Development Programme. Shared crisis, different impact. [online]. UNDP: New York; 2025 [Accessed 5 April 2026]. Available from: <https://www.undp.org/yemen/news/shared-crisis-different-impact>
110. Human Rights Watch. “Death is More Merciful Than This Life” Houthi and Yemeni Government Violations of the Right to Water in Taizz. [online]. Human Rights Watch: New York; 2023 [Accessed 9 July 2007]. Available from: <https://www.hrw.org/report/2023/12/11/death-more-merciful-life/houthi-and-yemeni-government-violations-right-water>
111. Ahmed I. Impacts of war on the environment: an overview of Yemen. *International Journal of Humanities & Social Science Studies (IJHSSS)*. 2023 May;9(3):216-229. Available from: <https://doi.org/10.29032/ijhsss.v9.i3.2023>
112. International Federation of Red Cross Red Crescent Climate Centre (IFRC). IFRC: Scope, scale and impact of Yemen floods disaster is huge. [online]. IFRC: The Hague; 2026 [Accessed 3 June 2026]. Available from: <https://www.climatecentre.org/17006/ifrc-scope-scale-and-impact-of-yemen-floods-disaster-is-huge/>
113. Yemen Food and Climate Alliance (YFCA). Climate Change Impacts on Yemen and Adaptation Strategies. [Online]. YFCA; 2023 Sep 23 [Accessed 3 June 2026]. Available from: <https://heathealth.info/wp-content/uploads/Climate-Change-Impacts-on-Yemen-and-Adaptation-Strategies-final-version.pdf>
114. World Health Organisation. Yemen health crisis at a glance. [online]. WHO: Geneva; 2023 [Accessed 5 April 2026]. Available from: <https://www.who.int/multi-media/details/yemen-health-crisis-at-a-glance>

115. Poornima B, Ramesh R. Yemen's Survival Quandary: The Compounding Effects of Conflict and Climate Obstruction. *Journal of Peacebuilding & Development*. 2023 Dec;18(3):264–79. Available from: [doi:10.1177/15423166231197807](https://doi.org/10.1177/15423166231197807)
116. Buhaug H, Von Uexkull N. Vicious Circles: Violence, Vulnerability, and Climate Change. *Annu Rev Environ Resour*. 2021 Oct 18;46(1):545–68. Available from: <https://doi.org/10.1146/annurev-environ-012220-014708>
117. Caso N, Hilhorst D, Mena R. The contribution of armed conflict to vulnerability to disaster: Empirical evidence from 1989 to 2018. *International Journal of Disaster Risk Reduction*. 2023 Sep;95:103881. Available from: <https://doi.org/10.1016/j.ijdr.2023.103881>
118. Hänze N. When conflict becomes calamity: Understanding the role of armed conflict dynamics in natural disasters. *Journal of Peace Research*. 2025 Jul 1;62(4):1030–45. Available from: <https://doi.org/10.1177/00223433241265028>
119. World Health Organisation (WHO). Refugee and migrant health. [online]. WHO: Geneva; 2026 [Accessed 11 April 2026]. Available from: <https://www.who.int/news-room/fact-sheets/detail/refugee-and-migrant-health>
120. World Health Organisation (WHO). *World Report on the Health of Refugees and Migrants*. 1st ed. Geneva: WHO; 2022.
121. Abdalrhim S, Ahmed G, Mudawi M, Mohamed AAO, Mohamed O, Dawood I, et al. Drought and armed conflict as drivers of overcrowding in Sudan's refugee camps. *International Health*. 2026 Jan 31;ihag002. Available from: <https://doi.org/10.1093/inthealth/ihag002>
122. UN Women and UN Department of Economic and Social Affairs (DESA). *Progress on the Sustainable Development Goals: The Gender Snapshot 2024*. [online]. UN Women and DESA: New York; 2024 [Accessed 18 April 2026]. Available from: <https://www.unwomen.org/sites/default/files/2024-09/progress-on-the-sustainable-development-goals-the-gender-snapshot-2024-en.pdf>
123. Peace Research Institute Oslo (PRIO). *Record number of women living in conflict in 2024*. [Online]. Oslo: PRIO; 2025 [Accessed 21 June 2026]. Available from: <https://www.prio.org/news/3635>
124. Jaggernath J. Women, climate change and environmentally-induced conflicts in Africa. *Agenda*. 2014 July 3;28(3):90–101. Available from: <https://doi.org/10.1080/10130950.2014.939837>
125. Bendavid E, Boerma T, Akseer N, Langer A, Malembaka EB, Okiro EA, et al. The effects of armed conflict on the health of women and children. *The Lancet*. 2021 Feb;397(10273):522–32. Available from: [https://doi.org/10.1016/S0140-6736\(21\)00131-8](https://doi.org/10.1016/S0140-6736(21)00131-8)
126. International Organization for Migration (IOM). *Ethiopia Crisis Response Plan 2026*. [Online]. IOM: Geneva; 2026 [Accessed 24 April 2026]. Available from: <https://crisisresponse.iom.int/response/ethiopia-crisis-response-plan-2026>
127. UN Women Africa. *In Ethiopia, a rapidly changing humanitarian crisis demonstrates the need for a flexible response*. [online]. UN Women: Addis Ababa; 2023 [Accessed 24 April 2026]. Available from: <https://africa.unwomen.org/en/stories/news/2023/10/in-ethiopia-a-rapidly-changing-humanitarian-crisis-demonstrates-the-need-for-a-flexible-response>
128. Shrivastav D, Dabla V. The disproportionate effects of climate change on women and youth: a systematic review. *J Public Health [Online]*. 2025 Apr 1 [Accessed 2026 Jan 30]; Available from: <https://link.springer.com/10.1007/s10389-025-02453-w>

129. Grey K, Gonzales GB, Abera M, Lelijveld N, Thompson D, Berhane M, et al. Severe malnutrition or famine exposure in childhood and cardiometabolic non-communicable disease later in life: a systematic review. *BMJ Glob Health*. 2021 Mar;6(3):e003161. Available from: <https://doi.org/10.1136/bmjgh-2020-003161>
130. Ogah OS, Oguntade AS, Chukwuonye II, Onyeonoro UU, Madukwe OO, Asinobi A, et al. Childhood and Infant exposure to famine in the Biafran war is associated with hypertension in later life: the Abia NCDS study. *J Hum Hypertens*. 2022 Dec 6;37(10):936–43. Available from: <https://doi.org/10.1038/s41371-022-00782-x>
131. Kokorelias KM, Grosse A, Kazberouk A, Sinha SK. Exacerbated inequalities: A scoping review of the experiences of older persons during conflict situations. *J American Geriatrics Society*. 2023 Oct;71(10):3287–96. Available from: <https://doi.org/10.1111/jgs.18486>
132. Madani Hosseini M, Zargoush M, Ghazalbash S. Climate crisis risks to elderly health: strategies for effective promotion and response. *Health Promotion International*. 2024 Apr 1;39(2):daae031. Available from: <https://doi.org/10.1093/heapro/daae031>
133. Marzouk S, Nasari A, Spiegel PB. Syria's health crisis transition: challenges and opportunities. *The Lancet*. 2025 Mar;405(10483):976. Available from: [https://doi.org/10.1016/S0140-6736\(25\)00265-X](https://doi.org/10.1016/S0140-6736(25)00265-X)
134. Strong J, Varady C, Chahda N, Doocy S, Burnham G. Health status and health needs of older refugees from Syria in Lebanon. *Confl Health*. 2015 Dec;9(1):12. Available from: <https://doi.org/10.1186/s13031-014-0029-y>
135. Tolulope OY, Bamidele J, Eleke UP, Joel OJ, Joel AF, Sennuga SO. Adapting to environmental changes and climate impacts in rural communities: A comprehensive review. *Global Journal of Earth and Environmental Science*. 2025 February; 10(1):1-7. Available from: <https://doi.org/10.31248/GJEES2024.169>
136. Norwegian Red Cross. Overlapping vulnerabilities. The impacts of climate change on humanitarian needs. [Online]. Norwegian Red Cross: Oslo; 2019 [Accessed 21 January 2026]. Available from: https://www.rodekors.no/globalassets/_english-pages/general-reports/norwegian-redcross_report_overlapping-vulnerabilities.pdf
137. Ram AL, Shahzar E. Land, loss and liberation: Indigenous struggles amid the climate crisis. [Online]. Geneva: World Economic Forum; 2024 [Accessed 30 April 2026]. Available from: <https://www.weforum.org/stories/2024/02/indigenous-challenges-displacement-climate-change/>
138. Samuel J, Batzin B, Medina R, Caal E, Slowing K, Sabbatasso E, et al. Indigenous-led struggles for health justice in the context of the climate emergency: insights from Guatemala. *BMJ Glob Health*. 2024 Nov;9(11):e015519. Available from: <https://doi.org/10.1136/bmjgh-2024-015519>
139. Sabbatasso E, Samuel J, Batzin B, Medina R, Slowing K, Flores W. Exploring the interconnections between health, climate crisis, food insecurity and institutional neglect in Alta Verapaz region, Guatemala. *The Journal of Climate Change and Health*. 2025 Nov;26:100603. Available from: <https://doi.org/10.1016/j.joclim.2025.100603>
140. Conflict and Environment Observatory. How does war contribute to climate change. 14 June 2021 Conflict and Environment Observatory blog: We need to do more to understand the climate costs of war if we're to identify pathways towards emissions reductions and increased resilience during recovery [online]. 2021. [Accessed 2

- March 2026]. Available from: <https://ceobs.org/how-does-war-contribute-to-climate-change/#:~:text=Introduction,relationship%20between%20conflicts%20and%20emissions>.
141. United Nations Environment Programme (UNDP). Here's how buildings contribute to climate change – and what can be done about it. [Online]. UNDP: Geneva; 2026 [Accessed 2 March 2026]. Available from: <https://www.unep.org/news-and-stories/story/heres-how-buildings-contribute-climate-change-and-what-can-be-done-about-it>
142. Kobayakawa T. Estimating the carbon footprint of post-war reconstruction: toward a 'greener' recovery of Ukraine. *Environ Res: Infrastruct Sustain*. 2025 Mar 31; 5(1): 015015. Available from: <https://doi.org/10.1088/2634-4505/adb2bf>
143. Abdelnour S, Roy N. Processing debris from destroyed and damaged buildings in Gaza: carbon emissions, time frames, and implications for rebuilding. *Environ Res: Infrastruct Sustain*. 2025 Sep 30;5(3):035002. Available from: <https://doi.org/10.1088/2634-4505/adeadc>
144. World Economic Forum. Global Risks Report 2026. [Online]. World Economic Forum: Geneva; 2026 [Accessed 15 May 2026]. Available from: https://reports.weforum.org/docs/WEF_Global_Risks_Report_2026.pdf
145. International Atomic Energy Agency. Artificial intelligence, misinformation and emergency communication. [Online]. Vienna: IAEA Bulletin; 2025 [Accessed 22 June 2026]. Available from: <https://www.iaea.org/bulletin/artificial-intelligence-misinformation-and-emergency-communication>
146. Jaff D. The surge of spreading harmful information through digital technologies: a distressing reality in complex humanitarian emergencies. *The Lancet Global Health*. 2023 Jun;11(6):e821–2. Available from: [https://doi.org/10.1016/S2214-109X\(23\)00207-3](https://doi.org/10.1016/S2214-109X(23)00207-3)
147. Goussac N, Boulanin V. Responsible Procurement of Military Artificial Intelligence. [Online]. Stockholm International Peace Research Institute; 2026 Feb [Accessed 7th July 2026]. Available from: <https://www.sipri.org/publications/2026/other-publications/responsible-procurement-military-artificial-intelligence> doi:10.55163/YOLG1827
148. He C, Yue F, Li L, Tang Y, Wu Q, Chen W. AI carbon footprint: The non-negligible hidden emission source. *Eco-Environment & Health*. 2025 Dec;4(4):100197. Available from: <https://doi.org/10.1016/j.eehl.2025.100197>
149. United Nations (UN). Our common agenda: report of the Secretary-General. New York: UN; 2021.
150. Tahzib F. Ethics, values, and law for public health in a world in turmoil. *Journal of Public Health*. 2025 Dec 18;47(Supplement_1):i1–4. Available from: <https://doi.org/10.1093/pubmed/fdaf146>
151. United Nations Development Programme (UNDP). When clean energy brings peace and security. [online]. UNDP: New York; 2026 [Accessed 9 June 2026]. Available from: <https://stories.undp.org/when-clean-energy-brings-peace-and-security>
152. Stanley Center for Peace and Security. Powering Peace: Charting a Future for Peace and Renewable Energy. [online]. Stanley Center for Peace and Security: Iowa; 2026 [Accessed 15 April 2026]. Available from: <https://stanleycenter.org/events/powering-peace-charting-a-future-for-peace-and-renewable-energy/>

153. Schapendonk F, Jaskolski M, Meddings G, Läderach P, Pacillo G, Diebold N. Climate Resilience and the Humanitarian-Development-Peace Nexus in Contexts of Protracted Displacement: Lessons from Jordan. [Online]. Consultative Group on International Agricultural Research (CGIAR):2024 [Accessed 28 February 2026]. Available from: <https://reliefweb.int/report/jordan/climate-resilience-and-humanitarian-development-peace-nexus-contexts-protracted-displacement-lessons-jordan>
154. United Nations Development Programme (UNDP). From crisis to resilience: Climate solutions for positive peacebuilding. [Online]. UNDP: New York; 2025 [Accessed 16 February 2026]. Available from: <https://www.undp.org/sites/g/files/zskgke326/files/2026-01/undp-from-crisis-to-resilience-climate-solutions-for-positive-peacebuilding.pdf>
155. Abu-Hamattah Z, Al-Shawabkeh AF, Abu-Hammad N. Climate Change in Jordan: Challenges and Mitigation Strategies. TOECOLJ. 2025 May 22;18(1):e18742130359972. Available from: <http://dx.doi.org/10.2174/0118742130359972250520065707>



A young boy gazes at the border fence in Ciudad Juarez as a man with a prosthetic leg reflects on their migration journey.
Image Courtesy: Dreamstime

GLOBAL
CLIMATE & HEALTH
ALLIANCE

info@climateandhealthalliance.org
www.climateandhealthalliance.org