Linking climate change and conflict

Natural resources, including water, land, and forests, have long been recognized as sources of contention, and sometimes even violence. Macro trends like population growth and climate change can exacerbate these issues, particularly in areas of scarcity. Population growth adds more pressure to a limited amount of resources, while climate change impacts resource availability and quality. In recent years, climate change has even been recognized as a threat multiplier, “aggravating stressors…such as poverty, environmental degradation, political instability, and social tensions.”

Climate change does not directly cause conflict. Instead, its effects (e.g., rising temperatures, shifting rainfall patterns) can lead to environmental impacts (e.g., loss of grazing land for cattle), which can result in socioeconomic tensions (e.g., farmers and herders).

competing for resources). This chain of reactions contributes to an increased risk of conflict, worse in contexts with weak governance, high rates of poverty, income equality, and existing social tensions.

At the same time, natural resources, the environment, and climate change offer an entry point for joint management, cooperation, and peacebuilding. They may also be able to provide cover for addressing underlying political challenges. Because of this, an integrated approach that combines conflict management with long-term strategies to strengthen good governance, alleviate poverty and economic inequality, and promote cooperation for sustainable natural resource management is required to reduce the risk of conflict.

The scientific consensus is that the world’s temperature is on the path to warm by 2 degrees Celsius, on average, by mid-century. The Intergovernmental Panel on Climate Change (IPCC) has projected that this warming will mean more frequent and intense heatwaves, fewer cooler days, more intense storms, and longer droughts. Warming oceans will mean more acidification and global sea level rise. Nearly 3.4 billion people in 78 countries are estimated to be highly climate vulnerable, with low readiness to adapt. Seventy-two percent of these countries ranked high on the fragile states index. Most of the highly fragile states have a large proportion of the population living in areas with high exposure to climate shocks and stresses, a majority of which are in Sub Saharan Africa.

The relationship between climate change, socioeconomic and political variables, and insecurity is complex and context specific (see Figure 1). It requires a systemic approach to identify the challenges and design effective interventions.

Figure 1: The relationship between climate change, socioeconomic and political variables, and insecurity is complex

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2 University of Notre Dame, 2016 ND-Gain Index.
Linking Climate Change and Conflict

There are several pathways\(^5\) through which the effects of climate change can exacerbate fragile settings:

EXTREME WEATHER, DISASTERS, AND DISPLACEMENT

\[\textit{Extreme weather events, expected to increase in frequency and intensity due to climate change, will lead to migration and displacement of vulnerable populations.}\]

In 2017, there were 30.6 million new people displaced. A study by the Overseas Development Institute found that between 2004 – 2014, “58% of disaster deaths and 34% of people affected by disasters occurred in countries that also appear in the top 30 of the Fragile States Index.”\(^6\) Disasters can trigger conflict in fragile settings due to perceived or real inequality in relief efforts, distribution of aid, and unwelcomed resettlement.

NATURAL RESOURCE-BASED LIVELIHOOD INSECURITY

\[\textit{Greater livelihood insecurity, worsened by climate variability, shifts migration patterns and exacerbates conflict over scarce resources.}\]

Climate change will alter the availability and quality of water, land, forests, and fisheries. For those dependent on these resources for their livelihoods, changes may lead to economic volatility, food insecurity, migration, and competition over more scarce resources.

FOOD INSECURITY AND PRICE VOLATILITY

\[\textit{Food insecurity – exacerbated by climate impacts on agricultural production and coupled with poverty – increases the likelihood and intensity of conflict.}\]^7

Changes in precipitation, higher temperatures, sea level rise, and extreme weather events will have negative effects on agricultural production, and ultimately food security.

CHANGING TRANSBOUNDARY WATER FLOWS

\[\textit{Population growth and climate variability place increasing pressures on rivers and lakes. Shared waters can be a source of dispute between countries and may be used as a tool during conflicts.}\]

Much of the world lives in shared river, lake, and groundwater basins. Most often, shared waters are a source of joint management, with 3,600 water-related treaties in place. As dynamics change in transboundary basins, existing agreements, and their dispute resolution mechanisms, will be tested.

Mercy Corps’ Approach to Climate Change and Conflict

Mercy Corps addresses climate and environmental drivers of conflict through a range of approaches. These approaches address one or more of the pathways discussed above and aim to reduce the risk of conflict, contribute to peacebuilding, and build resilience:


\(^6\) Peters, K., & Budimir, M. (2016). When Disasters and Conflict Collide. ODI.

\(^7\) World Food Programme. (2017). At the Root of Exodus: Food security, conflict and international migration.
1. Build capacity of institutions to create an enabling environment for peace and sustainability

An enabling environment for peace and environmental sustainability is central to addressing natural resource and climate drivers of conflict. This includes identifying the knowledge and technical gaps of formal and informal institutions and building capacity to manage natural resources, address tensions and disputes, and respond to disasters effectively. Further, increasing community awareness about climate change, environmental degradation, and natural resource management can help to create a broader enabling environment for creating cooperation, building peace, and ensuring sustainability.

**Inclusive Resource Management Initiative (IRMi)** worked in 20 villages in the western Terai plains of Nepal to enhance stability through resource-based conflict resolution and inclusive natural resource management. With support from USAID, the program operated from June 2013 to September 2016 and engaged a broad range of stakeholders in dispute resolution and mediation, training over 400 stakeholders in community mediation, negotiation, and dialogue. During the program period, nearly 50 forest-based resource conflicts were resolved, with a notable decline in resource-based conflicts in the districts involved in the program.

**Support the Community Based Initiatives for Peace in South Darfur** has been operating since 2018 with support from the United Nations and addresses conflict prevention and resolution through Community Based Resolution Mechanisms (CBRMs) and an Early Warning Network (EWN). This builds off of a previous program – **Building Local Capacity to Address Drivers of Conflict** (2014-2016) – in which Mercy Corps supported nine CBRMs to outline and document their terms of reference and provided training on peacebuilding, dispute resolution, negotiation, and decision-making. Between 2014 and 2016, 78 cases were brought to the CBRMs, 56 of which were successfully resolved through dialogues and negotiations. The CBRMs have also raised community awareness through a series of information sharing forums with pastoralist and agro-pastoralist community members on conflict resolution and conflict prevention plans.

2. Support strong and diversified livelihoods that are food secure

Strengthening and diversifying natural resource-based livelihoods can lower the risk of conflict between groups over scarce resources and allow communities to better cope with climate shocks and stresses, improving food security. Assessing vulnerabilities and risks of food systems and facilitating access to improved technologies, including information services, can help reduce crop loss and improve yields, while facilitating market linkages can increase household income. Further, working with communities, especially youth, to identify and support alternative economic opportunities can diversify sources of employment.

**Communities Helping their Environment and Land by Bridging Interests (CHELBI)** worked in Southern Ethiopia to reduce violence between agricultural and pastoral communities by promoting sustainable natural resource management, developing land use agreements, and building livelihood opportunities. **CHELBI**, supported by USAID for 28 months (2013-2016), promoted modern post-harvest technologies to reduce loss of harvests. This included transitioning traditional underground grain storage, which had an average of 20 percent crop loss, to lined storage that reduced moisture and insect infestation.

**Food Security and Inclusive Access to Resources for Conflict-Sensitive Market Development (FARM)** is a program based in the North Kivu province of Eastern DRC that began in 2017 with support from the Dutch Ministry of Foreign Affairs. Years of conflict have caused massive displacement and have undermined the agricultural sector. A majority of the population is engaged in agriculture, yet 60% of the population is food insecure. **FARM** is an integrated, conflict-sensitive program that aims to improve food security and address socioeconomic conditions by addressing barriers and improving access to markets. **FARM** also
supports strategies to strengthen land tenure for the most vulnerable, creating the enabling environment for climate-resilient agricultural investments and community led disaster risk reduction projects.

3. Manage use of and competition over natural resources to reduce conflict

Where natural resource scarcity leads to competition over resources, or where restricted access to resources is a source of tension, sustainably managing resources can reduce or prevent conflict. Developing resource sharing agreements and joint management across administrative boundaries can improve coordination and use, build trust through information sharing, and ultimately reduce resource tensions.

**Peace III** began in 2014 with funding from USAID with the aim of strengthening cross-border conflict management between Kenya and Uganda, and has integrated climate change into the assessment of risks and interventions. As part of the **Peace III** program, Mercy Corps facilitated a natural resource sharing agreement between the Dodoth and Turkana communities over grazing land and water resources. The agreement led to increased trade, improved government relations, and greater interest in cooperative initiatives.

Working with the Community Based Resolution Mechanisms (CBRMs) in Sudan, the UN-funded **Building Local Capacity to Address Drivers of Conflict (2014-2016)** developed an Early Warning Network (EWN) which integrated climatic and environmental updates, alerts communities along migratory routes about the movement of livestock herds, and provides timely information on the arrival of IDPs and returnees, in order to better manage land and water resources. The program has found these updates have considerably prevented confrontations between farmers, nomads, pastoralists, and agro-pastoralists.

4. Use the environment to build cooperation and peace

Natural resources and the environment are often considered neutral topics, particularly in situations of protracted conflict and intercommunal tension. These topics can provide a tangible entry point for dialogue as well as a platform for shared activities and joint management, fostering social cohesion. In fragile and conflict-affected settings, transboundary basins often serve as lone examples of cooperation in politically challenged contexts (e.g. Indus, Lower Jordan River). With changing resource availability due to climate change, population growth, and environmental degradation community mapping can identify sources of tension and determine priority areas for rehabilitation. Bringing communities together to work on rehabilitation projects can build social cohesion while improving natural resource sustainability.

**CHELBI** worked with communities in Southern Ethiopia to identify and implement natural resource rehabilitation in seven locations. These locations were identified as being severely degraded and sources of resource-based conflicts. Over 13,000 community members engaged in the activities, and nearly 2,000 hectares of degraded land were rehabilitated. These restored areas were able to provide fodder for animals during the dry season where they previously were not available.

**Conciliation in Nigeria through Community-Based Conflict Management and Cooperative Use of Resources (CONCUR)**, supported by the UK Department for International Development and undertaken between 2013 and 2016, was a peacebuilding program that aimed to reduce violence in the Middle Belt of Nigeria, and focused on managing the recurrent conflict between farmers and pastoralists. **CONCUR** brought together members of conflicting communities through joint natural resource management and shared economic activities, including communal gardens, milling facilities, and markets. The joint projects increased trust and reduced overall tension through more frequent and positive interactions between farmer and pastoralist communities in the **CONCUR** locations.
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About Mercy Corps
Mercy Corps is a leading global organization powered by the belief that a better world is possible. In disaster, in hardship, in more than 40 countries around the world, we partner to put bold solutions into action — helping people triumph over adversity and build stronger communities from within. Now, and for the future.