Adaptation & Resilience Sub-Saharan Africa Asia

20 JANUARY, 2021

How climate services can help mitigate crises and conflict (https://www.climate-diplomacy.org/news/how-climate-services-can-help-mitigate-crises-and-conflict)

Planetary Security Initiative

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Extreme weather events such as droughts and floods are expected to become more severe under future climate conditions. This implies a concern for policymakers in national and international security, such as expressed by former UN Secretary-General Ban Ki-Moon:

"*Extreme weather events continue to grow more frequent and intense in rich and poor countries alike, not only devastating lives, but also infrastructure, institutions, and budgets—an unholy brew which can create dangerous security vacuums*. (20 July 2011)"

The 2010 flooding in Pakistan is an example of how the lack of proper disaster preparedness and management can lead to social unrest and conflict. Millions were affected, and as a consequence, many people demonstrated for access to medication and better food security.

Being prepared and successfully managing potential disasters is of utmost importance to reduce negative impacts on economies, agriculture, and livelihoods, grievances, and conflicts. In this, climate information and services, i.e. the timely provision of important climate data to decision-makers, play a

key role. The Consultative Group for International Agricultural Research (CGIAR) (https://www.cgiar.org/) and partners develop such tools. Aiming at disaster-risk reduction and climate change adaptation and livelihood resilience, these tools have the potential to contribute to peacebuilding.

For instance, a low-cost remote weather station (https://euagenda.eu/upload/publications/untitled-95650-ea.pdf) developed by researchers of the International Water Management Institute (IWMI (https://www.iwmi.cgiar.org/)) can potentially help with improving flood resilience as well as managing the amount of water required for irrigation. The open-source tool was developed on request by the irrigation department of the Nachchaduwa catchment in Sri Lanka. Over the past two decades, Sri Lanka has seen an increase in the frequency of floods, with more than five million people being impacted between 2000 to 2013. The weather station is an early warning system helping managers of water reservoirs to maintain a full water supply for irrigation on the one hand, and avoiding runoff on the other. The remote weather stations measure rainfall data every five minutes and send an SMS to the reservoir managers when a certain rainfall threshold is exceeded. This improves the response time for managers to balance full water supply with enough storage volume for runoff water, and hence reduces the risk for flood damages. Performance evaluation (https://www.gfdrr.org/sites/default/files/publication/Remote-Weather-Station-Evaluation-CF.pdf) of the tool a couple of years later showed promising results: The weather stations are accessed by reservoir managers regularly and are also used and further developed by universities and several governmental and non-governmental institutions. The Water Risks Research Group of IWMI, led by Giriraj Amarnath, has also developed other flood resilience tools such as flood inundation models (https://www.iwmi.cgiar.org/2018/08/getting-ahead-of-disaster-risks/) or index-based flood insurance (IBFI) (https://ibfi.iwmi.org/), helping to predict and plan for as well as relief from extreme weather events.

Another example is CCAFS (https://ccafs.cgiar.org/)'s (CGIAR Research Program on Climate Change, Agriculture and Food Security) Climate Information Project in Senegal (https://ccafs.cgiar.org/outcomes/impact-climate-information-services-senegal). In Senegal (https://www.uncclearn.org/wp-content/uploads/library/wfp10.pdf), climate-change-related shocks such as erratic rainfall patterns and rising sea-levels result in increased vulnerability to food security. This became apparent for instance in 2011/2012, when the country was hit by a severe drought and subsequent flood. In collaboration with the Senegalese National Meteorological Agency, the project aimed at improving the delivery of useful climate information such as seasonal rainfall forecasts and agricultural advice to Senegalese farmers on a large scale. Farmers use this information to plan for

sowing dates or to select crop varieties, preventing crop losses as a consequence of unexpected weather events. An impact assessment study indicated that seasonal forecasts are transmitted to up to 7.4 million rural people across Senegal via rural community radio stations and SMS.

According to a recently published article (https://www.sciencedirect.com/science/article/pii/S0306919220301093#!) by scientists of CGIAR's International Water Management Institute (IWMI (https://www.iwmi.cgiar.org/)), understanding the relationship between water, agriculture, and poverty is crucial to inform policy-makers. This understanding, however, is limited. On the one hand, because there is a tendency to only focus on some of the many links within the water – agriculture – poverty nexus. On the other hand, because there are measurement issues on both the demand and supply side. For instance, the authors observe that irrigation for agriculture is mostly being assessed in terms of water accessibility, therefore overlooking the importance of the timing of irrigation and the quantity and quality of the used water. In the context of climate change and variability, addressing this nexus is highly relevant to prepare communities that are dependent on agriculture for future hydro-meteorological hazards and water-related conflicts. It is likewise important to further investigate how climate services can be implemented to meet the needs of diverse agricultural communities, and to pinpoint research and innovation gaps to improve decision-making in climate risk management.

Find out more about CGIAR's climate security work HERE (https://www.climatesecurity.cgiar.org/).

[This article originally appeared on planetarysecurityinitiative.org (https://www.planetarysecurityinitiative.org/news/how-climate-services-can-help-mitigate-crises-and-conflict).]

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Related Reading

South Asia's disaster risk reduction policy requires an overhaul (http://www.climate-diplomacy.org/news/south-asia's-disaster-risk-reduction-policy-requires-overhaul)

Without a coordinated strategy to tackle flooding disasters beyond the traditional infrastructural measures and river water sharing agreements, South Asia's woes will continue in the future.

Read more (http://www.climate-diplomacy.org/news/south-asia's-disaster-risk-reduction-policy-requires-overhaul)

Climate change, conflict and fragility – The basics (http://www.climate-diplomacy.org/news/climate-change-conflict-and-fragility---basics)

Although there is no causality nor direct and automatic link between climate change and conflict, we can see that climate change can intensify conflict drivers and make it harder to find stability. The online workshop *"Climate change, conflict and fragility: Increasing resilience against climate-fragility risks"*, organised by the European Peacebuilding Liaison Office (EPLO) and adelphi, looked into this complex relationship.

Read more (http://www.climate-diplomacy.org/news/climate-change-conflict-and-fragility---basics)

Conflict Transformation South America

13 JANUARY, 2021

Assessing impacts of environmental peacebuilding in Caquetá, Colombia: a multistakeholder perspective (/news/assessing-impacts-environmental-peacebuilding-caqueta%CC%81-colombia-multistakeholder-perspective)

Héctor Morales Muñoz (ZALF)

A major challenge in the field of environmental peacebuilding is showing the impact of its initiatives. Questions emerge, such as "Which dimensions of post-conflict peacebuilding are more likely to be affected by natural resource management projects?". Although quantitative studies assess the relation between natural resource management programmes and conflict risks, there is less research on what the specific mechanisms involved in implementing projects designed for environmental peacebuilding are.

Conflict Transformation Global Issues

11 JANUARY, 2021

The past and future(s) of environmental peacebuilding (/news/past-and-futures-environmental-peacebuilding)

Tobias Ide (University of Brunswick), Carl Bruch (EnPAx), Alexander Carius (adelphi), Ken Conca (American University), Geoffrey Dabelko (Ohio University), Richard Matthew (UC Irvine) and Erika Weinthal (Duke University)

Chatham House's International Affairs Journal has just released a special issue focused on environmental peacebuilding. adelphi Managing Director Alexander Carius, alongside Tobias Ide, Carl Bruch, Ken Conca, Geoffrey Dabelko, Richard Matthew and Erika Weinthal, introduces the special issue giving particular emphasis on environmental opportunities for building and sustaining peace.

Environment & Migration Asia

23 DECEMBER, 2020

South Asia could profit from targeted policies on climate migration (/news/south-asia-could-profit-targeted-policies-climate-migration)

Dhanasree Jayaram, MAHE

A lack of targeted policies to manage climate migration in South Asia is aggravating the vulnerabilities of various communities in the region. International and regional cooperation and strategy on climate action (broadly) and climate migration (specifically) is the need of the hour.

Climate Diplomacy North America

16 DECEMBER, 2020

The Divided States of America (/news/divided-states-america)

Dennis Tänzler (adelphi)

The United States is at a critical juncture in its future climate policy directions. Biden's electoral victory and the appointment of former Secretary of State John Kerry as special envoy present opportunities, yet America remains deeply divided. By engaging in transatlantic climate cooperation not only with allies, but also sceptical parts of society, Europe can help drive the climate conversation forward.

Load more (/news/how-climate-services-can-help-mitigate-crises-and-conflict?page=1)

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