

More than Joining the Dots

A free online course offers training and tools to better understand the complex nexus between climate change and poverty, preparing participants to work for a sustainable future

We are increasingly aware that climate change, vulnerability and poverty interact in multiple ways globally, contributing to interconnected cycles of negative impacts. This climate-poverty nexus challenges the efforts of coastal communities and small-scale fisheries (SSF) to build resilience. In this article, we present several new tools, including a recent report and a new free online course, co-designed and led by the Food and Agriculture Organization of the United Nations (FAO) and the University of the West Indies (UWI) that offer frameworks and approaches for addressing the nexus.

Coastal small-scale fisheries communities around the world are on the front line of climate change impacts. They face unprecedented increases in the frequency and severity of acute weather events, like hurricanes, as also the ever-increasing chronic damage from slow-onset stressors like coral bleaching. Changes to marine systems are accompanied by increasing stressors and associated impacts on the terrestrial side. These include changes to rainfall patterns affecting freshwater availability as well as flooding and stormwater runoff impacting infrastructure and nearshore habitats. These impacts are also closely linked with social dimensions.

Coastal communities and SSF are disproportionately affected by climate change, due to a combination of factors such as high exposure to hazards, socioeconomic marginalization and vulnerability, inadequate infrastructure. They also lack access to services such as healthcare and social protection such as insurance or employment benefits. Repeated and continued exposure to shocks and stressors erodes the assets used for recovery, in a cycle of worsening existing vulnerabilities, creating

new poverty. Many communities, organizations and countries are struggling to adapt to these challenges. At the same time, there is a significant adaptation gap, apparent in the inadequate and inequitable allocation of climate finance globally to support

Without effective policies and practical actions that work together, the livelihoods of millions of small-scale fishers are at risk...

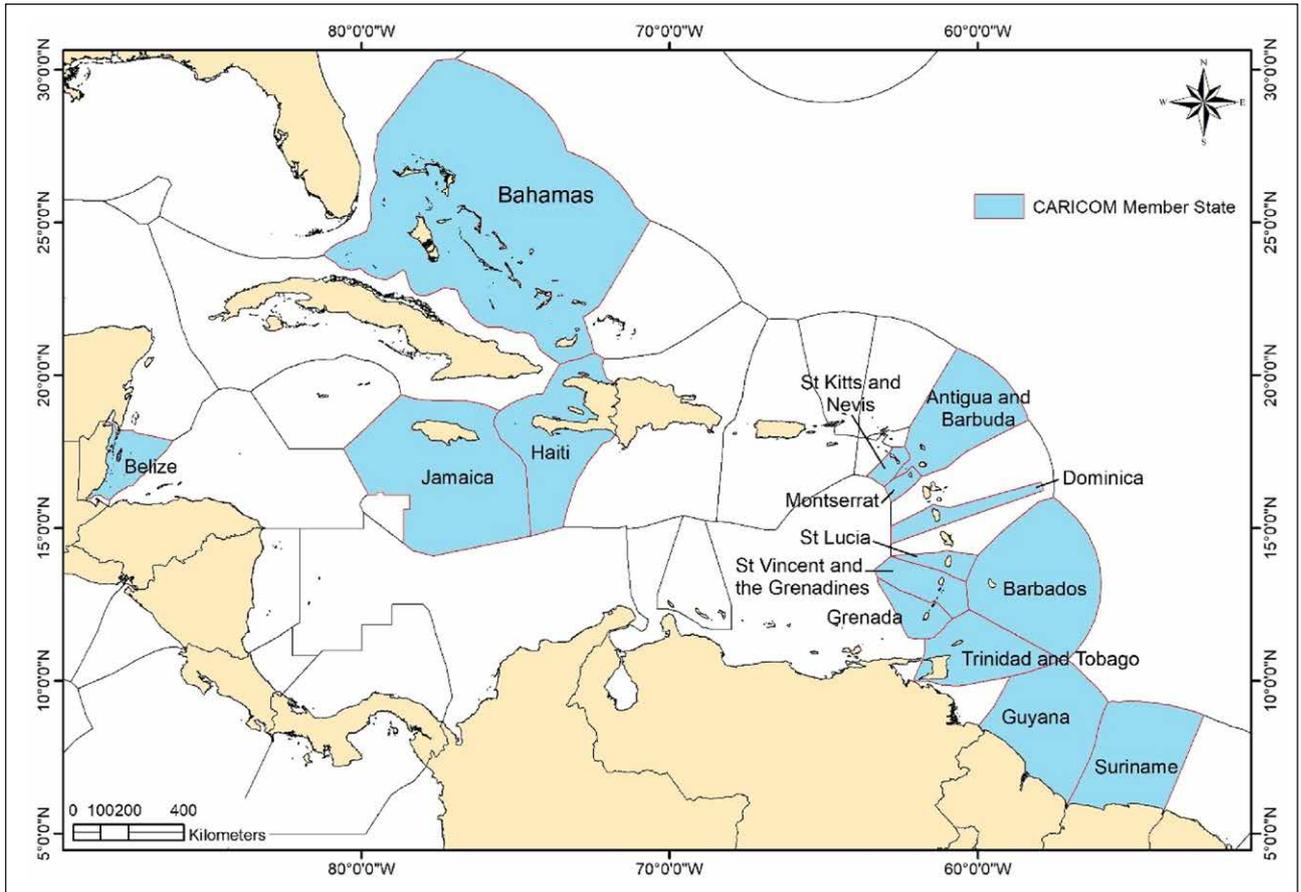
coastal communities and small island developing states (SIDS) seeking to build resilience.

To address these issues, urgent action is needed in key areas, including knowledge, policy, finance and on-the-ground action. Without effective policies and practical actions that work together, the livelihoods of millions of small-scale fishers are at risk, along with the food security of millions of people who rely on fish as a primary source of protein. Both the course and report discussed in this article offer insights and tools to improve the co-ordination between climate responses and poverty-reduction efforts in the fisheries sector to address this deficit of adaptive capacity.

Climate agenda

The report is titled: *Addressing the climate change and poverty nexus: A coordinated approach in the context of the 2030 Agenda and the Paris Agreement* (Charles et al. 2019). It provides a framework to effectively link actions and policy towards achieving the goals of the climate agenda (mitigation and adaptation) and the development agenda (poverty reduction and food security). This includes designing and

This article is by **Alison Macnaughton** (Alison.MacNaughton@fao.org), Fisheries and Social Protection Specialist, UN Food and Agriculture Organization (FAO) Rome, **Patrick McConney** (patrick.mcconney@gmail.com), Senior Lecturer, Centre for Resource Management and Environmental Studies, University of the West Indies (UWI) Cavehill, Barbados, **Daniela Kalikoski** (Daniela.Kalikoski@fao.org), Fisheries Officer, UN Food and Agriculture Organization (FAO), Rome, **Anthony Charles** (tony.charles@smu.ca), Director, School of Environment, Saint Mary's University, Halifax, Canada, **Shelly-Ann Edwards**, (sedwards@pioj.gov.jm) Programme Director, Poverty Reduction Coordinating Unit, Planning Institute of Jamaica, **Sharon Hutchinson**, (Sharon.Hutchinson@Sta.Uwi.Edu) Head of Department, Agricultural Economics and Extension, UWI St. Augustine, Trinidad and Tobago, **Jefferson Jaikissoon**, (jefferson.jaikissoon@fao.org) Agricultural Value Chain Development Specialist, FAO Subregional Office for the Caribbean, Guyana and **Jesse Williams**, (jesse.williams@my.uwi.edu), PhD Candidate/ Research Assistant, UWI St. Augustine, Trinidad and Tobago



Source: <https://www.tandfonline.com/doi/full/10.1080/08920753.2022.2082835>.
 Figure 1. CARICOM Member States and the ocean areas under their jurisdiction

implementing climate responses more coherently with poverty reduction and food security measures, in a manner that is inclusive. It has five key elements:

- * Applying a pro-poor lens and including targeted poverty-reduction actions in climate mitigation and adaptation;
- * Climate-sensitive poverty reduction and food-security initiatives;
- * Cross-cutting and sectoral synergies of climate and development agendas;
- * Inter-sectoral and institutional coherence and co-ordination; and
- * Strengthening and supporting local initiatives.

The online learning course, ‘Addressing the Climate Change and Poverty Nexus’, offers practical tools and approaches to address the linked challenges. It aims to support local leaders and sectoral organizations, policymakers and others working in coastal communities and with SSF. Co-developed by FAO and UWI’s Centre for Resource Management and Environmental Studies and the

Global Institute for Climate Smart and Resilient Development, it brings together information/data from various disciplines and policy areas. It also offers tools to support innovation and the design of targeted, place-based approaches.

In this way, the course intends to strengthen awareness, motivation, understanding and capacity. It does so by supporting local, regional and national actors (sectoral organizations, inter-governmental organizations or IGOs), governments and non-governmental organizations (NGOs) to advocate for and implement policies and good practices that will result in more equitable and inclusive Blue Transformation, one that prioritizes climate justice and resilient fishing communities.

A pilot edition of the online course was offered in 2022 from May to June. It included self-paced learning and seminar-style group dialogues, with 55 invited participants from fisheries, climate, development and environmental conservation sectors in 13

Caribbean countries. Following this, in November 2022, a live panel discussion was held with course organizers, alumni and invited specialists at the COP 25 Virtual Ocean Pavilion. Panel members shared insights and key lessons from the course, and discussed how they were able to put some of the tools and concepts into practice at institutional and local community levels.

Life experiences

In Trinidad and Tobago, researchers undertook a Rapid Climate-Poverty Vulnerability Assessment of the small fishing village of Orange Valley. The community of 400 people already experiences general socio-economic challenges such as crime, piracy at sea, marine pollution and, more recently, increasing flooding. Focus-group discussions encompassed women, youth and the elderly who reside in the community.

Residents were eager to share their livelihood experiences, the role of the local and national agencies affecting their livelihoods and how weather events have affected and could further impact their livelihoods. From these discussions emanated the revelations that transient poverty affects the majority of households, a result of the volatility of fish and shrimp landings, due to seasonality, and declining landings.

Through community engagement and sensitization workshops with villagers, including primary school children, possible changes in fish landings and income due to climate change was discussed. However, residents have been resilient. They generally keep stores of frozen fish at home as a reserve protein source in the short term to reduce their vulnerability. This community engagement was successful in raising awareness of how climate change could impact the mix of fish landings, incomes and household diet and food security. It also encouraged youth to explore new livelihood approaches. It highlighted the need for the community to develop more long-term adaptation strategies.

As noted by one course alumni, in theory the climate-poverty relationship is apparent. But the depth of these

intertwined challenges become truly evident when you move from the classroom out into the field. In Guyana, following the course, the alumni collaborated with government technicians and aquaculture farmers who grow brackishwater fish and shrimp along the Corentyne Coast to implement a suite of training to improve the climate resilience of their enterprise. It was clear during the fieldwork how brackishwater farmers are quick to perceive their own climate vulnerability, relating decline in productivity during weather events to the sensitivity and exposure of their farms.

During the field training, specific modules targeted gaps in knowledge of production systems, and identified mangrove restoration as an exercise to build resilience to some of the physical impacts being experienced. As a result of the training, farmers have new tools to support thinking more critically of these inter-related phenomena. They are applying this new knowledge to mobilize resources from the UNDP Small Grants Programme for expanding mangrove restoration along the coastline, having an improved appreciation of their economic significance to brackish aquaculture.

Another course alumni and panelist from Jamaica observed that the forum provided an opportunity to concretize the value of the course, while highlighting important achievements in the climate change and poverty arena at the country level. It further facilitated reflection on what more needs to be done to strengthen multi-sectoral collaboration and implementation approaches that embrace the nexus and enable integration at all levels.

Climate change and poverty dynamics require careful consideration. The inclusion of stakeholders is key, specifically those residents of fishing and coastal communities who are most vulnerable to shocks and hazards. Social protection and poverty-reduction systems must be proactive and responsive in addressing the various needs of these groups. Through relevant programmes, institutional mechanisms and policies, Jamaica continues to build climate resilience and adaptation, while seeking to reduce informality,

strengthen access to social protection and build economic resilience among these groups.

Promoting spaces

In sum, a key message from the report and the course is in recognizing that understanding integrated issues and approaches is more than simply joining the dots. We need to deepen our understanding of how the climate-poverty nexus impacts coastal communities and SIDS, SSF and the production of aquatic foods. Fisheries sector leaders and professionals working in climate, fisheries and social sectors need spaces that promote connecting, communicating and working with each other, to share data and perspectives and better understand the multiple issues, the ways that multiple shocks and stressors interact to increase vulnerability and worsen impacts, and the extent and distribution of these impacts.

Through this type of engagement, we can work to build the skills to recognize and communicate the interlinked problems clearly to colleagues and stakeholders, as well as developing and testing actionable tools. Further, developing this integrated understanding is an important entry point to ensuring that available resources are used efficiently and for the greatest benefit to those who most need it.

What is needed to address the nexus is often not more policy but better policy that considers coasts, fisheries and poverty in established processes for, say, climate action. Social protection can be one such type of better policy, a key investment that can be implemented with an integrated approach to help move people out of climate and social vulnerability towards well-being. Specifically, measures such as cash transfers, food assistance and insurance programmes can provide a safety net for small-scale fishers during times of environmental shocks, such as storms or droughts. Linkages with Early Warning Systems can help improve preparedness and reduce vulnerability.

Combined, this can help to reduce the economic and social impacts of climate change, allowing communities that experience high

levels of vulnerability to maintain their livelihoods and build resilience to future shocks. Additionally, by promoting sustainable fishing practices and reducing overfishing, social-protection policies can contribute to long-term conservation efforts and support the achievement of broader development goals, such as poverty reduction and food security.

Perhaps above all, fisherfolk organizations need to continue to be better engaged overall in sharing knowledge, building skills, planning and implementing for resilience. The free self-paced version of the course, 'Addressing the Climate Change and Poverty Nexus', is currently available online. The course takes an estimated 20 hours to complete and is co-certified by UWI and FAO.

Registering for this course offers a unique opportunity to deepen your knowledge and understanding of the complex and interconnected issues surrounding climate change, poverty and fisheries. Through engaging course modules and real-world case studies, you will learn about innovative strategies and policies to promote sustainable and resilient fisheries, reduce poverty and food insecurity, and mitigate and adapt to the impacts of climate change. By taking part in the course, you will become better equipped to contribute to a more equitable and sustainable future for our oceans and coastal communities, and to play an active role in the global efforts to achieve the Sustainable Development Goals and the Paris Agreement targets. 

For more

Addressing the Climate Change and Poverty Nexus

<https://www.fao.org/in-action/capacitacion-politicas-publicas/cursos/ver/es/c/1608767/?submit=Course+overview>

Live panel session at COP 25 Virtual Ocean Pavilion

<https://youtu.be/ywvl8Ub5H1I>

Social Protection for fisheries and aquaculture - FAO's work

<https://www.fao.org/in-action/social-protection-for-fisheries-and-aquaculture/en>