

## CLIMATE MALADAPTATION: MIGRATION, FOOD INSECURITY, AND THE POLITICS OF CLIMATE CHANGE IN TIMOR-LESTE

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Climate change and food insecurity in Timor-Leste. Source: Penny Tweedie of Oxfam Australia

In April 2021, torrential rainfall across Timor-Leste induced by tropical Cyclone Seroja resulted in massive countrywide flooding and landslides that destroyed thousands of homes and public infrastructures, brought several fatalities, and displaced thousands of people. These flash floods were unprecedented, as there is no record of similar events in the past two generations. It was reported that the climate-induced Cyclone Seroja is the culprit behind the hazards, and it's affected the poorest and most vulnerable people of Timor-Leste as a result of the loss of livestock and the destruction of crops.

Timor-Leste is increasingly susceptible to climate change, evidenced by climate-induced extreme rainfall in recent years that is becoming more intense and frequent and will have a significant impact on food security, health, and people's livelihoods. However, efforts at climate adaptation have fallen

short of reaching their intended outcomes and, instead, some adaptation strategies are shown to bring more harm, known as *maladaptation*. Are climate-resilient projects effective in protecting communities from climate change's adverse effects? Despite millions of dollars spent on climate adaptation and mitigation, the promise of resilience is out of reach for many Timorese people.

Due to a lack of local political will, climate change policies, programs, and practices in Timor-Leste are heavily designed and shaped by outside climate experts. When I reviewed a corpus of climate change adaptation programs developed and executed between 2010-2020 in Timor-Leste bv international organizations and development agencies in Timor-Leste, including the UN and World Bank, I found that the majority of adaptation programs are development projects repackaged as "climate solutions." They do not offer immediate actionable solutions, and the scope of their adaptation policies is rather limited and fragmented. Instead, they provide a series of climate planning and risk assessments that are developed to inform later actions. They include "to-do-list" policies such as impact assessments, technical tools, stakeholder collaboration, government entities, and development other agencies, and policy recommendations without specific policy actions or implementations.

Climate as development projects has allowed the international organizations in Timor-Leste to depoliticize climate change adaptation policy by framing it through the lens of a technocratic and approach managerial that requires specific development-oriented solutions. While the UN defines vulnerability reduction as the core of climate adaptation, however, vulnerability has different meanings and understandings across political actors working on climate adaptation programs. For instance, the approach to climate adaptation in Timor-Leste pays little attention to the human security dimension of the climate crisis, ignoring the reality that adaptation is a profoundly political undertaking because the adjustments that people make to their livelihoods in the face of multiple shocks and changes have uneven outcomes. By depoliticizing an important issue such as the impacts of climate change,

international organizations and development agencies fail to address the source of people's vulnerabilities, such as climate-induced food insecurity and migration.

As an agrarian society, climate hazards pose serious risks to agricultural productivity. Since more than 60 percent of the population depends on agriculture for income and survival, climate change is set to alter rainfall patterns, and Timor-Leste's food production is more likely to be one of the most affected in Southeast Asia. In 2016, the Timor-Leste Ministry of Agriculture found that the South Coast of Timor-Leste received low rainfall due to the El Niño phenomenon, resulting in massive crop failures, adding to the deaths of livestock. This agrarian distress – where sustaining agricultural livelihoods becomes more challenging – has led farmers to delay rice field preparation.

Timor-Leste is highly susceptible to the effects of climate change. It is predicted to become about 1.5°C warmer and about 10% wetter by 2050, with significant harm to agricultural productivity that might spur greater rural-urban migration. Recent changes in environmental and market conditions have to young people migrating contributed employment opportunities at a higher rate. For instance, in Dili, out-migration makes up 40 percent of residents in the capital of Timor-Leste, and half of them are women. Most of the migrants enter the labor force as service and sales workers, domestic workers, craft and related trades workers, plant and machine operators, and elementary occupations. Those who couldn't find jobs traveled abroad to countries such as the United Kingdom, Australia, and South Korea and were employed in labor-intensive industries from horticulture to the poultry industry. Most recently, in early 2022, as many as 5000 youths were recruited to work in Qatar, despite warnings about dire working conditions and other human rights violations. But politically, international migration has been a development strategy for the government of Timor-Leste and a solution to the issue of demographic dividends. Migrant workers contribute significantly to the national income, with remittances making up 15 percent of the country's GDP.

With international out-migration expected to grow, how does this pattern allow us to think about the ways climate change drives human mobility and food insecurity? According to the UN, between 2008-2018, there were approximately 26 million people who migrated as a result of climate-related disasters. This number is expected to increase even more with the growing frequency of tropical storms, hurricanes, droughts, and floods in many parts of the world.

A useful way to think about the relationship between climate and mobility is not to see them in a direct correlation, but climate change, instead, as a trigger to other existing drivers of human mobility, such as political, social, economic, and demographic circumstances that adversely affect people's living conditions, and are obliged to leave their homes, or choose to do so, either temporarily or permanently. UN recognizes that migration is itself an adaptation strategy to climate change, as it helps people manage risks, diversify their income, and cope with environmental changes affecting their ways of life. Migration offers alternative sources of income and reduces reliance on the environment for subsistence, particularly in the case of agrarian societies like Timor-Leste.

Because migration and food insecurity inextricably related to the issue of labor markets and rural-urban economic inequality, I examine both issues in the context of precarity. Linking precarity to climate change, both issues can be understood through the relationship between adaptation and vulnerability. Climate precarity, then, builds on the notion of vulnerability but draws instead from the concept of precarity to shift our understanding of adaptation to the issue of power, rooted in a specific geographical milieu, and provide us with analytical tools to examine how precarity is mediated through power structures. Rather than factoring vulnerability into broader frameworks for analyses of climate change, this form of vulnerability is produced over time and situated in societies and their political economies. Climate precarity is a new methodological site to better understand how power and authority mediate climate change adaptation programs and define who is included and excluded from conversations about climate change adaptation programs and what are

possible political consequences for future inaction. The precarization of climate vulnerabilities and adaptation allows for more political imagination in how climate change shapes people's livelihoods and triggers their precarity.

When the understanding of climate risks is contextually grounded, integrating climate science with local evidence that is sensitive to and representative of local community voices and concerns, more appropriate strategies can be developed to achieve fair and effective adaptations to climate change. For instance, employment policies must be conscious of the linkages between global warming and changing labor markets. Adaptation strategies must be deliberate in building a resilient agriculture sector that is climate-ready and able to promote food production, create jobs in the agriculture sector, and support economic growth in rural communities. Similarly, adaptation programs can turn their attention to see human mobility as a form of adaptation strategy where governments and international actors alike can develop better mobility regulations to understand and prevent causes that contribute to distressed migration.

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