



WHERE  the
RAIN FALLS

FIRM FOOTING IN THE FACE OF CHANGE: Rights & Equity in the Context of Climate Change, Food Insecurity and Human Mobility



Empowering People; Enabling Action

Past emissions of greenhouse gases have locked in significant climate change impacts – impacts happening now. The first decade of the 21st century was the hottest since 1850, and sea levels rose twice as fast from 1993-2010 as the average rise from 1901-2010. Climate change threatens efforts to end poverty, especially hunger and malnutrition, potentially decreasing agricultural yields, increasing water scarcity, and altering the spread of pests and diseases. Climate change impacts the poorest people first and worst, those with the least capacity to adapt and the least responsibility for the problem. The IPCC's 2013 report indicates that current emissions trends could push average temperatures as much as 5.5°C over pre-industrial levels, but with ambitious action, we can stay below a 2°C rise, the threshold at which scientists believe we can avoid the worst climate impacts.

Where the Rain Falls, research undertaken by CARE and the United Nations University, confirms that communities are already grappling with the effects of changing rainfall patterns. Given the significance of these changes for people living on the edge of crisis, these vulnerable, food insecure households must be supported to make better and more informed choices: a critical element of successful adaptation. They must be empowered to shape their own futures – to participate in decision-making and realise their rights to development and food security. If we do not reduce emissions urgently and drastically, if we do not expand livelihoods and risk management options for vulnerable households, they will fall further into poverty with no choice but to migrate. The longer governments wait to act, the worse the impacts and the higher the financial and human costs.

**It is not too late to act
to defend climate justice.**

WHERE THE RAIN FALLS

Where the Rain Falls is a research to action project, funded by AXA Group and the MacArthur Foundation, that seeks to increase understanding of the relationship among changing rainfall patterns, food security, and human mobility. The research conducted at district-level in 8 countries* generates a more nuanced understanding of how climatic factors affect food security, migration, and risk management choices. This deeper understanding informs adaptation and food security investments and policies to help ensure that whatever strategies households use, including migration, it contributes to increased resilience to climate change.

* Peru, Guatemala, Ghana, Tanzania, India, Bangladesh, Thailand, Vietnam

EVIDENCE FOR URGENT ACTION

Increased Climate Variability; Increased Risk

Across the eight research sites, findings confirm that 79 percent of surveyed people perceive climatic changes today, such as drought, floods, shifting rainy seasons, dry spells, and more intense rain. For poor, food-insecure households with agriculture-based livelihoods who often do not have access to weather and climate forecasts and who rely on traditional knowledge, these changes matter greatly for the viability of their livelihoods.

In Bangladesh, 89 per cent of research households are affected economically by the prevailing weather patterns and rainfall variability. In Ghana, 85 per cent of research households live mainly from subsistence agriculture and livestock production, yet have no access to irrigation, making agriculture completely dependent on rainfall.

Largely agriculture-based households overwhelmingly report that shifting rainfall patterns are already negatively affecting levels of food production, creating unpredictable and unreliable harvests and contributing to food and livelihood insecurity.

Due to households' high dependence on rainfall for agriculture, these observed changes shape livelihood and risk management decisions. Migration, generally within borders to urban or rural areas, plays an important part in their struggle to deal with rainfall variability and food and livelihood insecurity. Where dependence on rain-fed agriculture is high and diverse livelihood options are few, rainfall variability's impact on food insecurity particularly influences household migration decisions.

In the Tanzania research communities, where there are few off-farm livelihood options, the top three factors shaping migration decisions are increased drought frequency, longer drought periods, and water shortage.

Vulnerability, Equity, and Empowerment

In the face of climate change, the ability to make informed choices to manage risk and reduce vulnerability is vital. While migration enhances some households' resilience, for others, it is a means of survival and may even erode assets and increase vulnerability. In the face of climate change, the ability to make informed choices to manage risk and reduce vulnerability is vital. The migration experience of some households reveals how important gender equality, rights, and governance as well as effective access to resources, livelihood options, and education all are to the likelihood that migration will be a successful choice.

Gender Equality and Women's Empowerment

In Kurigram District in Bangladesh, research found that 97 percent of migrants are male, imposing significant burdens on women left behind, including additional workload and vulnerability to sexual harassment. This in turn creates an impetus for fathers to marry daughters early – before they are stigmatized by sexual harassment. This experience highlights the need to integrate gender equality and women's empowerment in adaptation.

Integrating gender requires engaging both women and men to examine how climate change and actions to address it impact them differently and to raise awareness of gender roles and how they can limit adaptive capacity. Programmes must address barriers to women's equal participation in decision-making at household and community level. And women's access to information and resources, including land and financial services, must be enhanced.



Access to land, water, and diversified livelihoods

Secure, equitable access to basic agricultural inputs, like land and water, and diversified livelihood options is vital for food insecure households dependent on agricultural livelihoods. In Vietnam, research households who exhibit the highest levels of vulnerability and who are most likely to migrate are largely landless (31 percent) and land-scarce (26 percent) households. As land ownership becomes more concentrated, landless and land-scarce households often seek agricultural labour on larger, nearby farms, but increasing mechanisation of farming in the Mekong Delta is decreasing the demand for labour among the landless and land-scarce. These changes and households' lack of access to land mean increasingly fewer livelihood options other than migration. Similarly, the research communities in India depend on a single annual harvest, for which they rely on canal irrigation. However, they face increasing challenges in accessing adequate water as nearby industrial development increases competition for water as well as land. Further, this development has not led to greater off-farm options for vulnerable households, as labour is largely imported.

Governance & Safety Nets

The research communities in Thailand demonstrate a relatively high level of resilience and have strong social and political networks, access to infrastructure, and government safety net programmes. While 51 percent of surveyed households consider the impact of rainfall-related stress on their livelihoods to be significant, a large majority is food secure. In India, by contrast, while the government has instituted important national social safety net programmes, our research found that the most vulnerable families are sometimes excluded from these programmes. For particularly vulnerable households for whom migration may be a last resort and for households facing increasingly frequent hazards, safety nets play a critical role in keeping them from falling further into poverty. Safety net programmes must be effective and targeted to benefit the most vulnerable. Poor populations must have access to mechanisms to hold governments accountable.

Youth & Education

Education enables youth to access a variety of livelihood options, including migration, and to lift themselves out of poverty. The research data show that in countries where migration generally enhances resilience, migrants have higher levels of education: among current internal migrants in Thailand, over 75 percent have education beyond grade 9. Generally, across all eight countries, in households who use migration successfully, children have several years more education than their parents, revealing a general upward trend in a family's future. Migration itself can enhance education. In Thailand, over 38 percent of migration is motivated by education.



However, migration can also hinder a child's education, and as households struggle to manage risk today, the impact of those decisions on future generations must not be neglected. In Janjgir District in India, entire families rather than individuals migrate. This often results in significant disruption of children's education, creating an erosive, inter-generational trend that leaves children of migrants at a disadvantage with fewer livelihood options for their futures. Access to education is a fundamental right that vulnerable people must be able to realize to enhance their ability to make informed

decisions about migration, to increase their livelihood options, including when they migrate, and to avoid potentially erosive consequences of a decision to migrate.

The experience of households across the 8 research countries reveals that vulnerability and the capacity to make informed decisions are highly dependent not only on access to options and resources but also on good governance, gender equity, and rights to natural resources and education. Climate change presents new, dynamic and significant challenges to already poor and vulnerable populations.

URGENT ACTION: COMMUNITY-BASED ADAPTATION FOR FOOD INSECURE HOUSEHOLDS

Research into Action

Addressing the climate crisis requires urgent action. CARE is already taking action, leveraging the research findings, particularly those regarding livelihoods, equity and rights, in community-based adaptation projects in four of the eight study countries: India, Thailand, Peru, and Tanzania. The CBA projects prioritise women's empowerment; emphasise sustainable, resilient agriculture practices, access to water resources, and more transparent and participatory water governance; and prioritise indigenous peoples and marginalised communities. The challenge climate change poses to eradicating extreme poverty requires that donors, governments, and NGOs take a more holistic look at the lives of poor people, at the social, economic, and political context in which they make decisions, and begin to reflect that holistic approach in our plans, programs, and priorities.

Case Study: Community Based Adaptation (CBA) project in Tanzania

The research communities in Tanzania, which rely on rain-fed agriculture, identified drought as a major hazard to household livelihoods, and rainfall already negatively affects food production 'a lot' for more than 80 percent of households. To enhance their resilience communities decided to work with CARE to increase their understanding of the impacts of climate variability, especially on water resources, to enable informed choices in an increasingly unpredictable world. The CBA project aims to create a more equitable and informed water resource management system through the creation of Learning and Practice Alliance (LPA) teams, which engage key stakeholders in identifying practical solutions and advocating for change. By engaging government, civil society organisations, NGOs, researchers and the community, the goal of LPAs is to capitalise on the existing skills and experiences of different actors.

This discussion platform will focus on:

Gender

Through a gender-transformative approach, the project aims to guarantee recognition of women's and girls' needs. A climate vulnerability and capacity assessment (CVCA) synthesised knowledge of indigenous and other adaptive water resource management strategies in agriculture, particularly those that address the needs of climate-vulnerable and marginalised women. Women's participation in LPAs will be promoted to enable them to engage key stakeholders and influence local water management.

Governance

Communities will develop a climate adaptation plan and budget and advocate for its inclusion in annual development planning at community and district levels.

Capacity Building

Water User Associations (WUA) will be equipped with an innovative hydro-meteorological information system and trained to take measurements and analyse and share data with the district weather forecast committee and Tanzania Meteorological Agency (TMA). WUAs will be prompted to secure weather forecast information from TMA and other reliable sources to promote informed decisions related to water allocation. Demonstration plots and farmer field schools will be used to disseminate information and learning on adaptive water resource management techniques for agriculture, including those identified in the CVCA.

Equitable
Access
to Water

Adaptation alone is not enough. UNFCCC Parties must act with greater ambition and urgency to address the climate crisis.

URGENT ACTION: POLICY CHANGE

Meeting the challenges of climate change and empowering vulnerable communities to make informed decisions requires action by national and local governments, in developed and developing countries.

CARE International calls on Parties to the UNFCCC to act now to:

- **Urgently and drastically reduce greenhouse gas emissions** in line with the latest science. Developed countries must increase their pre-2020 mitigation commitments in Warsaw and set ambitious post-2020 emission reduction targets by the 2014 Climate Summit. Parties must also indicate how they will meet these targets. Developing countries must have access to financial and technical support in order to contribute to global mitigation efforts.
- **Prioritise and increase new and additional financing for adaptation** in developing countries. At COP19, developed countries must announce 2013-2015 finance commitments, toward a global target of \$60 billion in public finance, and must agree on a roadmap to mobilise \$100 billion a year by 2020. At least 50 percent of public finance must go to adaptation, and immediate and substantial pledges are needed for the Green Climate Fund, Adaptation Fund, and the Least Developed Countries Fund. Additional funding will be required to address loss and damage.

- **Prioritise the most vulnerable populations and integrate gender in efforts to tackle climate change.** From the Green Climate Fund and a loss and damage mechanism to institutional arrangements and adaptation efforts, actions to address climate change must promote social justice and advance gender equality and women's empowerment. Vulnerable populations must be prioritised and empowered to participate in key planning processes, like the NAPs process.
- **Give particular attention to the impacts of climate change on food and nutrition security and smallholder agriculture.** The impacts of climate change on food and nutrition security warrant particular attention under the Nairobi Work Programme. COP19 decisions must recognise the paramount importance of food security and adaptation for smallholder farmers and food insecure populations and promote improved, sustainable agriculture techniques. Efforts to support smallholder agriculture must avoid shifting responsibility to smallholders for mitigation.
- **Ensure linkages with key global policy processes like the post-2015 Development Goals and the Hyogo Framework for Action.** Parties must recognise linkages among global processes to address climate change, sustainable development, and disaster risk reduction to ensure a coordinated response to global challenges and to leverage synergies between these agendas.