

# TOWARDS A TIPPING POINT? CLIMATE CHANGE, DISASTER RISK REDUCTION AND RESILIENCE IN SOUTHEAST MYANMAR

*This Briefing Paper summarizes a report on impacts and understandings of climate change, and local responses and adaptations, based primarily on the experiences of nine villages in southern Kayin/Karen State.*

JUNE 2020

## KEY MESSAGES

- + Myanmar bears little responsibility for the climate crises affecting the planet. Nevertheless, the country is highly vulnerable to climate-related hazards.
- + Between 1981-2010, daily maximum temperatures went up by 0.4°C and are expected to increase further by the middle of the century. Serious changes in rainfall patterns are also expected, with sea levels rising between 20-41 cm by the mid-21st century. Already, the monsoon duration shows a significant reduction.
- + Climate change particularly impacts the agricultural sector, which employs the majority of people in Myanmar. Hazards disproportionately affect the poorest and most vulnerable groups, such as conflict-affected people in Karen State who are increasingly exposed to floods and landslides, fire and droughts.
- + Climate change can be an opportunity (or “critical juncture”) to re-imagine the kind of world we live in, and struggle for transformations in state-society and power relations. ‘Building back better’ should include the transformation of social and political-economic relations, through supporting community and women’s leadership.
- + Local transformative capacity is strengthened when women take greater roles in Disaster Risk Reduction (DRR).
- + DRR activities should be decentralized, within a federal constitutional framework, as envisaged in the peace process.
- + In the immediate aftermath of disaster, local self-help and coping mechanisms are the most important elements of response. Strong community networks, based on ethno-linguistic and religious identities (‘social capital’), have sustained and supported absorptive capacities and foster social protection.
- + Climate Resilient Sustainable Agriculture, including adopting new crops (green beans) can be an effective adaptation in areas where climate change is negatively impacting rice cultivation.
- + Many of Myanmar’s remaining forested areas of biodiversity are located in areas controlled by the Karen National Union (KNU) and other EAOs, who should play key roles in climate change governance in Southeast Myanmar, as acknowledged in the Nationwide Ceasefire Agreement.
- + The capacities and resilience of individuals, families and communities described in this report will be fundamental elements of a sustainable, just and equitable recovery from the Covid-19 crisis. However, these responses and adaptations may not be enough to achieve long-term climate change resilience, particularly in the more disastrous climate change scenarios.
- + Some communities may reach a ‘tipping point’, beyond which local adaptation strategies no longer work. Particularly vulnerable are potentially marginalised subgroups such as women and people with disabilities.

# CLIMATE CHANGE IMPACTS, LOCAL RESPONSES AND ADAPTATION

## Kayin State government official:

*The rainy season is getting shorter - but the volume of rain is increasing.*

## From Focus Group Discussion:

*Because of river-bank landslides, there are less farmlands to cultivate and less spaces to live. In early rainy season and late rainy season there is less rain. In the mid rainy season there is lots of rain. Because of much rainwater, paddy can't be cultivated at the right time, and paddy yields are lower... the rice does not grow like before.*

Southeast Asia is one of the most severely climate change impacted and vulnerable parts of the world. Between 1997-2016, about 55% of climate-related disaster deaths in Asia occurred in four countries, including Myanmar.

Storms contribute yearly to massive displacement within Myanmar, and cross-border migration into Thailand, Bangladesh, Malaysia and China. In 2008 Cyclone Nargis killed up to 200,000 people, mostly in coastal parts of the Ayeyarwady Delta, and displaced some 800,000 individuals.

It is often difficult to differentiate understandings of and responses to climate change from related issues of livelihoods, and long-standing patterns of conflict and migration. If the communities featured in this report are unable to adapt and respond effectively to climate change, and achieve at least minimum levels of human security, this is likely to drive further migration (albeit with options limited due to the Covid-19 pandemic).

Climate change and other hazards disproportionately affect the poorest and most vulnerable, with the agricultural sector particularly exposed to hazards. Agriculture accounts for 37.8% of Myanmar's GDP, and



Harvesting areas of Myapadaingnaing village. Kawkareik Township, Kayin State.

employs 70% of its labour force. Current agricultural practices and policies do not prepare or support smallholder farmers to face the challenges of climate change. With limited savings and often high debts, many smallholders cannot afford to maximize the utilization of land, causing exposure to vulnerable climatic and financial conditions. This means that a season of poor yield constitutes a significant financial and existential challenge.

In the immediate aftermath of disaster, local self-help and coping mechanisms are the most important elements of response. External actors usually only arrive on the scene some time later. Key elements in response include the quality of individual local leaders; the availability of relief items, and other resources; and village leader, families and individuals' engagement in networks of information and distribution. Access to news and relief items is structured in part through relationships embedded in ethno-linguistic and religious (Buddhist) networks. Also important are relationships of solidarity, patronage and protection with government and/or EAOs. Effective local leaders need to have good connections to (potential) patrons, and protectors - whether government officials, local businesspeople, NGOs or armed groups

## THE RESILIENCE FRAMEWORK

The research adopted a holistic conceptual framework of 'Resilience': the ability to withstand shocks and cope with crises. Effective responses depend on stakeholders' capacities to absorb shocks and adapt livelihood and coping strategies, and to transform the often-inequitable power relationships which structure vulnerability and marginalisation.

Strong community networks, based on ethno-linguistic and religious identities ('social capital'), have sustained and supported absorptive capacities and foster social protection, despite the increasing severity of hazards. Indigenous Buddhist networks provide both psychological and spiritual care, and material protection and support. Villagers and researchers were keen to point out the importance of Buddhism and Karen identity in mobilising community self-help. Many also mentioned the roles of monks in providing shelter during disasters, and distributing donations from the laity.

The report describes and analyses examples of Community-based Adaptation and Community-based Disaster-Risk Reduction. Informants reported examples of Climate Resilient Sustainable Agriculture (CRSA), including adopting new crops (green beans) in areas

where climate change is negatively impacting rice cultivation. It could be valuable to learn from these experiences, and share local knowledge with other vulnerable communities in Myanmar. Further research is required, in order to build on local farmers' wisdom, in combination with the insights of agricultural sciences.

Local transformative capacity is strengthened when women take greater roles in Disaster Risk Reduction (DRR). Some women report being empowered through experiences opportunities gained as migrant workers in neighbouring Thailand. Nevertheless, women and other marginalised groups remain especially vulnerable to the impacts of climate change, and often suffer disproportionately from disasters (including the coronavirus pandemic).

With better training and resources, more systematic and effective responses could be implemented. There are possibilities of enhanced cooperation between government and the KNU to address climate change in remote and conflict-affected areas. The report describes some examples of collaboration between these two authorities on flood relief activities.

However, these responses and adaptations will not be enough to achieve long-term climate change resilience. Although these nine villages are coping at present, they may struggle in the future - particularly in the more disastrous climate change scenarios, which just a few years ago were at the extreme end of projections, but now seem more likely. Loss and damage as a result of climate change occurs not only because of limited capacities for absorption and adaptation (i.e. because coping capacities are being exhausted), but also due to the increasingly severe and unpredictable nature of hazards. Some communities may reach a 'tipping point', beyond which local adaptation strategies no longer work. Particularly vulnerable are potentially marginalised subgroups such as women and people with disabilities.

The majority of community perspectives on climate change and DRR reported here focus on the immediate aftermath of disaster. This partly reflects the specifics of the research location, which has experienced widespread flooding in recent years. The emphasis on local disaster response differs from most literatures and policy responses regarding climate change in Myanmar, which tend to focus more on longer-term adaptations. Climate Resilient Sustainable Agriculture (CRSA) can be a bridge between these different perspectives.



**Flooding in Kawkareik township,  
Kayin State, August 2019**

## GOVERNANCE ISSUES

Myanmar has key (albeit rather top-down) DRR and CCA policies in place. However, implementation is patchy and inconsistent. Local authorities, including the State government in cooperation with the KNU, need the right tools and resources to implement and amend these strategies. Moreover, linkages between DRR and CCA should also be strengthened, and understood as complimentary approaches to supporting community resilience.

Historically, these mostly Karen (or Kayin) communities have experienced widespread and systematic human rights abuses, in the context of armed conflicts between the government and the KNU. Although the Myanmar government and Army and the KNU agreed a ceasefire in 2012, the peace process has yet to resolve underlying issues driving decades of armed conflict. Many individuals and communities remain traumatised.

The research was undertaken in an area of “mixed administration” where following the ceasefire both the Myanmar government and Army and the KNU exercise varying degrees of control, extract resources from communities, and provide services such as health

and education. Within the KNU, responsibility for climate change issues rests with the Departments for Agriculture and Forestry, and the KNU Environmental Protection Committee. The KNU Land Policy promotes traditional community conservation, within a framework of federalism and self-determination in relation to natural resource governance.

Many of Myanmar’s remaining forested areas of biodiversity are located in areas controlled by the KNU and other EAOs. Given the crucial role of such natural resources in mitigating climate change, and providing local resources for adaptation, the KNU should play a key role in climate change governance in Southeast Myanmar, as acknowledged in the Nationwide Ceasefire Agreement (Union of Myanmar 2015, NCA, Article 25). However, Myanmar’s existing climate change responses and architecture tend to be top-down and technocratic, with only limited consultation of local stakeholders. This centralised and state-centric approach reflects Myanmar’s authoritarian political cultures, and the historical marginalisation of ethnic nationality communities.

# GAME CHANGERS

The combination of climate change and the Covid-19 pandemic may constitute a disaster which stretches local coping mechanisms beyond the limits of resilience. As well as the immediate public health impacts, in the longer term livelihoods are likely to be negatively affected by a reduction in remittances from migrant workers in (or returning from) Thailand, together with reduced farm-gate prices for agricultural products and severely disrupted supply chains, resulting in fewer opportunities for day labour.

## Key Informant Interview:

*Women migrate mostly to Thailand because back home there is poor production, no market to sell, and increased debts. Migrant women gain experiences relating to health, skills and perspectives and apply back in villages.*

The capacities and resilience of individuals, families and communities described in this report will be fundamental elements of a sustainable, just and equitable recovery from the Covid-19 crisis. Without significant help however, communities may experience difficulties in coping.

Especially post-coronavirus, future funding for humanitarian and development aid globally is uncertain. It is therefore more than ever important to support local agency and social capital as part of “building back better” after disasters. The capacities and networks described in this report may prove to be the future of disaster response in a post-aid world.

Climate change can be an opportunity (or “critical juncture”) to re-imagine the kind of world we live in, and negotiate and struggle for transformations in state-society and power relations. The disruptions caused by climate hazards, and the opportunities presented in responding, potentially allow vulnerable and marginalised communities to participate more equitably in development processes, through adaptive technologies and innovative approaches. Building back better should include the transformation of social and political-economic relations, through supporting community and women’s leadership. There is also a strong argument for decentralisation of DRR activities, within a federal constitutional framework, as envisaged in the peace process.

Longer-term, under the more alarming range of possible climate change scenarios, radical thinking and action are needed regarding the prospects of “deep adaptation” in Myanmar. What major changes are needed in order to survive large-scale future climate hazards (including potentially the collapse of food security)?

If the state of Myanmar is disrupted by climate change-related crises, EAO governance authorities and service providers will have crucial roles to play. It will be important to support and encourage them to act in ways which promote and protect the rights of all people, particularly marginalised and vulnerable groups.

# KEY RECOMMENDATIONS

How can vulnerable communities (particularly women) can be supported in adapting to climate change hazards in an equitable and transformative manner?

## PRIORITY RECOMMENDATIONS FROM THE COMMUNITY

### DISASTER PREPAREDNESS AND SHORT-TERM EMERGENCY SUPPORT:

- + Provide safe shelter; better weather information through radio and social media, including in local languages; pre-position relief supplies.
- + Establish quick-access emergency funds, including for government to work jointly with CSOs and EAOs.

### INFRASTRUCTURE AND OTHER LONGER-TERM RECOVERY NEEDS [“BUILD BACK BETTER”]:

- + Re-construct roads and bridges; re-build and maintain riverbanks; re-plant and maintain community forests.
- + Involve community leaders, including women, in planning and implementation of recovery projects.

### AWARENESS-RAISING, PUBLIC EDUCATION AND OTHER LONG-TERM ADAPTATIONS:

- + Support communities to identify and adapt/adopt new crops and/or varieties, based on farmers’ traditional knowledge; provide technical inputs and materials for agricultural adaptation; Farmer Field Schools to learn from and share with peers.

### CLIMATE CHANGE AND ENVIRONMENT EDUCATION:

- + Community members and CSOs can collect oral histories and narratives, sharing their experiences and adaptations - ‘appreciative enquiry’ case studies can be shared with communities elsewhere in Myanmar.

### LOCAL LEADERSHIP:

- + Authorities (government and EAOs) should formally recognize and support local leadership/committees, including women, in advance of hazard onset.

## RECOMMENDATIONS TO LOCAL AUTHORITIES - GOVERNMENT AND EAOS

- + Union-level government should explicitly authorise State/Region government departments to cooperate with EAOs in disaster response and rehabilitation activities, as envisaged under the NCA (Article 25). Union-level government and EAO leaders should establish a framework for DRR coordination, enabling local and other government units (including Districts and Township EAO authorities) to work with the private sector to achieve targets. In the longer term, decentralisation of decision-making and control over natural resources should be formalized through federal political arrangements.
- + Commission community-level mapping, to discover local resources and wisdom regarding climate change-adapted seeds and crops; work with national and international experts to identify appropriate seeds and agricultural techniques suitable for adoption and adaptation, based where possible on local knowledge and varieties.

## RECOMMENDATIONS TO INTERNATIONAL AGENCIES AND DONORS

- + Myanmar national aid agency staff should speak local (ethnic) languages.
- + Promote Agroecology and Climate Resilient Sustainable Agriculture by investigating and supporting local knowledge and climate change adapted seeds.
- + Advocate for implementation of the NCA (Article 25) in relation to action on climate change.

# Acknowledgements

ActionAid Myanmar thanks Ashley South, lead researcher and report author, as well as the co-author Lilliana Demartini.

ActionAid Myanmar and the authors thank Thramu HS and the AAM Fellows Network (ahlin pan: “Flowers of Light”) for helping to develop the interview questions, and undertaking much of the primary research, and triangulation of findings. Many thanks also to the research informants, including government, KNU and DKBA officials.

Special thanks to Mariana Cifuentes, Florence Pichon, Thant Myint U, Jakob Thomson, Alan Smith, Charles Petrie and Matt Maguire for valuable input and comments, and to Stuart Le Marseny. Many thanks to Micheal Woods for copy-editing.

This briefing paper and research was made possible through the funding provided by Prudence Foundation. The opinions expressed in this report are solely responsible of the authors and do not reflect those of the funder.

## About ActionAid

ActionAid is a feminist organization that uses a human rights-based approach to ensure that the voices of the most vulnerable, particularly women and youth, are heard. ActionAid is working with communities across the world to develop solutions that help people adapt to climate change impacts, and build resilience.

Since 2013, ActionAid Myanmar (AAM) has been implementing programmes in the southeast of Myanmar through its Fellowship approach. Many AAM Fellows have been long embedded in the research villages accessed for this study.

The ActionAid logo consists of the word "actionaid" in a white, lowercase, sans-serif font, set against a solid red rectangular background.

No. (1), Win Ga Bar Road  
Shwe Gone Daing, Bahan Township  
Yangon, Myanmar

Tel: +95 1546671

+95 8603142

Fax: +95 1 546671 (Ext:236)

Email: [aa.myanmar@actionaid.org](mailto:aa.myanmar@actionaid.org)

Web: <https://myanmar.actionaid.org>

## About Prudence Foundation

Prudence Foundation is the community investment arm of Prudential in Asia and Africa. Its mission is to secure the future of communities by enhancing education, health and safety. The Foundation runs regional programmes as well as local programmes in partnership with NGOs, governments and the private sector in order to maximise the impact of its efforts. Prudence Foundation leverages Prudential's long term mindset and geographical scale to make communities safer, more secure and more resilient. The Foundation is a Hong Kong registered charitable entity.

For more information please visit:

<http://www.prudencefoundation.com>



**ACCESS TO FULL REPORT** 