

## OVERVIEW

### IIED Human Settlements Group

**Project name:**

Documentation and research for learning from ACCCRN

**Project leader:**

Diane Archer

**Time frame:**

January 2012–September 2015

**Budget:**

US\$2,000,000

**Objective:**

Support local institutions, researchers, practitioners and other stakeholders to build a significant and influential body of knowledge and evidence of practice for developing urban climate change resilience in Asian cities.

## PROJECT SUMMARY

We need more knowledge on how to build resilience to climate change in urban centres – the economic, social and cultural hubs that house over 50 per cent of the world's population. As a partner in the Asian Cities Climate Change Resilience Network (ACCCRN), IIED has engaged with local researchers and practitioners in India, Indonesia, Thailand and Vietnam to produce studies that fill evidence gaps. We've published 11 working papers and 3 policy briefings in the Asian Cities Climate Resilience series, with several more in preparation. This research initiative complements ACCCRN's city-level project implementation and capacity-building processes to strengthen understanding of urban resilience.

## CHANGE IN ACTION

To support replication and scaling up of successful approaches for urban climate change resilience, practitioners must have documentation and evidence to justify policies and projects. Studies describing urban resilience initiatives will allow other cities to learn from these experiences. The working papers also highlight local priorities that could inform policy directions. In the publications, authors emphasise that building resilient cities

# Capturing complexities of urban resilience

## Studies from Asian cities highlight links between climate resilience, socioeconomics and governance

In the monsoon season, Mahewa Ward in the city of Gorakhpur, India, can become a kind of urban swamp. Heavy rains collect in the streets, and in past years the water has stagnated for months at a time. "I used to face problems in commuting outside," says resident Anuradha Devi. "I used to lift my sari and cover my face and wade through the dirty waters."

Climate change is expected to bring more downpours and floods to this low-lying area – but the reasons for the waterlogging go beyond climate or geography. The ward's vulnerability arises from an intricate urban system where physical factors overlap with tightly linked issues of infrastructure development, socioeconomic patterns and governance. A vulnerability assessment carried out as part of an Asian Cities Climate Change Resilience Network (ACCCRN) initiative sketched a web of interconnected problems: flooding was worsened by choked drains, a result of garbage dumped in the streets, which in turn related to inadequate municipal services and apathy among marginalised community members who saw no way to change the situation.

### Working with complex systems

Most fast-growing cities have these kinds of multi-layered vulnerabilities. In partnership with ACCCRN, IIED is backing a series of small-scale research projects to unpick the complexity of climate change resilience in urban environments. Case studies by local

experts in India, Indonesia, Thailand and Vietnam have documented experiences from ACCCRN initiatives like the one in Gorakhpur, or gathered new data to fill evidence gaps. A study in Da Nang, Vietnam, for example, looked at how the health impacts of heat stress relate to the economic and social insecurity of migrant workers; another project worked with local planners in Indonesia to assess their perspective on climate change. Besides funding these studies, we've helped the researchers connect to international colleagues and to local NGOs working with climate-related issues on the ground.

This programme of research and documentation aims to deepen understanding of how Asian cities can incorporate climate resilience into their development plans. The Asian Cities Climate Resilience working papers – 11 published so far, with at least 7 more to come – will help build a body of knowledge and good practices, and give voice to vulnerable people in places like Gorakhpur and Da Nang. Many studies highlight potential solutions, such as an analysis of people's willingness to pay for flood risk insurance in Vietnam and a review of different approaches to developing City Resilience Strategies in municipalities across India.

### International collaboration

Partnerships and international support have been key to making the research more effective and influential. The research team examining heat stress in Da Nang, for instance, included a public

requires recognising and acting upon the needs of those most vulnerable to climate change impacts.

By supporting researchers in Asian cities and linking them with partners and colleagues, we hope to raise their capacity to contribute to local, national and international understanding of the process of building resilience in urban areas. Support from this programme should help them continue to document and assist in projects and policymaking. Such documentation and research can guide and catalyse the appropriate responses from stakeholders at all levels.

## KEY LESSONS LEARNT & INNOVATIONS

- Climate change adaptation in cities requires strengthening urban governance, addressing the underlying drivers of vulnerability, and building on past approaches to develop resilience. Research helps with all of these.
- Small research projects can start to untangle complex risks and weaknesses in urban areas — and help the voices of the most vulnerable be heard.
- Local researchers benefit from collaborating with NGOs for more targeted research. One-on-one support from international colleagues also helps local experts to better position their studies in global contexts.

## PARTNERS' VIEW

*My participation in research on urban resilience through the IIED research network has offered a lot, including opportunities to broaden my research. It has allowed me to contribute to policy development processes to enhance urban community resilience through effective responses to climate change impacts, and to share my experiences as a local government official in remote coastal areas of eastern Indonesia.*

Rahayu Yoseph-Paulus  
Senior planner in Buton Regency, Indonesia

## FURTHER READING

[www.iied.org/strengthening-knowledge-urban-climate-resilience-asian-cities-climate-change-resilience-network](http://www.iied.org/strengthening-knowledge-urban-climate-resilience-asian-cities-climate-change-resilience-network)

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Photo: Nic Dunlop/The Rockefeller Foundation

Studies of climate vulnerability in places like the city of Gorakhpur in India are helping to build a body of knowledge and good practices.

health professor from Hanoi Medical University; several staff from COHED, a Vietnamese development NGO; and another NGO staffer from the climate-focused organisation Challenge to Change. They were advised by experts on climate change and health from the University of East Anglia and the University of Cambridge, who provided access to related literature, reviewed the study design and gave feedback on drafts.

Similar collaborations were set up for other research projects. The expert advisors offer an international perspective to ensure that the final papers fit into wider dialogues and debates. NGO partners, on the other hand, often understand the local governance landscape and can translate the results into action: in Vietnam, COHED used the study on heat-stress vulnerability to secure funds for an awareness-raising project. Together, all these relationships help researchers identify useful questions and influence change.

## Beyond 'big' solutions

Though all the studies focused on specific local contexts, some themes have emerged that are globally relevant. Notably, the findings emphasise the importance of considering various components of resilience — from governance to disaster preparedness to health to housing — alongside more typical responses such as large infrastructure projects. Improving basic service provision, whether drains, energy or healthcare, can be essential to building resilience, as is developing effective institutions to assess and address problems. Research in Indonesia has pointed out ways to strengthen planning at city, regional and provincial levels, such as by raising climate change awareness and coordinating the efforts of government and NGOs. The study from Gorakhpur complements this with a case

of 'micro-resilience planning' implemented through ACCCRN, in which the Gorakhpur Environmental Action Group, a local NGO, helped citizens from Mahewa Ward form a grassroots governance system. Community members developed and funded their own initiatives for better drainage and garbage disposal, which reduced flooding and also gained respect from city officials who had previously neglected the ward.

We need researchers to keep filling gaps in understanding and making the connections among different dimensions of urban climate change resilience. IIED is continuing to commission research on relevant themes, including further exploration of effective urban governance and better sanitation systems in cities.

At the same time, we are trying to support communities of practice in the countries where studies have been carried out. We want to link researchers and their findings to practitioners, policymakers and existing networks for urban climate resilience in ACCCRN countries. Through such links, results from a relatively small number of case studies may be able to catalyse and guide responses in many more cities.



## Knowledge Products

The International Institute for Environment and Development (IIED) promotes sustainable development, linking local priorities to global challenges. We support some of the world's most vulnerable people to strengthen their voice in decision making.