

Climate and Development Outlook

Stories of change from CDKN



September 2014

Climate and Development Knowledge Network

Helping developing countries to design and deliver climate compatible development

India Special Edition

A MODEL FOR TACKLING EXTREME HEAT IN AHMEDABAD

Ahmedabad in Gujarat State is a booming city, and labourers, masons and other building professionals are in high demand. Even during the summer months when average temperatures are more than 38°C, they are engaged in heavy labour outside. A survey by the Natural Resources Defense Council (NRDC) and the Indian Institute of Public Health in 2011 of 100 workers in different sites showed that heat affects them in different ways. An average of 11 work days a year were lost due to extreme heat, having a significant impact on workers' income. Some 10% were hospitalised with heat stroke at least once during the summer months. Other groups working outside, such as police and traffic officers, and residents of slums living in unsuitable housing are similarly vulnerable to the health impacts of extreme heat. In 2010, a heat wave saw temperatures reach 46.8°C and hundreds of these vulnerable people lost their lives.

CDKN supported an intense process of research and engagement to collect evidence and make the case that extreme heat is a climate-related disaster. This put the issue on the agenda of the municipal corporation (AMC) and further technical support led to the government taking action. In April 2013 the AMC was the first city corporation in South Asia to launch a Heat Action Plan to put in place a comprehensive early warning system and preparedness plan for extreme heat waves.

“Our Heat Action Plan provides the road map we need to save lives when the next dangerous heat wave hits.”

SHRI MAYOR ASIT VORA

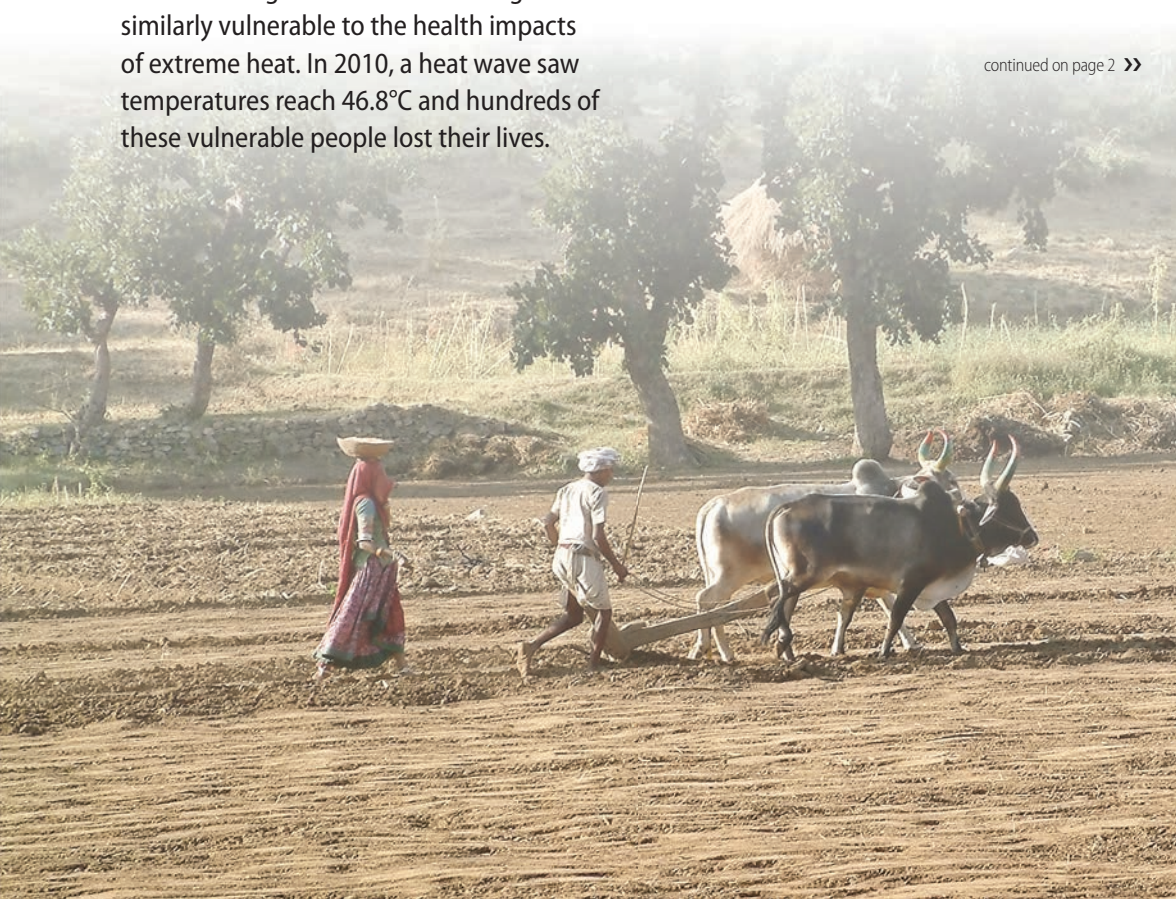
continued on page 2 >>

India's climate and development

India is the second most populous country in the world, with 1.2 billion people. Many of the 29 states have populations equivalent to entire countries elsewhere. It is home to one third of the world's poorest people, and faces a complicated and interrelated set of climate compatible development challenges.

India is a middle-income country with a current GDP growth rate of 5.7%, but 400 million people remain under the poverty line according to the World Bank. Over half of the population depend on agriculture for their livelihoods, but productivity is being affected by changing temperatures and erratic rainfall. Natural disasters are becoming more and more destructive and harmful – for example, the 2013 floods in Uttarakhand resulted in an estimated 5,500 deaths. This devastation has been repeated in 2014, with tragic floods in Kashmir and elsewhere in India.

CDKN's programme in India is researching and piloting new approaches to climate compatible development in partnership with states, districts and cities. These become models for how to plan and implement development policies that consider the current and future risk and uncertainty of climate change and natural disasters. CDKN then explores different avenues for adapting, replicating and scaling-up these approaches elsewhere in India, and facilitates learning among India and other countries.



>> continued from page 1

Outreach on IPCC's Fifth Assessment Report

CDKN brought together India's leading scientists and IPCC authors to discuss the implications of the latest report (AR5) for growth and development in India. In August 2014 a series of outreach events took place in Delhi, including an interaction with young scientists, a journalist training session and a public event that saw two Government of India ministers joined by representatives from the private sector, state and national officials, and civil society. Find CDKN's guide to the IPCC's AR5 and communications toolkit on www.cdkn.org/ar5-toolkit

Supporting scaling-up of disaster micro-insurance

CDKN's knowledge networks are helping promote interest in a successful disaster micro-insurance scheme that was piloted by the All-India Disaster Mitigation Institute (AIDMI) under an earlier project. By documenting the value of this scheme in helping affected households, and particularly women, to rebuild their homes and livelihoods during last year's cyclone, CDKN and AIDMI have generated significant interest in scaling-up the scheme, including from the State Social Welfare Board in Odisha and partners in Tamil Nadu and Assam. CDKN has also helped showcase learning from the pilot initiative internationally, including at international conferences in Nepal and Ethiopia.

The city government has appointed a focal officer for managing heat wave preparedness and response, and is now investing in awareness and prevention measures to reduce the impact on human health. As temperatures in May 2014 again reached dangerous levels, a colour-coded alert-level system was successfully used by the city authorities to give warnings to all medical centres, emergency services and citizens (through press notes, emails and text messages). Take-home pamphlets to school children, billboards and LED temperature boards across the city have all helped increase awareness of how to protect against heat stroke. The government also opened up its gardens all day and night to provide a cool refuge for vulnerable citizens. In addition, plans are underway to convert black tar roofs of hospitals to china-tiled mosaic after the project showed the benefits of this measure in reducing indoor temperatures.

This project is already acting as a model for others to learn from and replicate. The Union Minister for Health and Family Welfare, Dr Harsh Vardhan, instructed other vulnerable states to follow Ahmedabad's lead on tackling extreme heat to protect against encephalitis and other health impacts of heat waves. International donors are also now supporting further research on the impact of extreme heat on health and how to manage it.

Over the next few years, CDKN will support other cities to adopt elements of the successful Ahmedabad model, as well as mainstreaming a focus on extreme heat within the Gujarat Government, and nationally. The partners will also attempt to quantify the impact the heat plan has had in Ahmedabad on the number of lives saved, and further institutionalise the action plan across departments of the city government.



GUEST COLUMN

Taking action on vulnerability in Uttarakhand

MR JAI RAJ, ADDL. PRINCIPAL CHIEF CONSERVATOR OF FORESTS (ENVIRONMENT), GOVERNMENT OF UTTARAKHAND

In 2013, Uttarakhand witnessed a tragic reminder of the destructive power of natural disasters. Unprecedented rainfall between 15 and 17 June triggered landslides which cost 580 human lives, with 5,400 persons missing and millions of people affected in the state. The efforts of the government, the army and individuals to restore connectivity and rebuild lives and livelihoods were commendable. However, it also taught us an important lesson: we have to be better prepared for such disasters, and our development pathway must

reduce and manage the risk of such a disaster happening again.

The Intergovernmental Panel on Climate Change’s (IPCC) *Fifth Assessment Report* (AR5) tells us that as a result of our changing climate, we should expect natural disasters to happen with more frequency in the future, and be more destructive. In Uttarakhand, climate change is not just about disasters, but also about slow incremental changes to temperature and rainfall patterns that adversely affect our agrarian economy.

In the Uttarakhand State Action Plan on Climate Change, the state government has laid out the vision to convert this “risk into an opportunity”. It lays out the overall modality for tackling climate change as part of the state’s development objectives. For example, over 71% of the land is under forest cover, and preserving this will bring climate mitigation benefits for the whole of India. Each department has identified a long list of potential adaptation and mitigation actions it could take. For the first time the state has brought together in one document all its current and potential measures for tackling climate

change. Crucially, the gender dimension of development and climate change has also been considered throughout.

Implementation of the plan is a priority for the state. However, there are a number of steps that need to happen to facilitate this. For example, CDKN is supporting a comprehensive Climate Change Vulnerability and Risk Assessment for the state, which will deliver a refined, prioritised and detailed list of adaptation and mitigation actions within the plan. By carrying out the assessment in partnership with the relevant line departments and interested stakeholders, their ownership over the agreed upon actions will be enhanced.

Building the state’s resilience to climate change and natural disasters is a priority for the government. Partnerships with local and international experts provide important technical and scientific inputs into the government’s planning process to support this. I believe our efforts to put science at the forefront of our decision-making process is laying the foundations for a new and improved approach to climate change and development planning.





PLANNING FOR CLIMATE-RELATED DISASTERS IN INDIA'S DISTRICTS

For nearly a decade it has been mandatory for every district in India to develop an annual District Disaster Management Plan (DDMP). However, where such plans have been developed there are significant challenges and limitations in terms of both process and output. Disaster management is still primarily understood as post-disaster relief and reconstruction, rather than risk reduction and wider resilience building. Integrating climate change considerations into disaster management planning remains a challenge, partly due to institutions working in silos.

A new approach to effective district-level disaster management has been demonstrated in Gorakhpur, Uttar Pradesh. With CDKN support,

a local team from the Institute for Social and Environmental Transition (ISET) International and Gorakhpur Environmental Action Group (GEAG) has built the capacity of the line departments and the District Disaster Management Authority

“Line departments should be in the driving seat during the DDMP planning process as they hold the budget and authority to implement actions on the ground. But in reality it is usually left to the District Disaster Management Authority (DDMA) to develop the plan, which as a result is rarely implemented.”

**SHIRAZ WAJIH, PRESIDENT,
GORAKHPUR ENVIRONMENTAL
ACTION GROUP (GEAG)**

(DDMA), by providing evidence and technical inputs, to understand why and how to integrate climate change considerations into disaster management actions. This was a catalyst for the DDMA to facilitate a multi-sectoral participatory planning process that led to a 2013 DDMP that was truly ‘climate compatible’. This annual planning process was repeated in 2014 without any external support.

Gorakhpur has become a model district in bottom-up, integrated planning for disaster management. The state government has written to all 75 districts in the state directing them to follow the process taken by Gorakhpur. The approach has also been written up as a training module, which the National Institute of Disaster Management (NIDM) is now using to train disaster management officials across the country.

Resources:

On our website you can find:

- Inside Stories from some CDKN projects in India, including from Ahmedabad, Gorakhpur and the arid zones of Leh and Barmer
- Training modules on climate compatible construction for building professionals, artisans and policy-makers in three different ecological zones in India
- AR5 tool-kit ‘What’s in it for South Asia?’
- CDKN documentary film on the gender dimension of climate change in India

Looking ahead: Reflections from CDKN's Senior India Advisor, Mihir Bhatt

For India, equitable and inclusive growth is the priority. This can happen simultaneously with tackling climate change. To be effective in the long term, our development plans need also to address the increasing risk of climate change and natural disasters.

There is leadership on climate compatible development emerging in states, districts and cities across India. From the Himalayan state of Uttarakhand to Madurai city in Tamil Nadu in the south, CDKN is supporting practical and replicable models for development planning that mainstreams climate change. These are tackling some of the most critical issues in India, such as the annual risk of monsoon flooding and the gender dimension of climate change.

Maximising and expanding this leadership is an exciting challenge. Moving forward we will be working with new partners, at the national and subnational levels, to see where and how the best of our work so far can be adapted and replicated elsewhere.



INTEGRATED MULTI-STAKEHOLDER URBAN PLANNING IN MADURAI

Madurai is a small city in Tamil Nadu, built around an intricate network of rivers, canals and other waterways. Like all urban areas in India, it is growing at a rapid rate and has a significant proportion of its population (25%) living in poverty in slum areas. This is putting stress on the water and sanitation systems in the city and many vital services are not working effectively. Tackling this development challenge is the priority for the municipal corporation (MMC). However, there is now an understanding that the city will also have to look at a broader set of risks, including those from climate change, to ensure investments truly build sustainability.

CDKN supported a year-long collaborative process, led by Atkins and the local NGO the Dhan Foundation, and involving government officials and stakeholders from different sectors and backgrounds, to explore different risks facing the city. This process piloted a 'future-proofing

cities' methodology and co-produced knowledge on three groups of interrelated risks and possible mitigation options: climate risks (e.g. flooding), resource and ecosystem risks (e.g. water scarcity), and energy use and carbon emissions (e.g. from transport).

In contrast to the usual top-down, expert-dominated way of priority- and strategy-setting, participatory cross-sectoral forms of decision-making were pioneered. For example, 'water walks' that brought together community members with the government and local organisations to focus on the lived experience of the degraded river corridor became a forum for delivery and resulted in many new ideas surfacing.

As a result of this new evidence on the risks facing the city, city officials and stakeholders were motivated to develop a 'future-proofing' action plan for the city, which demonstrates a new integrated climate change and development approach to urban development. With a focus on green-blue infrastructure (using parklands, planting schemes and



other land uses to channel and manage water effectively), the action plan puts building the resilience of the vulnerable slum community as the starting point, and identifies cross-sector interventions that will tackle three groups of interrelated risks. For example, to reduce the risk of flooding from rivers and surface water, a combination of actions is needed, including downstream infrastructure

improvements (e.g. separation of sewers and storm drains), upstream measures (e.g. improved rural soil erosion management) and capacity building (e.g. flood preparedness in slum communities). At the same time, city partnership-coordination structures have been designed which improve management and delivery of these cross-sectoral actions.



Authors: Elizabeth Gogoi and Mihir Bhatt

Design and layout: Green Ink (www.greenink.co.uk)

Photos: page 1: brytta/iStock; page 2: traveller1116/iStock; page 3: Nila Newsom/Shutterstock.com; page 4: Danielrao/iStock; page 5: hadynyah/iStock (left), CDKN (right); page 6: Dieter Telemans/Panos

This document is an output from a project commissioned through the Climate and Development Knowledge Network (CDKN). CDKN is a programme funded by the UK Department for International Development (DFID) and the Netherlands Directorate-General for International Cooperation (DGIS) for the benefit of developing countries. The views expressed and information contained in it are not necessarily those of or endorsed by DFID, DGIS or the entities managing the delivery of CDKN, which can accept no responsibility or liability for such views, completeness or accuracy of the information or for any reliance placed on them. This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, the entities managing the delivery of CDKN do not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

CDKN is led and administered by PricewaterhouseCoopers LLP. Management of the delivery of CDKN is undertaken by PricewaterhouseCoopers LLP, and an alliance of organisations including Fundación Futuro Latinoamericano, LEAD International, LEAD Pakistan, the Overseas Development Institute, and SouthSouthNorth.

The Climate and Development Knowledge Network (CDKN)

aims to help decision-makers in developing countries design and deliver climate compatible development. We do this by providing demand-led research and technical assistance, and channelling the best available knowledge on climate change and development to support policy processes at the country level. CDKN is managed by an alliance of six organisations that brings together a wide range of expertise and experience.

Sign up to CDKN's monthly e-newsletter and Roster of Experts on www.cdkn.org

CDKN Global

7 More London Riverside
London, SE1 2RT
+44 (0) 207 212 4111
www.cdkn.org
enquiries@cdkn.org

CDKN Asia

LEAD Pakistan
LEAD House
F-7 Markaz
Islamabad 44000
Pakistan
+92 51 2651511

India contact

Elizabeth Gogoi,
elizabeth.gogoi@cdkn.org

