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#### Nature Reports Climate Change

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# nature REPORTS climate change

the news behind the science, the science behind the news

## THINKING GLOBALLY, ACTING LOCALLY

With President Obama now settled in the Oval Office, the United States has entered a new period of engagement on climate change. In an inaugural speech that was unprecedented in its recognition of the world's woes, Obama promised to “restore science to its rightful place” and to “roll back the specter of a warming planet”.

The biggest challenge ahead for the US regarding climate change will be how to control its greenhouse gas emissions. But the US cannot afford to focus too narrowly on mitigation. It also needs to consider how to adapt to the inevitable — for although the atmosphere is a global resource and its health a collective responsibility, the impacts of climate change will be felt regionally.

Nowhere is this more evident than in Bangladesh. As a vast, flat delta, Bangladesh has a large population threatened by rising seas. Flooding is just one of a number of impacts already being felt there — among them dwindling water supplies, saltwater damage to crops, loss of biodiversity and the threat of fiercer storms tearing through the region.

To weather these changes, Bangladesh will need a gargantuan effort bolstering its infrastructure, as Mason Inman reports in this issue (page 18). The same is true for the United States, but there is a prevailing, arrogant assumption that rich nations will be better positioned to adapt to climate change. This is correct to some extent, given their greater access to technology and capital. But history has shown that without preparedness, even wealthy nations can do little to allay the damage from extreme events, whether or not they are attributed to climate change. Hurricane Katrina, which left almost 2,000 dead, is a case in point.

By implementing a national adaptation plan, the US can protect its citizens against the scale of devastation seen in New Orleans. With a team of committed climate experts on board, the Obama administration now has the means to begin work in this direction. Obama not only has chosen his people carefully, he has made firm his commitment to shoring up the nation's infrastructure over the next few years. “We will build the roads and bridges, the electric grids and digital lines that feed our commerce and bind us together,” he said in his 20 January address.

This provides a unique opportunity to develop a climate-resilient nation. But the challenge can be adequately met only with better knowledge of the changes to come. Here, climate science can adopt a new role. While science for the sake of curiosity should prevail, there is an emerging need for science that is ‘actionable’ and specifically of service to local and regional stakeholders, be they farmers (page 16), coastal planners or insurance companies (page 26).

And the United States is well-poised to lead. As ever on climate change, California is charging ahead, most recently in drafting an adaptation plan, due out in April. The nation as a whole would do well to follow in its footsteps.

OLIVE HEFFERNAN, EDITOR

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