

Science for Environment Policy

Ecosystem-based adaptation in the Caribbean: strengths and weaknesses

Protecting ecosystems and the services they provide is increasingly thought to be a sustainable and effective approach to help society adapt to climate change. Islands states, at risk from a variety of different threats, including sea level rise, changes in rainfall patterns and ocean acidification, have been among the first to trial this approach. A new study examines measures taken in the Caribbean and highlights the importance of integrating local and external knowledge.

Many small island states in the Caribbean rely on the services ecosystems provide. For example, the value of coral reefs in the region has been estimated at between US\$3.1 and 4.6 billion (€2.3-3.4 billion) for services such as fisheries, tourism and coastal protection. Preserving such ecosystems to help adapt to [climate change](#) is of particular importance for islands where local livelihoods may be threatened.

In this study, researchers show that at the regional level, although there is some coordination of ecosystem-based adaptation (EbA) between countries, there are not yet any coherent strategies or policies that have translated into ecosystem-based management on the ground. They also find that most attention at this scale is focused on coastal management, neglecting other ecosystems important to climate change adaptation, such as forested water catchments.

At the national level, the situation is improved, partly with support from other countries. For example, the EU has been working with the Planning Institute of Jamaica to help implement more ecosystem-focused approaches to watershed rehabilitation and coastal management. However, such projects do not specifically mention EbA and do not seek to incorporate local communities and knowledge.

Finally, at small, local scales some measures taken do show progress towards realised, ecosystem-based approaches, with acknowledgement of the need to include local knowledge. For example, local partners in Haiti and the charity BirdLife International have worked together to restore an area of degraded forest, stabilising slopes against landslides and ensuring water supply to local communities.

The researchers conclude that although some progress has been made in the Caribbean, improvements are needed. In particular, local knowledge has been largely ignored in projects and planning processes at the national and regional scales. This is an important omission because, as well as providing useful insight, incorporating local viewpoints can facilitate community-based management of adaptation measures, which has been shown to improve their success. Although the researchers acknowledge that local, traditional approaches must not be 'romanticised', they stress that their value should not be discounted.

Researchers recommend identifying 'local champions' which could help raise awareness and enthusiasm in local communities. They also caution that although the term 'ecosystem-based adaptation' is relatively new, there is a wealth of past research and data, especially within the conservation sector, which should be used in its implementation. Finally, they highlight the need for continued monitoring and evaluation.



19 March 2013
Thematic Issue
37: Ecosystem-based Adaptation

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Source: Mercer, J., Kelman, I., Alfthan, B. et al. (2012). Ecosystem-Based Adaptation to Climate Change in Caribbean Small Island Developing States: Integrating Local and External Knowledge. *Sustainability*. 4: 1908-1932.

DOI: 10.3390/su4081908.
This study is free to view at: www.mdpi.com/2071-1050/4/8/1908

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To cite this article/service: "Science for Environment Policy": European Commission DG Environment News Alert Service, edited by SCU, The University of the West of England, Bristol.