

Emerging Lessons from Across the Tropics on Climate Change Vulnerability Assessment and Adaptation Planning for Biodiversity

Ken Mwathe and Caroline Njoki

BirdLife International Africa Partnership Secretariat | P.O. Box 3502-00100 Nairobi, Kenya | E-mail: Ken.Mwathe@birdlife.org; njokizimmer@yahoo.com | web: www.birdlife.org

1 Background

- Tropical regions have high diversity of terrestrial and aquatic biodiversity yet threatened by climate change.
- Thus the approach to site, species and ecosystem conservation by practitioners has changed to incorporate climate change impacts.
- Moreover, vulnerability assessments are increasingly informing adaptation interventions (see graphic below).
- Examples and approaches of vulnerability assessments and adaptation planning for the tropics are limited and are therefore required.
- A survey of 23 projects from the tropics drawing lessons on climate change vulnerability and adaptation planning was conducted during a workshop in Villa de Leyva, Colombia in March 2012.
- The results of the survey also point to directions in vulnerability assessments, adaptation and priorities for future work.



School children plant trees at a forest in Kenya. Healthy ecosystems play a critical role in improving resilience © Nature Kenya

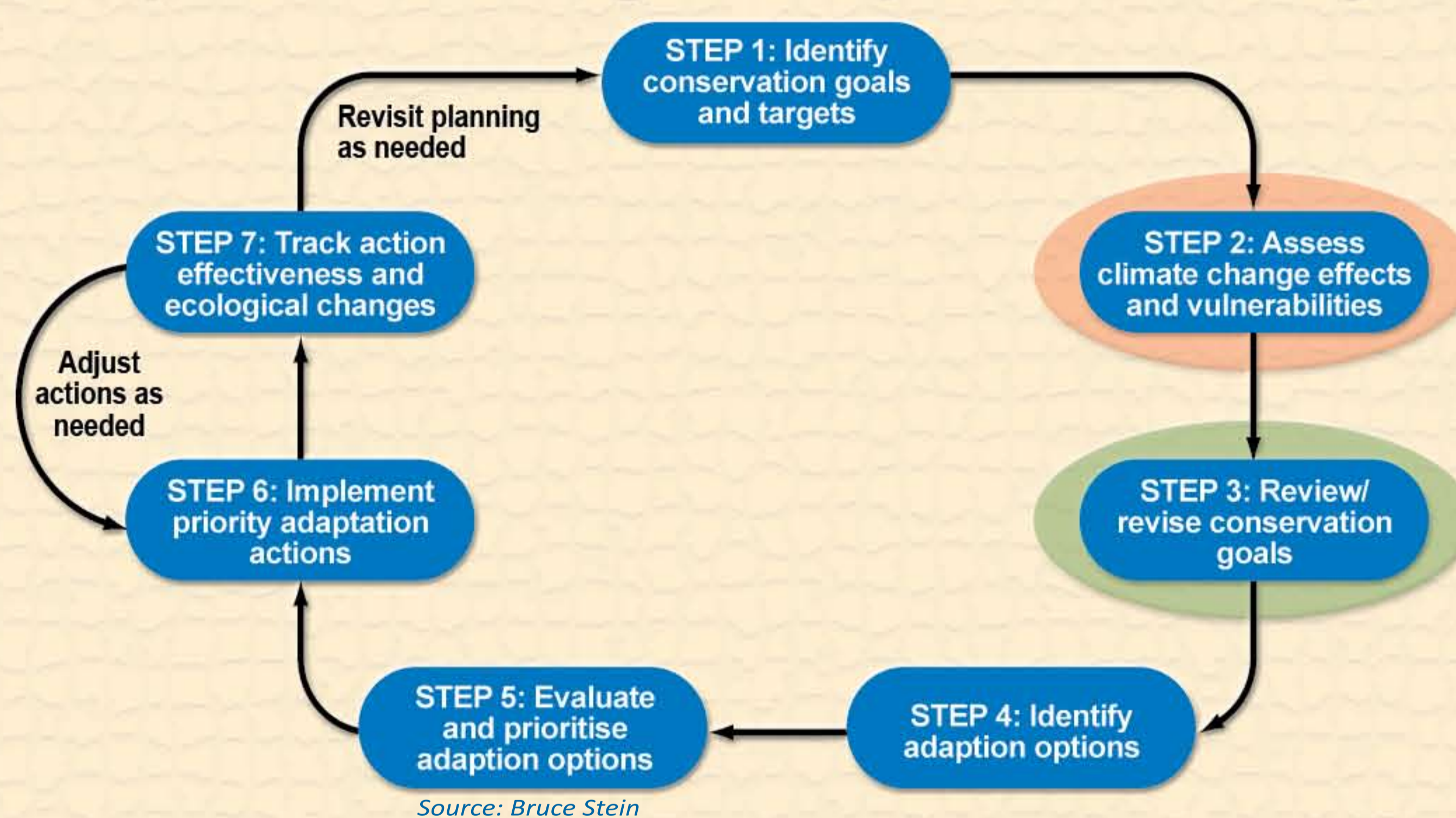
2 Key Lessons

13 lessons providing perspectives that resulted from the workshop are as below:

- Despite gaps in climate data and projections especially in the tropics, vulnerability assessments need minimum quality and quantity data.
- Vulnerability assessments should focus on both direct and indirect impacts of climate change on biodiversity.
- Vulnerability assessments available at local and national scale should be aggregated and scaled up to achieve regional and global scales. Conversely, assessments available at global and regional levels should be scaled down to national and local scales.
- Uncertainties should be quantified and communicated appropriately to various audiences including policy makers.
- Sustainable and cost effective methods of long term monitoring of relevant components of biodiversity and climate should be designed.
- Clear understanding of likely climate change impacts, guided by vulnerability assessment, before initiation of adaptation projects is required.

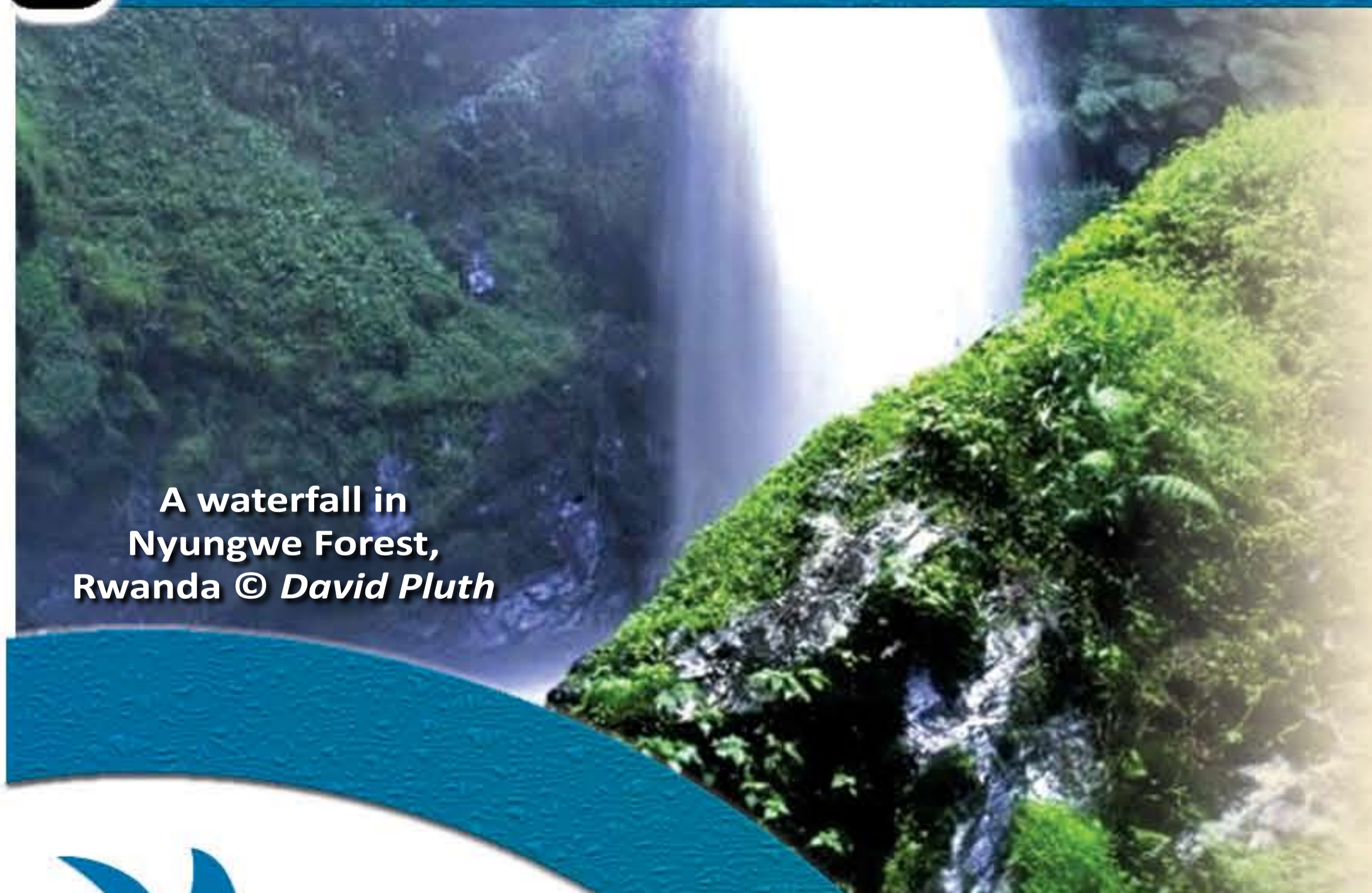
- There is need to prioritize on climate change response opportunities that deliver mitigation as well as adaptation.
- Implementation of adaptation actions begins immediately to address pressing threats identified in vulnerability assessments.
- Clear baseline that allows comparison of changes with control sites beyond the project areas should be established. This provides scenarios of what would have happened in the absence of intervention.
- Views of stakeholder's, e.g. local communities, likely to affect biodiversity and be affected by adaptation interventions, should be incorporated.

Adaptation Planning and Implementation Cycle



- Climate change plans across other sectors of society, incorporated for effective response.
- Capacity building for scientists, natural resources management agencies and local indigenous people is crucial.
- There is need to develop and implement a strategy for communicating climate change vulnerability assessment and adaptation plans.

3 Priorities for the Future



A waterfall in Nyungwe Forest, Rwanda © David Pluth

To guide future climate-conscious conservation efforts in the tropics, the following are key priorities:

- Conscious design of adaptation strategies to reduce threats posed by most important factors identified in a climate change vulnerability assessment.
- Vulnerability assessments could take long, therefore donor funding cycles should stretch long enough to accommodate this.
- Donors should allow time for monitoring of both climate change impacts and efficacy of management actions to address uncertainties and for success of interventions.
- High priority should be placed on efforts to increase capacity of conservation practitioners, local communities and decision makers.