

Submission by the World Resources Institute to the Nairobi Work Programme on good adaptation practices and lessons learned from national adaptation planning

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WRI has been involved with creating and piloting adaptation tools, informing adaptation policy and programming, and improving learning and knowledge management for adaptation in several ways. The information below briefly describes this array of work. We note where work specifically addresses the NWP focus areas of ecosystems, human settlements, water and health.

Tools and methods for adaptation planning processes

WRI has created the following tools and methods to assist adaptation planning, especially at the national level:

National Adaptive Capacity Framework

WRI's National Adaptive Capacity (NAC) Framework (<http://www.wri.org/publication/ready-or-not>) can help governments build institutional capacity specifically to incorporate adaptation planning and activities. This framework helps assess and analyze the strengths and weaknesses in institutions involved in adaptation planning, as well as identify the capacity gaps within institutions, so that those involved in adaptation planning processes can assess how institutions may or may not need to adjust to incorporate and support adaptation planning and build institutional capacity. It is cited in the UNFCCC NAP process guidelines as a useful framework for undertaking Element A of the NAP process, "Lay the Groundwork and Address Gaps." By identifying gaps and weaknesses, the NAC framework can help institutions develop performance indicators and metrics to evaluate and monitor institutional performance. Decision makers can use the NAC Framework to address key questions related to implementation, such as how adaptation work can be prioritized within institutions, and how technical and institutional capacities can be built, maintained, and enhanced for long term adaptation planning.

The framework is structured around five institutional functions important for adaptation:

- Assessment
- Prioritization
- Coordination
- Information management
- Climate risk management

Adaptation Options Analysis (some items specific to ecosystems)

WRI has developed an overview of methods that can be used to identify and assess adaptation options (<http://community.eldis.org/.5bce1db6>). We also produced a paper for USAID that considers the strengths and weaknesses of Multi-Criteria Analysis (<http://community.eldis.org/.5bce1db6>).

WRI staff has expertise in using participatory scenario development with a wide range of stakeholders to develop adaptation options and assess tradeoffs between options and scenarios, as well as identify options in the face of climate uncertainty. See examples of scenarios used in simulation exercises in Ghana and Vietnam (<http://www.wri.org/blog/ghana-and-vietnam-scenarios-foreshadow-how-decisions-climate-adaptation-are-made>), and the use of scenarios for identification of plausible futures

when there is uncertainty regarding levels of thermal stress that may affect the coastal ecosystem (<http://www.wri.org/our-work/project/coastal-capital-economic-valuation-coastal-ecosystems-caribbean>).

Aqueduct (specific to water, ecosystems)

WRI's Aqueduct Platform (<http://www.wri.org/our-work/project/aqueduct>) shows countries' and river basins' average exposure to five water risk indicators: baseline water stress, inter-annual variability, seasonal variability, flood occurrence, and drought severity. Risk exposure scores are available for every country (except Greenland and Antarctica), the 100 most populous river basins, and the 100 largest river basins by area. Scores are also available for all industrial, agricultural, and domestic users' average exposure to each indicator in each country and river basin. This data tool can help analyze climate vulnerabilities and risks, as well as identify areas of uncertainty that need to be factored into the NAP planning process. The Aqueduct projection maps are scheduled for updating before the end of 2014.

A range of global analyses done by WRI provide information (often in the form of maps) that may help inform adaptation planning processes without the need for new analysis. For example, we have global analyses on:

- Water Stress (<http://www.wri.org/blog/world%E2%80%99s-36-most-water-stressed-countries>);
- Physical and Economic Water Scarcity (<http://www.wri.org/resource/physical-and-economic-water-scarcity>);
- Change in Agricultural Output Potential 2000-2080 (<http://www.wri.org/resource/change-agricultural-output-potential-2000-2080>); and
- Capacity of Countries and Territories to Adapt to Reef Loss (<http://www.wri.org/resources/charts-graphs/capacity-reef-countries-and-territories-adapt-reef-loss>).

Natural Infrastructure for Water (specific to ecosystems and water)

Over the next 15 years, businesses and governments worldwide will invest an estimated US \$10 trillion in water infrastructure alone. As dams and treatment plants age, water demand increases, and more frequent extreme weather events threaten our water resources, need is growing for lower-cost solutions to secure ample and clean water.

At the same time, efforts to secure water resources with innovative “natural infrastructure” approaches – such as forest protection, watershed restoration, and sustainable management of landscapes – are expanding. WRI's Natural Infrastructure for Water Program (<http://www.wri.org/our-work/project/natural-infrastructure-water>) is dedicated to scaling up these smart, cost-effective solutions. The program will leverage WRI's geospatial mapping (e.g., Aqueduct and Global Forest Watch) and economic expertise to identify water risks, unveil natural infrastructure opportunities, and inform smart strategies to secure water resources.

Application of natural infrastructure techniques to climate change adaptation is discussed here: http://www.fs.fed.us/rm/pubs/rmrs_p071/rmrs_p071_313_327.pdf.

Ecosystem Valuation (specific to coastal ecosystems)

WRI's Coastal Capital series was launched in 2005 and aims to provide decision-makers in the Caribbean with information and tools that link the health of coastal ecosystems—including coral reefs, mangroves, and beaches with the attainment of economic and social goals. WRI and its local partners have conducted economic valuation studies of coral reefs and mangroves at national and subnational levels in five countries: Trinidad and Tobago, St. Lucia, Belize, the Dominican Republic and Jamaica. We are using the results to identify and build support for policies that help to ensure healthy coastal ecosystems and sustainable economies.

Building on these studies, WRI has worked with a broad partnership to develop a guidebook called Coastal Capital: Ecosystem Valuation for Decision Making in the Caribbean (<http://www.wri.org/publication/coastal-capital-guidebook>). This guidebook is intended for economic valuation practitioners—both economists and non-economists—who would like to conduct coastal ecosystem valuation to achieve influence and inform real-world decisions. The guidebook leads practitioners through the scoping, analysis, and outreach phases of a valuation effort, using best practices gleaned from our recent review of previous coastal valuation studies in the region. Our goal is for this guidebook to help future coastal valuations in the Caribbean to be more influential in policy, management and investment decisions—ultimately helping to safeguard these resources for generations to come.

Good practices and lessons learned on adaptation planning processes

Making Adaptation Count

WRI also has experience in designing M&E frameworks for adaptation that enable success and failure of adaptation initiatives to be tracked (http://www.wri.org/sites/default/files/pdf/making_adaptation_count.pdf). Putting such a system in place early in a planning process can help keep implementation on track, can make adjustment of the adaptation intervention easier down the road, and simplifies reporting to national authorities, to funders, or to the international community. It also facilitates periodic review and revision of an adaptation intervention, so that adaptation practice can improve over time.

Methodological Approaches for Monitoring and Evaluating Climate Change Adaptation

Monitoring and evaluation of adaptation faces a number of challenges given the uncertain, non-linear, and long-term nature of climate change. These challenges, however, are not unique to the context of adaptation. WRI, in collaboration with the International Institute for Environment and Development, assessed what lessons about monitoring and evaluation can be learned from other fields, such as education and peacekeeping, and applied to adaptation.

This paper, a forthcoming publication of the OECD, examines what the field of adaptation can learn from the more established practice of monitoring and evaluation of development projects and programmes. In doing so, it considers three main challenges:

- How to assess the attribution of an intervention to adaptation
- How to establish baselines and targets for adaptation initiatives
- How to deal with the long-time horizons of climate change within much shorter assessment cycles

Finally, the paper also examines how monitoring and evaluation can address accountability and learning needs.

Using a Tailored View of Successful Adaptation to Climate Change

WRI wrote a paper on the need for utilizing a tailored framework for assessing climate change for USAID, under the African and Latin American Resilience to Climate Change (ARCC) project (forthcoming). Because a diverse set of interventions qualify as adaptation it can be challenging to define adaptation, and moreover, to define successful adaptation. However, it is necessary to do so in order to more effectively fund and operationalize interventions that reduce vulnerability to climate impacts. In the paper, the authors provide a simple starting point for funders and practitioners who wish proactively consider how to plan adaptation interventions and assess their success.

The authors propose two characteristics that can help define a particular adaptation intervention: the objective of the intervention; and the type of result that it aims to achieve. The authors then combine these characteristics into a framework that has 16 different definitions of successful adaptation. Adaptation funders or practitioners can locate their particular adaptation intervention within the framework; this location can act as a starting point for considering what success of the intervention might look like. This framework is only the beginning of the planning and assessment process, but it provides a common starting point among the variety of forms that adaptation and adaptation success can take.

Good practices and lessons learned related to processes and structures for linking local and national adaptation planning

Scaling Up Good Adaptation Practice in India

To assist policymakers and practitioners in formulating programs that are grounded in evidence, WRI, the Watershed Organization Trust (WOTR) and the Swiss Agency for Development and Cooperation (SDC) have launched a new project to further the creation of more resilient policies and programs (<http://www.wri.org/our-work/project/promoting-effective-adaptation-india/scaling-good-adaptation-practices#project-tabs>). This work will promote adaptation policies and funding programs at national and international levels that reflect solid research findings from the local level. The initiative will entail collaborative activities in two major work areas:

- **Research & Analysis:** Successful future adaptation requires that we carefully take stock of the body of adaptation experience to date, and that we put in place monitoring and analysis systems that enable future evaluation and learning. To this end, WRI and WOTR will jointly publish a set of case study briefs highlighting lessons learned from the WOTR's Adaptation Project. We also will establish data systems within WOTR's ongoing programs to provide a foundation for future joint research, and to serve as a model for other adaptation monitoring systems. The initiative will also produce a major synthesis report on lessons learned from adaptation initiatives in India to date. This report will also provide a framework for scaling up successful adaptation initiatives, and identify specific interventions that are ripe for scale-up in the context of dryland agriculture in India.
- **Knowledge Sharing & Policy Outreach.** The initiative seeks to leverage new and existing networks to help India's adaptation "community of practice" grow and strengthen – both as

practitioners and as a powerful constituency for improving adaptation policy and programming. We seek partners to help create an “India Adaptation Learning Hub” where a broad set of practitioners can share tools, resources, and knowledge products. The WRI-WOTR initiative will conduct strategic outreach both to strengthen this community and to bolster national and international policy action on adaptation.

Tracking Adaptation Finance

Developing country governments have increased their own spending to adapt to climate change and enhance resilience, recognizing the risks that climate change already poses to their people and economies. But how much finance is actually available within developing countries? How it is used? Who receives the money? Is it reaching the local level? And are the needs of the poorest and most vulnerable being met? These are the questions that the Adaptation Finance Accountability Initiative (AFAI) tries to answer by analyzing adaptation finance flows in Nepal, the Philippines, Uganda, and Zambia.

WRI, in collaboration with Oxfam America and ODI, have written a paper explores the challenges of reaching the most vulnerable people with adaptation finance (<http://www.wri.org/sites/default/files/adaptation-finance-plumbing.pdf>). It identifies opportunities for improvement and proposes a framework to assess delivery of adaptation finance focusing on transparency, ownership, responsiveness and equity.