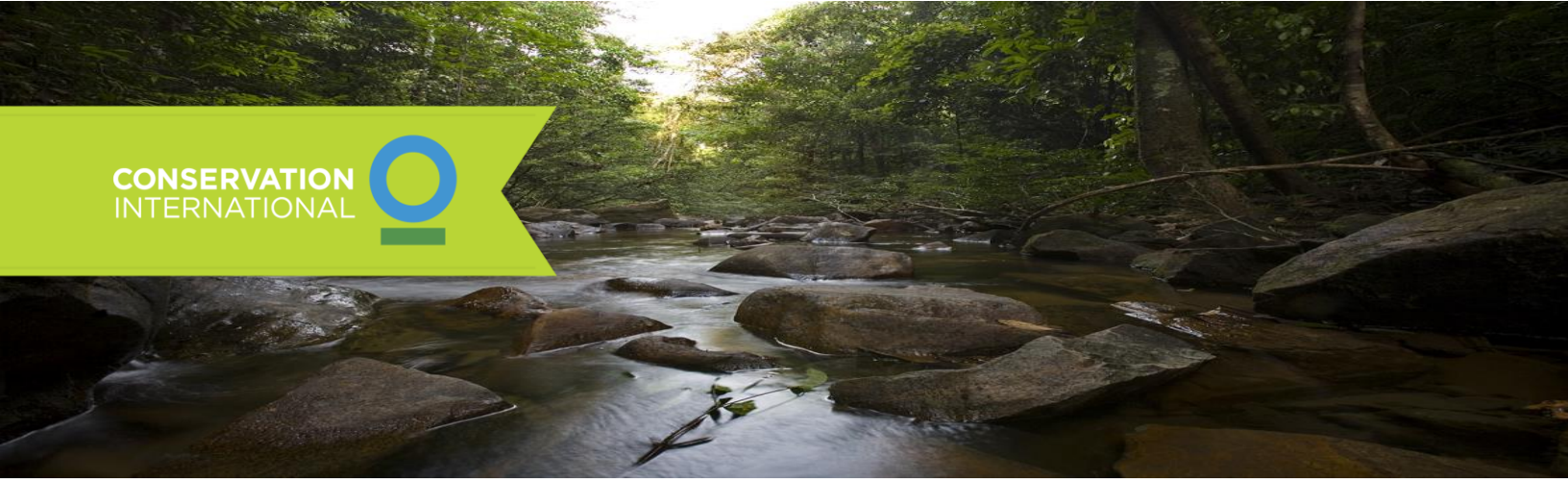


Measuring the adaptation outcomes of ECOSYSTEM-BASED ADAPTATION

What is Ecosystem-based adaptation?

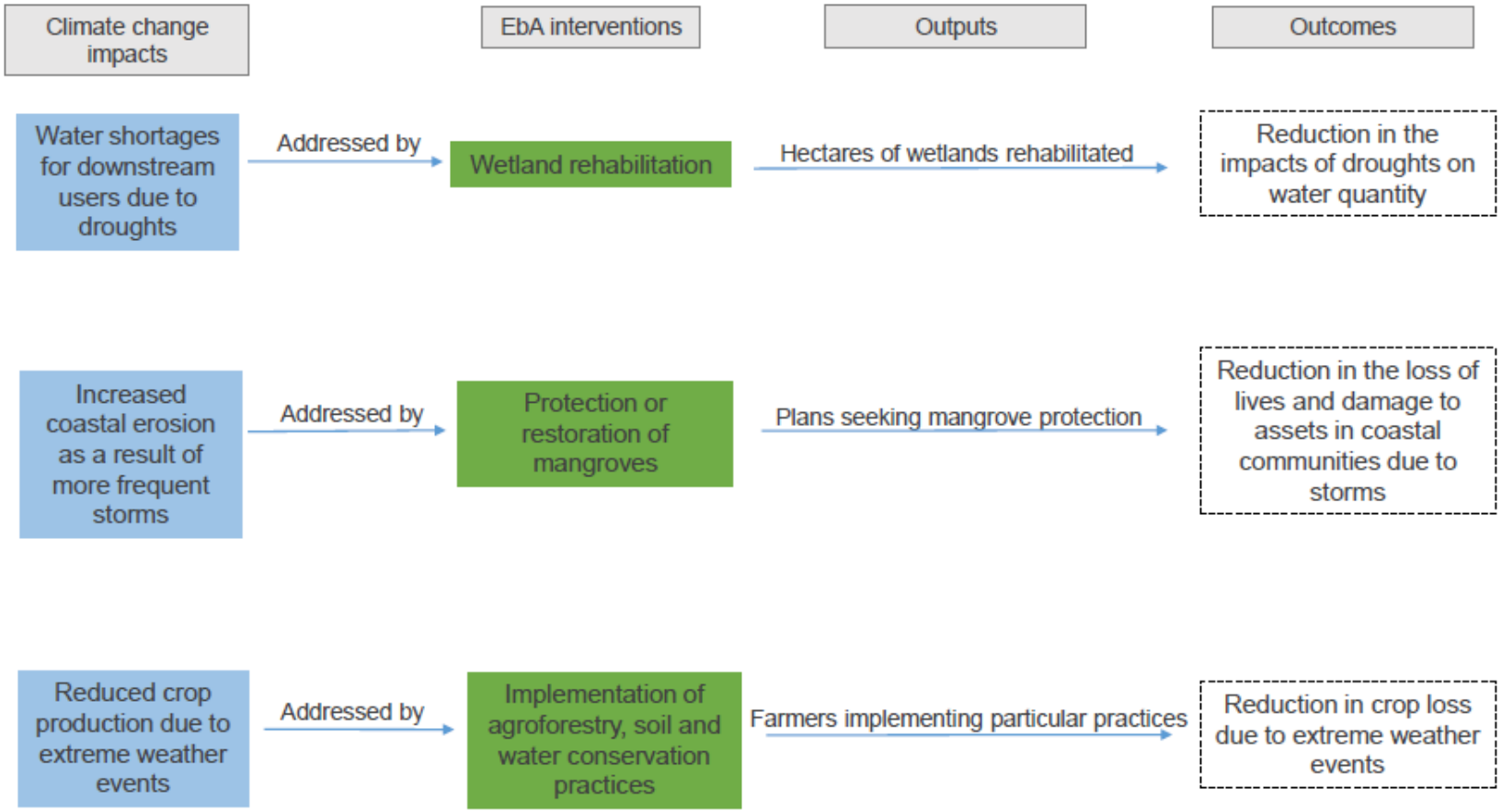
- Ecosystem-based adaptation (EbA) is "the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to the adverse effects of climate change" (CBD 2009[1]). It includes the conservation, restoration and sustainable management of ecosystems and biodiversity to address climatic risks.
- EbA interventions are part of a broader portfolio of adaptation actions to reduce climate vulnerabilities and enhance the adaptive capacity of people.
- Examples of EbA interventions include the conservation of mangroves to protect people against storms, the reforestation of degraded areas to prevent floods under changing climatic conditions, and the use of shade trees in coffee plantations to maintain production even as temperatures rise, among others.
- EbA can be applied in natural landscapes and seascapes, and in human-managed landscapes such as agricultural and urban areas.
- In addition to helping people adapt to climate change, EbA also contributes to climate mitigation, disaster risk reduction, biodiversity conservation and sustainable development.

Why do we need indicators to measure the adaptation outcomes of EbA?

- Currently, there is no general agreement on how to measure the adaptation outcomes of EbA.
- Many EbA projects simply measure the implementation of project activities (or outputs) (e.g., hectares of wetlands rehabilitated, farmers implementing particular practices), but do not assess the **actual adaptation outcomes** that EbA can deliver (Figure 1).
- Measuring and tracking the adaptation outcomes of EbA would allow policy makers, donors and practitioners to evaluate the impacts of EbA investments, monitor EbA effectiveness, and evaluate progress towards national adaptation goals. It could also help boost confidence and investment in EbA interventions.

[1] CBD. 2009. Connecting biodiversity and climate change mitigation and adaptation. Report of the second ad Hoc Technical Expert Group and Climate Change. CBD Technical series No. 41. Secretariat of the convention on Biological Diversity.

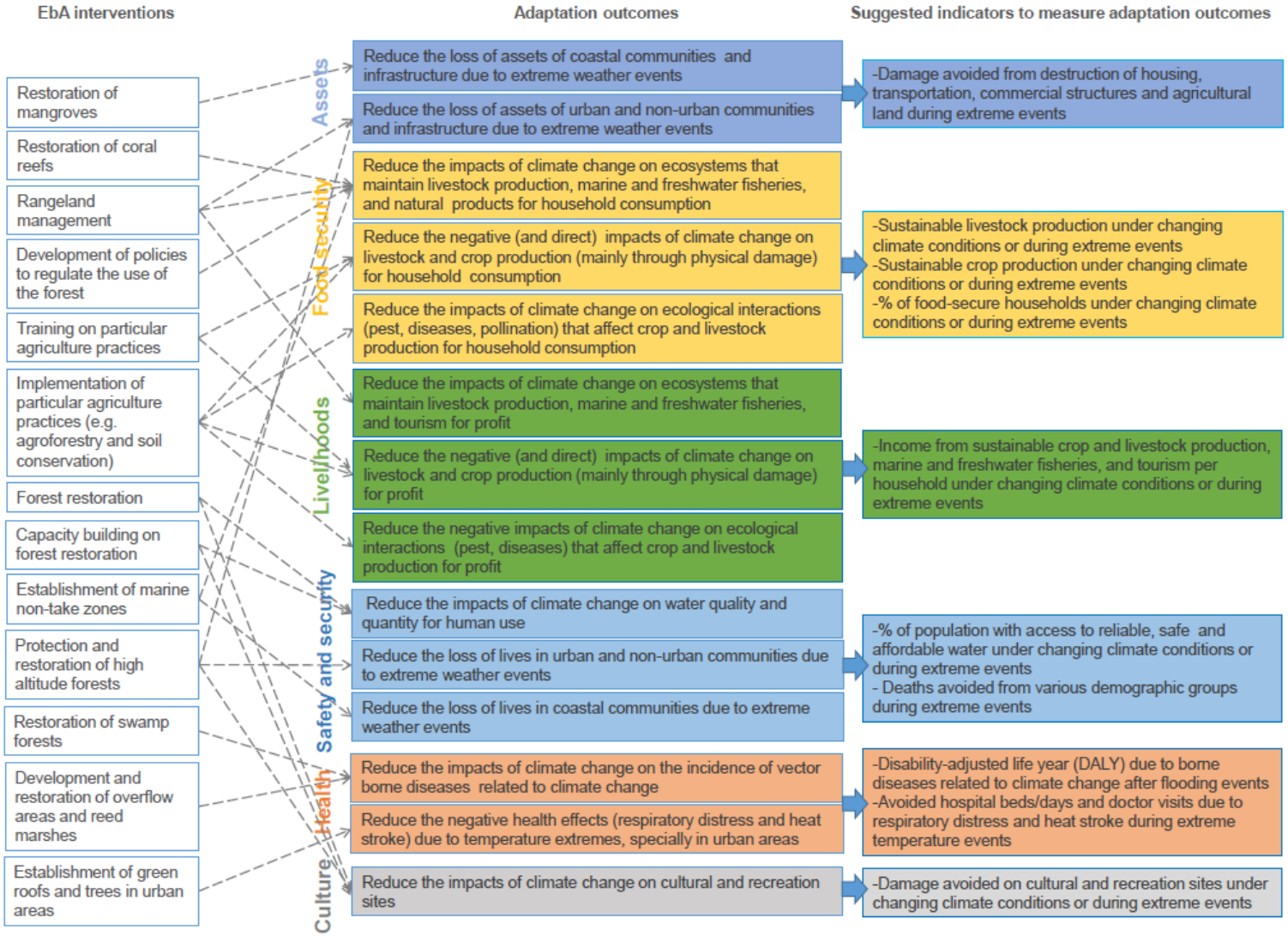
Figure 1. Examples of EbA interventions implemented to address specific climate change impacts, and the outputs and outcomes that can be achieved through EbA implementation.



What adaptation outcomes can be achieved through EbA and which indicators can be used to measure them?

- Based on a review of 60+ EbA projects (available in the UNFCCC, CCBA, GEF, UNEP and USAID databases), we identified 14 adaptation outcomes (in 6 major categories) that can be achieved through EbA (see Figure 2).
- In Figure 2, we propose a set of indicators that could be used to measure the adaptation outcomes of EbA interventions.

Figure 2. Examples of EbA interventions that could lead to adaptation outcomes, and suggested indicators[2] that could be used to measure such outcomes. All indicators should be compared to the baseline condition (prior to EbA implementation).



[2] This is a work in progress and the suggested indicators are in the process of being developed further.

What is needed to encourage the use of a common set of indicators to measure the adaptation outcomes of EbA?

- Present and discuss adaptation outcomes indicators with technical advisory bodies (e.g. adaptation committee of the UNFCCC, CBD, IPBES, FEBA-Friends of EbA, among others) to enhance awareness of the need for those types of indicators and to refine them further.
- Advocate for the inclusion of adaptation outcomes indicators in monitoring and evaluation systems already used by governments at the national and subnational levels, and in monitoring frameworks required by donors.
- Share information on adaptation outcomes that can be achieved through EbA and indicators that can be used to measure them, as well as case studies, with policy makers, donors and practitioners, to encourage their adoption.

Building on successful research, demonstration projects, and engagement in international policy, CI is driving a set of key steps toward eliminating greenhouse gas emissions from the loss of carbon-rich ecosystems and securing the ecosystems that strengthen humanity's adaptive capacity to the impacts of climate change.

Authors

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