

**GOAL #4
CLIMATE CHANGE ADAPTATION MEASURES ACHIEVED**

TARGET 1

REGION-WIDE EARLY ACTION PLAN FOR CLIMATE CHANGE ADAPTATION FOR THE NEAR-SHORE MARINE AND COASTAL ENVIRONMENT AND SMALL ISLAND ECOSYSTEMS DEVELOPED AND IMPLEMENTED

2012
(plan)

2015
(full implementation)

A region-wide *Early Action Plan for Climate Change Adaptation* for the near-shore marine and coastal environment (including small island ecosystems) is completed, followed by full implementation in each CTI country – addressing economic and livelihood needs of coastal communities heavily dependent on marine and coastal resources, and biodiversity conservation objectives.

Annotations explaining Target 1

- The Plan will serve as a major step toward implementing the climate change adaptation obligations (in each country) of the CT governments under the UN Framework Convention on Climate Change (UNFCCC).
- The Plan will draw upon ecological and social resilience models and a series of vulnerability assessments, and define priority climate adaptation steps that need to be taken in the *short-term*, even in the face of scientific uncertainties associated with future climate change impacts.
- The Plan will include *regional collaborative actions*, *general actions* to be taken in each CTI country, and *more specific actions* in each country, covering a range of management scales and frameworks (e.g., trans-boundary seascape management plans; integrated coastal zone management plans for districts, provinces, and single-country seascapes; MPA network plans).
- Two overall objectives of the Plan will be (i) to maintain the *biological diversity* and the *ecosystem services* provided by marine and coastal resources that are particularly critical to income, livelihoods and food security of coastal communities; and (ii) to support *livelihood diversification strategies* that assist coastal communities in adapting to future adverse impacts of climate change on marine-based livelihoods.

REGIONAL ACTION 1

Identify the most important and immediate adaptation measures that should be taken across all Coral Triangle countries, based primarily on analyses using existing models

Through analyses and expert workshops, identify general adaptation steps that should be taken in all CT countries in the short-term. As a starting point, drawing on existing models, the framework for identifying these short-term steps could include the following:

- Map vulnerability. Produce maps that incorporate information on populations and human settlements, hazard vulnerability, inundation vulnerability, habitats, infrastructure, economic centers, and environmental services – identifying geographic areas and marine/coastal resources most vulnerable to climate change impacts, which would then be prioritized for early adaptation actions.
- Spread risks by protecting multiple habitat examples. Minimize risks to address uncertainties by protecting multiple representatives of resilient habitats covering a range of physiographic conditions.
- Conserve inherently resilient areas. Prioritize areas that have physiographic characteristics that make them inherently resilient to climate change; these areas can serve as refuges to reseed affected areas.
- Maintaining ecological connectivity. Maintain important ecological connectivity linkages, such as “source” / “sink” linkages among associated reefs and other habitats.
- Reduce major non-climate stressors. Reduce other major non-climate stresses on marine, coastal and small islands ecosystems that directly decrease the capacity of these ecosystems to endure climate change.
- Emphasize social resilience. Build “social resilience” into adaptation strategies, with a focus on sustainable management of coastal fisheries and livelihood diversification as responses to anticipated future adverse impacts on marine-based livelihoods.
- Increase awareness and understanding. Increase awareness and understanding of CT stakeholders on climate change impacts and practical adaptation measures that are available.

2011

REGIONAL ACTION 2

Identify the most important and immediate adaptation measures that could be taken in each CT country

Drawing on the results of Regional Action #1 (above), identify *country-specific* steps needed in each CT country (as part of national adaptation strategies being developed under UNFCCC obligations). These steps will support the other Goals and Targets in the CTI Plan of Action, and could include, for example:

- finer-scale modeling;

<ul style="list-style-type: none"> country-tailored vulnerability assessments and monitoring activities; country-tailored ecosystem protection and livelihood diversification programs; specific legal and policy reforms; and specific strategies to communicate climate change impacts and adaptation issues to targeted audiences. 	2011
REGIONAL ACTION 3	
<p>Complete and implement a Region-wide Early Action Plan for Climate Change Adaptation Based on the two actions described above, jointly complete a region-wide <i>Early Action Plan for Climate Change Adaptation</i> for near-shore marine and coastal environments (including small islands ecosystems), including identification of domestic and international funding to implement the Plan. Fully implement the Plan in each CT country. A multi-sector <i>forum or committee</i> on this topic in each country may be a useful mechanism to support collaborative and well-coordinated action.</p>	2012 (plan) 2015 (full implementation)
REGIONAL ACTION 4	
<p>Conduct capacity needs assessments and develop capacity building programs on climate change adaptation measures Based on capacity needs assessments, develop capacity building programs in each country to support climate change adaptation measures.</p>	2011
REGIONAL ACTION 5	
<p>Mobilize financial resources to implement Region-wide Early Action Plan for Climate Change Adaptation Mobilize financial resources, including through collaborative efforts, to finance implementation of the measures contained in the Region-wide Early Action Plan for Climate Change Adaptation</p>	2011
TARGET 2	
<p style="text-align: center;">NETWORKED NATIONAL CENTERS OF EXCELLENCE ON CLIMATE CHANGE ADAPTATION FOR MARINE AND COASTAL ENVIRONMENTS ARE ESTABLISHED AND IN FULL OPERATION</p> <p>A regional network of <i>National Centers of Excellence on Climate Change Adaptation for Marine and Coastal Environments</i> is established, with national centers operational in each CT country, designed to (i) improve understanding of future climate change impacts and related issues; and (ii) support comprehensive application of effective adaptation measures to mitigate these impacts, with a focus on biodiversity conservation and economic and livelihood needs of communities heavily dependent on marine and coastal resources.</p>	2013
<p>Annotations explaining Target 2</p> <ul style="list-style-type: none"> These national centers of excellence will represent important steps toward fulfilling UNFCCC obligations of CT governments related to climate change adaptation. These national centers are likely to take a variety of forms, and will build on existing mechanisms and designated focal points. The essential concept is to establish an effective “focal point” in each country for climate change adaptation measures for the marine AND coastal environment, to facilitate data and information management (e.g., episodes of coral bleaching, eutrophication and Harmful Algal Bloom) and support coordinated action. For some countries, these centers may need to start quite modestly (e.g., working group, a virtual center, or an existing office or small unit designated within a relevant ministry). For other countries, a more complex and advanced model could be considered, even at the outset. These national centers could coordinate the early capacity building activities needed, and coordinate the development of the National Adaptation Plans referenced above. Over time, such centers of excellence could be designed to (i) <i>generate projections</i> of climate change vulnerabilities and impacts related to coastal communities and marine and coastal resources—for the region as a whole (through collaborative efforts) and for specific geographies, drawing on advanced modeling tools; (ii) commission and support <i>targeted research</i> on adaptation strategies; (iii) provide <i>practical training</i> and various other forms of technical support for field applications and piloting of adaptation measures and resilience models; (iv) provide <i>tools, case studies, and technical advice</i> on ways to incorporate adaptation measures in governmental plans (e.g. spatial plans, poverty reduction strategies); and (v) provide <i>communications tools</i> on climate change and adaptation strategies. National centers could be networked through a regional coordination mechanism of some kind (to be determined). National centers will collaborate with leading scientific institutions working on climate change adaptation issues. 	
REGIONAL ACTION 1	

<p>Collaborate around the design and implementation of a Pilot Phase for <i>National Centers of Excellence</i> Share models, tools and information, and jointly mobilize support around, the pilot phases of national centers in each country, which could include the following types of actions:</p> <ul style="list-style-type: none"> • Complete “business plans” for national centers in each country, describing overall design elements of the Centers as well as activities under a pilot phase. • Implement Pilot Phases for the national centers, emphasizing a practical national work program, as well as a regional networking component (e.g., sharing models, tools and approaches; collaborating around regional assessments). Wherever possible, national centers will build upon <i>existing institutions</i> working on climate change and adaptation issues. Some foundational activities under pilot phases could include: <ul style="list-style-type: none"> ⇒ <i>Studies of the economic costs of inaction (and the economic benefits of action)</i>. Estimate the economic costs of <i>inaction</i>, and analyze costs and benefits of various actions, to support decision-makers in making sound decisions related to budgeting and planning. ⇒ <i>Communications strategies and programs</i>. Develop effective communications strategies and programs, such as: (i) case studies and testimonials of local communities already witnessing and experiencing climate change impacts, to help communicate to other local communities and decision-makers the urgency for action; (ii) user-friendly print and video materials customized for decision-makers; and, (iii) learning networks and other information sharing mechanisms. • Mobilize funding and technical support for pilot phases. This could include, as appropriate, some <i>joint</i> approaches to external funding agencies and technical assistance providers (e.g., scientific institutions). 	<p>2012 (design of pilot phase)</p> <p>2014 (full implementation)</p>
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