

GUIDANCE FOR NATIONAL BLUE CARBON ACTIVITIES

Fast-tracking national implementation in developing countries



Salt marsh corer
Annapolis, Maryland, USA
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Coastal ecosystems – in particular mangroves, tidal marshes and seagrasses – contain rich carbon reservoirs. When these ecosystems are converted or degraded, they release this stored carbon into the atmosphere and oceans and become sources of greenhouse gas (GHG) emissions. The conservation, restoration and sustainable use of these systems can support climate change, as well as conserve many other benefits these ecosystems provide, such as fisheries support and coastal protection.

A number of developing countries, such as Indonesia, have started to address the conversion and degradation of coastal ‘blue carbon’ ecosystems through national policy, management and planning. These countries can reduce their GHG emissions and contribute to climate change mitigation.

This brief provides guidance on how to efficiently include blue carbon activities and priorities into national climate change mitigation efforts. It is intended to support national government representatives, NGOs, research institutions and other stakeholders engaged in national climate change policy development and implementation.

High Priority activities for national policy and management include:

- Development of national blue carbon action plans, outlining specific national circumstances, opportunities, needs and limits;
- Conducting national scientific carbon, ecological and socio-economic assessments of shallow coastal marine ecosystems;
- Conducting national cost-benefit analysis of including blue carbon activities into national climate change mitigation strategies, together with a description of the short and long-term benefits of carbon-related finance and activities in coastal areas.

Many countries will likely need to focus on readiness activities that increase national understanding and capacity on the technical, policy and institutional aspects of emissions and removals from blue carbon sinks and reservoirs. Below is an indicative list of activities that should be conducted on a national level to ensure blue carbon is comprehensively included into national level mitigation activities.



Salt marsh with
foggy sunrise
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Scientific & technical advancements:

- Develop a comprehensive national coastal carbon assessment. The assessment should include existing coastal carbon stocks and estimates of emissions from converted ecosystems that can support the development of default emission factors for a range of conversion types;
- Identify, if relevant, carbon emissions and removals from human activities in coastal ecosystems that are key source categories for climate change mitigation¹.
- Integrate mangrove ecosystems into national forest inventories;
- Conduct, or revise as appropriate, national inventories for tidal marshes and seagrasses;
- Assess the types and rates of loss of blue carbon ecosystems where possible using satellite and remote sensing, in-situ data and local community data;
- Assess threats and national drivers for deforestation, degradation and loss of coastal carbon ecosystems;
- Explore the carbon mitigation potential from silvofisheries in fisheries, shrimp ponds and mariculture projects.

Institutional clarification and coordination:

- Clarify the responsibilities and roles of agencies or ministries involved, or to be involved, in climate change and blue carbon activities. Given that government agencies responsible for coastal management and policy may not be the same agencies responsible for climate change planning and policy, REDD+ planning or adaptation and national climate mitigation strategy, how can separate national entities within a country develop, coordinate and implement blue carbon activities?
- Provide a coordinated institutional framework and cross-sector planning to ensure efficient and comprehensive implementation of activities. Include all relevant agencies and institutions in charge of coastal and marine issues into design and implementation of the overall climate change efforts.

Legal set-up and strategic planning steps:

- Provide a legal framework that allows for integrated coastal carbon mitigation efforts to be pursued as part of national climate change mitigation efforts;
- Include blue carbon activities into national voluntary mitigation targets, e.g. for Land-use, Land-Use Change and Forestry (LULUCF) sector and/or national low carbon development strategies to show commitment and determination to address this issue on a national level;
- Identify existing national policies for coastal ecosystem conservation, restoration and management and assess how blue carbon activities can be integrated;

¹ The IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories describes a key source category as “one that is prioritized within the national inventory system because its estimate has a significant influence on a country’s total inventory of direct greenhouse gases in terms of the absolute level of emissions, the trend in emissions, or both”.

- Identify and provide clarification on land tenure issues and property rights in coastal and marine areas. Equitable and secure distribution of incentives based on carbon in coastal systems requires that the tenure regimes and rights in coastal areas be assessed and addressed, including within such carbon mechanisms as REDD+ or voluntary carbon offsets;
- Develop, or revise as appropriate, an integrated national climate change plan or strategy:
 - A comprehensive, national strategy for the management of natural carbon sinks and sources across all land and seascapes focused on minimizing displacement of emissions. This would include the need to account for the different drivers causing emissions (e.g. deforestation, agriculture, aquaculture, coastal development) throughout different land and seascapes;
 - Develop, or revise as appropriate, national REDD strategy or program, and/or national NAMA strategy/plan;
 - Integrate elements of Integrated Coastal Zone Management (ICZM) and Marine Spatial Planning (MSP) into development of policies and measures. Until now the different approaches to coastal conservation have not explicitly addressed the carbon mitigation potential of blue carbon ecosystems. There is a significant opportunity to integrate carbon sink management into coastal zone planning. This will expand support for coastal zone management as well as ensure that greater practical measures are included within such schemes to fully protect vulnerable coastal ecosystems.
- Ensure transparency of financial carbon flows and implementation of environmental and social safeguards. The implementation of environmental, social and governance safeguards is integral for equitable, effective, transparent and accountable climate change mitigation efforts.

Capacity development & awareness-raising:

- Support and foster technical capacity development (mapping, measuring, monitoring);
- Develop capacity at all government and implementation levels, including to ensure participation and reporting to the UNFCCC;
- Ensure increased national public attention and societal perception toward coastalmarine ecosystems to ensure broader support, understanding and thus easier implementation of activities in those areas.

Stakeholder engagement:

- Engage relevant coastal stakeholders and community to allow for multi-stakeholder engagement. Policy and management of coastal carbon ecosystems for climate change mitigation requires that stakeholders engaged in both coastal and climate mitigation activities be consulted and involved in planning and implementation processes;
- Identify opportunities and risks for coastal stakeholders, including coastal communities and local fishermen. For example, the distribution of benefits and resources resulting climate change mitigation activities and finance should be clearly and appropriately reflected in the design and implementation of any climate mitigation incentive mechanisms;
- Provide for coordination between government activities and other blue carbon activities (e.g. with NGOs) so to ensure engagement, broader awareness of different efforts and identification of complementary benefits.

Recommendations for NAMA processes:

- Develop coastal wetland NAMAs or include blue carbon ecosystems in broader NAMAs and prepare for implementation (including technical, policy and institutional aspects);
- Provide cost estimate (incremental costs) for developing and implementing national blue carbon NAMA
- For countries with an obligation for self-financed NAMAs, explore opportunities to include blue carbon as part of adaptation activities.

National REDD+ recommendations:

Phase I - Readiness

- Develop, or revise as appropriate, the national legal framework for REDD+ activities to include mangroves, broader coastal stakeholder engagement etc;
- Include mangroves into national forest inventories (spatial mapping, classification);
- Include mangrove data into national deforestation baseline;
- Include mangrove data (including soil carbon) in Reference Emissions Levels and GHG monitoring systems as much as possible:
 - Parse out and apply specific requirements for mangrove forest monitoring (for example on soil data collection) which might not be needed for all forest areas;
 - Develop technical papers on how to integrate mangroves with national forest monitoring activities (e.g. which techniques to use);
- Develop MRV Forestry Information Systems that includes mangrove data;
- Assess and reduce the threats and national drivers for deforestation/degradation;
- Allow for nesting of project-based REDD+ activities into national-based activities;
- Use existing avenues and funding mechanisms such as the UN-REDD program or the Forest Carbon Partnership Facility (FCPF) to advance those activities.

Phase II - Policy and Measures

- Provide for harmonization of regulations between central and district authorities;
- Develop policies to reduce threats/national drivers for deforestation, degradation and loss of coastal carbon ecosystems.



A woman measures seagrass plot. Andaman Sea, Thailand.
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Abu Dhabi, United Arab Emirates
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Dave Everitt

This brief has been developed based on the discussion held at the third workshop of the International Blue Carbon Policy Working Group (July 2012), a part of the Blue Carbon Initiative. The Blue Carbon Initiative is the first integrated program focused on mitigating climate change by conserving and restoring coastal marine ecosystems globally. The initiative is led by Conservation International (CI), the International Union for Conservation of Nature (IUCN), and the Intergovernmental Oceanic Commission (IOC) of UNESCO, and works with partners from national governments, research institutions, NGOs, coastal communities, intergovernmental and international bodies and other relevant stakeholders.

The International Blue Carbon Policy Working Group consists of experts in coastal science, environmental policy and economics, and project implementation from within the climate change and marine communities. These recommendations do not necessarily represent the views of IUCN or CI.

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