

Coastal blue carbon and Article 6

Implications and opportunities

Summary¹

A phased cooperative approach for blue carbon

Mangroves, saltmarshes and seagrasses – referred to as ‘coastal blue carbon ecosystems’ – provide both global and local ecosystem services and benefits, including for climate mitigation and adaptation. However, these ecosystems are under threat. Since 1996, 9,736 km² of mangroves have been lost and 1,389 km² have been degraded. The disappearance of blue carbon leads to significant volumes of carbon being emitted into the atmosphere.

We propose an overall phased cooperative approach for coastal blue carbon under Article 6 of the Paris Agreement which would establish incentives for countries to protect coastal ecosystems, while at the same time improving countries’ domestic capacities through data collection, enhanced transparency and more comprehensive accounting of blue carbon stocks and fluxes in these ecosystems. Importantly, the suggested phased approach would also contribute to gradually enhancing the coverage of Nationally Determined Contributions (NDCs) in blue carbon countries to include coastal carbon and help to progress to emission reduction or limitation targets.

On this basis, a phased cooperative approach for coastal blue carbon could resemble to some extent the staged approach adopted for Reducing Emissions from Deforestation and Forest Degradation (REDD+). However, and differently from REDD+ in this aspect, it does not need to be fully reflected and articulated through UNFCCC decisions. Article 6 – and in particular Article 6.2 – offers the necessary flexibility for cooperating countries to define the scope and extent of their cooperation, provided that key international principles of environmental integrity, mitigation and adaptation ambition, and transparency are respected.

Coastal blue carbon under the UNFCCC

The United Nations Framework Convention on Climate Change (UNFCCC) aims to stabilize greenhouse gas (GHG) levels to prevent continued human interference with the climate system. While blue carbon is not an official term under the UNFCCC, coastal ecosystem management falls under national carbon accounting and the reduction of carbon emissions and increased removals from mangroves, saltmarshes and seagrasses can be used to meet national climate goals.

However, to fully tap into the potential of blue carbon in the context of adaptation and mitigation actions, we need more and better mechanisms, methodologies and strategies that consider the special features of coastal ecosystems. Carbon market mechanisms under the Kyoto Protocol include the Clean Development Mechanism (CDM) and Joint Implementation (JI). These mechanisms – set to be phased out with the Paris Agreement – did not provide appropriate incentives for coastal blue carbon projects, which were largely restricted to the voluntary carbon market.

¹ The complete working paper is available at <https://climatefocus.com/publications>



The Paris Agreement provides opportunities to develop dedicated blue carbon approaches. NDCs and a new carbon market regime under Article 6 of the Paris Agreement can offer suitable avenues for promoting better accounting of coastal ecosystem management and incentivize financial flows to coastal blue carbon interventions. Carbon markets under the Paris Agreement are likely to build on the mechanisms of the Kyoto Protocol but also provide greater flexibility, opening new possibilities for coastal blue carbon management measures.

Under the Paris Agreement all countries have emission reduction pledges. This means that all countries could potentially become sellers and buyers of emission reductions when engaging in cooperative approaches developed under Article 6 of the Agreement. However, it also means that developing countries have to be more cautious in selling and transferring their emission reductions. We therefore propose a phased approach that allows coastal countries to gradually scale mitigation activities backed by better accounting and MRV skills.

Benefitting from the different modalities Article 6 offers

The approach involves blue carbon countries and financiers to jointly explore which market or non-market-based route is most fitting for engagement.

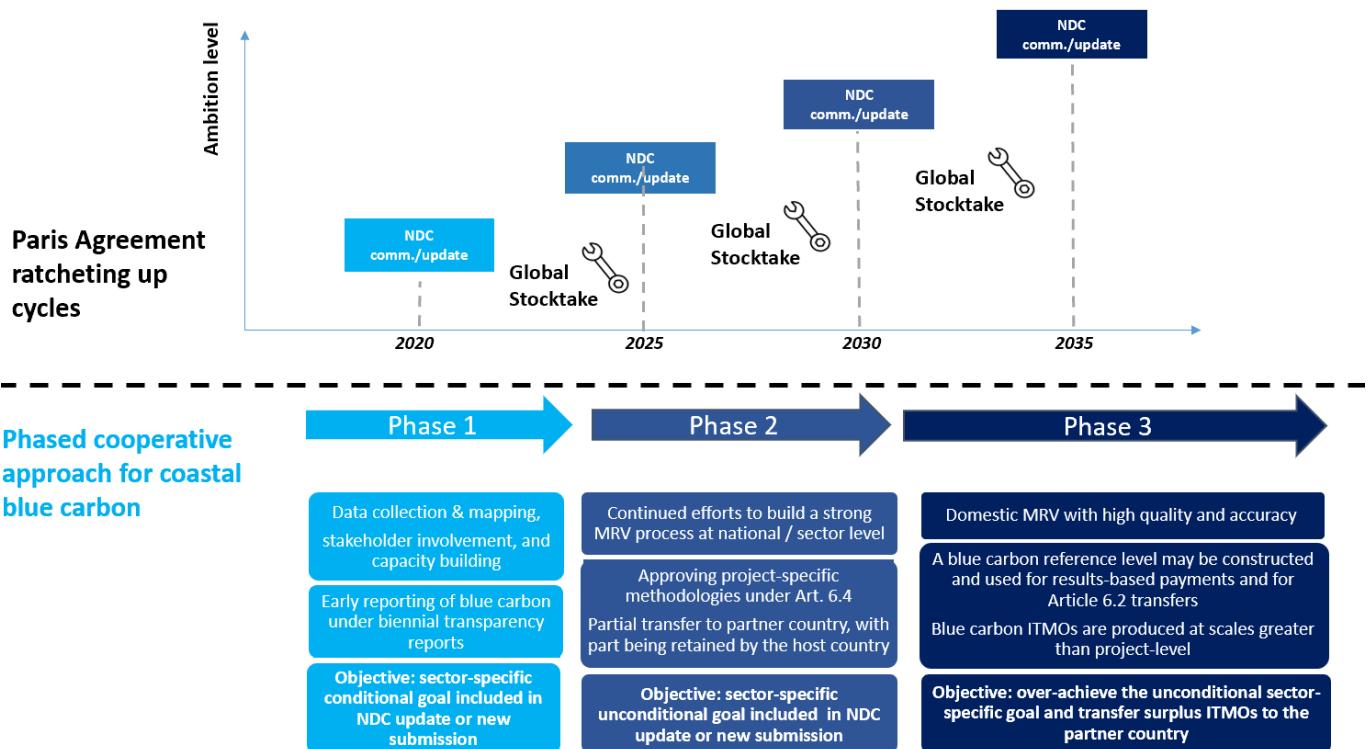
While **Article 6.2** enables countries to voluntarily engage in decentralized forms of cooperation, whereby Parties can implement country-led collaborative market mechanisms and transfer Internationally Transferred Mitigation Outcomes (ITMOs), **Article 6.4** creates a centralized crediting mechanism governed by a UNFCCC body and open to all (similar in several aspects to JI and the CDM). **Article 6.8**, in turn, establishes a framework for non-market cooperation approaches which can entail the provision of finance where mitigation benefits are retained in full by the host country.

Only a few countries have included coastal blue carbon measures in their NDCs. Article 6 provides various routes to gradually include blue carbon into national emissions accounting and NDC goals. These routes can allow for improving project and sectoral accounting of emissions and removals, broadening the scope of mitigation actions, and building local capacities in a step-wise manner.

A phased Article 6 cooperative approach could be piloted to enable host countries to make the most of the opportunities that Article 6 offers. Such phased approach could enable an increasingly evolved accounting approach, relying in a first step on general climate finance (via Article 6.8), passing through an international centralized MRV and crediting system (via Article 6.4), and moving on to a country-owned MRV and crediting process at a later stage (via Article 6.2). Each stage of such cooperation would follow the standards set by the Paris Agreement, but likely add additional criteria to create a robust cooperative model that could eventually be replicated to other interested countries.

A graduation through different phases

A coastal blue carbon cooperative approach could be established through a bilateral or plurilateral cooperation in line with Article 6 of the Paris Agreement. Countries interested in financing and developing coastal blue carbon initiatives could partner with coastal countries to establish the necessary capacities and infrastructure to eventually produce and transfer emission reductions ('mitigation outcomes'). The phases for such a cooperative approach could include:



Phase 1: Data gathering and capacity building

The first phase would consist of mapping out existing knowledge and information, institutions, policies and national climate measures as they relate to blue carbon. In doing so, phase 1 would capture several aspects for cooperating countries to consider for their cooperation in protecting coastal ecosystems:

- gathering data on coastal carbon stocks and stock changes in the coastal country
- defining interventions and blue carbon conservation strategies
- establishing relevant stakeholders as well as their respective roles
- considering the need for creating or further refining social and environmental safeguards

During this phase, coastal countries would therefore build capacities and initiate the establishment of MRV systems. As an outcome of phase 1, the cooperating countries could agree to include coastal blue carbon areas and ecosystems in the host country's NDCs (for a coastal country that has not yet covered blue carbon as part of its NDC-related mitigation efforts) or propose a conditional sector-specific goal to be included in the NDC (for a host country in which coastal blue carbon was already considered as a mitigation strategy under the NDC).

Phase 2: Crediting specific blue carbon activities

Following phase 1, countries could transition towards crediting GHG reductions and removals from specific blue carbon activities for which activity data is available and reliable. The partner countries could, for instance, work to approve project-specific methodologies under Article 6.4 for those coastal blue carbon activities where uncertainty over carbon fluxes and permanence risks are deemed lower.

The cooperating countries would then jointly decide how to account for and use Article 6.4 units eventually generated by the relevant blue carbon activities. The use of Article 6.4 requires the



cooperating countries to deliver an overall mitigation in global emissions (OMGE), thus going beyond the mere offsetting of emissions. The work at project level would assist in gathering additional valuable data for further refining accounting at the sectoral level. For those blue carbon activities where a higher level of uncertainty remains, a non-transfer results-based approach could be used.

As an outcome of phase 2, the coastal country can consider an unconditional blue carbon-specific target for inclusion in the subsequent NDC cycle. The cooperating countries can also begin establishing a blue carbon reference level for results-based payments and Article 6.2 transfer-based finance in phase 3.

Phase 3: Crediting coastal blue carbon at larger scales

As MRV capacities and collected data in the coastal country increase in quality and accuracy, a clearer understanding of the contribution of blue carbon to achieve the NDC becomes possible. In this final phase the coastal country would already have collected data, maintained records and reported on blue carbon for a number of years. The coastal country would also have blue carbon activities and interventions under implementation, together with MRV systems that can properly account for removals and emissions.

Crediting coastal blue carbon under a sectoral approach would allow the coastal country to consider offering coastal blue carbon ITMOs (pursuant to Article 6.2 guidance) at scales greater than project-level. Available ITMOs would be measured against a blue carbon reference level that reflects the NDC's unconditional target and the mitigation contribution expected from blue carbon interventions.

As an outcome of phase 3, the host country would aim to over-achieve the unconditional sector-specific goal (along with the entirety of the NDC) and sell surplus mitigation outcomes to the partner country, which may or may not use these mitigation outcomes for its own NDC achievement. Article 6.4 could still be applied in this final phase to allow specific project activities to be directly incentivized.

For this to work, however, the partner countries need to agree on a sharing arrangement of the mitigation outcomes produced by the cooperation, where the host country is able to retain enough emission reductions to achieve its own NDC or at least the country's blue carbon sector-specific goal.



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