

Incorporating Blue Carbon Ecosystem services into the Blue Economy and National Accounting

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Despite their relatively small global extent (~0.2% of the ocean surface), vegetated coastal ecosystems (VCE) – tidal marshes, mangroves and seagrasses – provide a disproportionate contribution of valuable ecosystem goods and services, including coastal protection, nutrient filters, and nursery for fisheries, that protect and enhance the livelihoods of rural economies, upon which many nations depend. In addition, the significance of their carbon storage and sequestration capacity — now commonly referred to as “blue carbon” — is potentially significant in mitigating global climate change, which has led to considerable interest by many countries in incorporating them into their National Greenhouse Gas emissions inventories, as well as developing carbon market mechanisms, that engage local and indigenous communities. Like the Blue Economy there are several lenses through which to consider the Blue Carbon: (i) as a mechanism to move towards lower carbon economies, either through the inclusion of blue carbon in national carbon inventories, or market-based mechanisms that allow industries to offset carbon emissions; (ii) to create economic value through the formulation of carbon (or other services, like nutrient filtration) as a commodity that can be bought and sold, or the creation of wider set of livelihood options, such as tourism and (iii) as a component of a broader set of ecosystem services that are provided by vegetated coastal ecosystems, which has value that might or might not be commodified. All of these rely on the existence of healthy Blue Carbon ecosystems that form the “natural capital” that value is generated from. In this presentation we make the case that Blue Carbon meets all of three of the essential elements of sustainability – economic, environmental and social – and should thus be framed as an essential component of the Blue Economy. Together with the renewable energy sector and carbon capture and storage industries, Blue Carbon is emerging as an industry in its own right that is assisting the global move to progress towards ‘low carbon’ economies whilst creating economic and livelihood opportunity and options, most fundamentally for developing countries, but also for developed countries or established industries. Further progress will depend on the development of sustainable and equitable financial and policy mechanisms that recognise the dependence of the multiple values on the natural capital of the ecosystems.