National Blue Carbon Policy Assessment

Mapping of relevant policies and regulations for coastal carbon management in five countries: From climate change to forestry and coastal marine resource management

ECUADOR SUMMARY

This summary document is based on a larger National Policy Assessment undertaken as part of the UNEP/GEF Blue Forests Project. The goal of these National Policy Assessments (NPAs) is to bring together the key policy, legal and regulatory frameworks and incentives that have an implication for the management of blue carbon ecosystems including items from a perspective of national development, climate change, forestry, and biodiversity, as well as marine resource management.[1]

Coastal carbon ecosystems in Ecuador

Ecuador's **mangroves** provide for a wide range of economically viable environmental services. They form the basis of a nutrient-rich ecosystem that nurtures fish, cockles, mollusks, and crabs, among others, and thus are essential to the livelihoods of large parts of the coastal population. In addition, these forests are sources of timber used for local construction and as fuel. Furthermore, they protect low-lying land from flooding, wind, and erosion.

Ecuador has **just over 157,000 hectares mangrove forests**.[2] The main drivers of mangrove destruction are the expansion of coastal developments (housing, transport, industry, fisheries), agricultural encroachment, and unsustainable timber harvesting and fishing practices. Most damaging, however, has been the steep rise of industrial-scale aquaculture, mainly shrimp farms, since the late 1960s.

No other blue carbon habitat is found in Ecuador, but the emissions from salt flats could be a new area for investigation and inclusion in LULUCF[3] activities.

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[1] See full report for picture credits.

[2] Other sources however suggest smaller numbers. See full report.

[3] Land use, land use change and forestry, as defined under the United Nations Framework Convention on Climate Change (UNFCCC).

Legal protection of mangroves in Ecuador

The **Constitution** of 2008 recognizes peatlands [*páramos*], wetlands [*humelades*] and mangroves [*manglares*] as among those ecosystems that are "fragile and at risk" and mandates the government to "regulate the conservation, management and sustainable use, recovery, and the rights of entitlement [*dominio*]".

Mangroves are considered "forest" vegetation under Ecuadorian law and are an integral part of the country's **REDD+** efforts.

Mangroves are also a "public good" and so are protected under law throughout Ecuador with cutting and exploitation being banned since the 1970s.

Protected Areas have existed in Ecuador since the 1950s including some with mangrove areas. Since 1998 Ecuador formally established the **National System of Protected Areas** – *Sistema Nacional de Areas Protegidas* (SNAP) which today has four sub-systems.

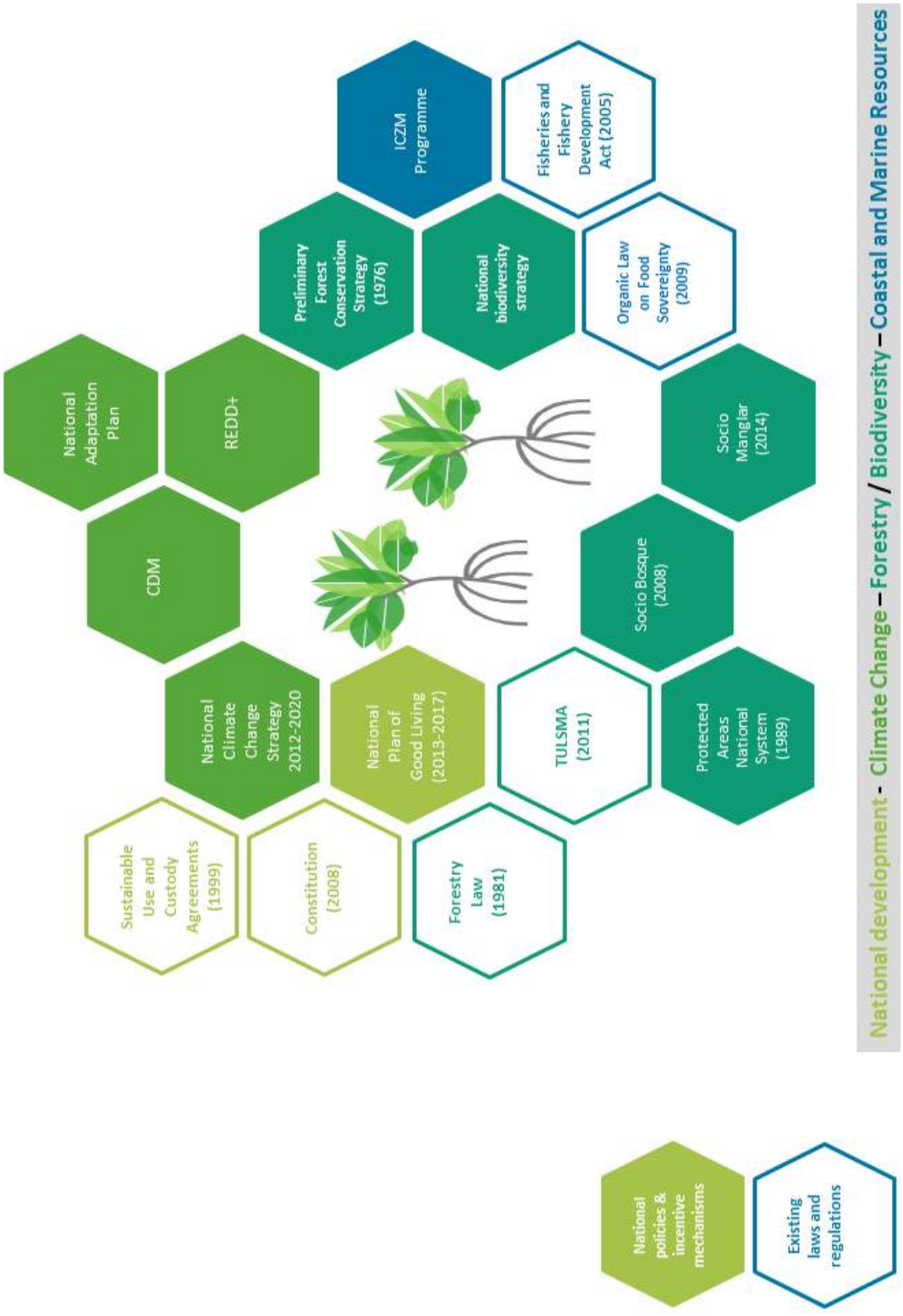
Today, the main protection regime is the **Forestry Code** from 1981 and the **respective secondary legislation ("TULSMA"),** as well as the **Fisheries Act** according to which it is forbidden to destroy or alter mangroves. Note, however, that according to the Food Sovereignty Act, the state has to promote sustainable fisheries and aquaculture production.

The TULSMA states that, "***No entity or state authority may authorize the construction of new shrimp ponds*** *or the extension of existing shrimp farms in the mangrove ecosystem and the transitional zone*" (Art. 54 TULMAS V) (inside and outside protected areas). Usage concession to ancestral communities according to detailed sustainable management plans are possible, but no other concessions can be granted (inside and outside protected areas). Any shrimp pond established before the year 2000, as long as it is located outside the SNAP and as long as the operator commits to marginal reforestation (10%-30%), needs to be regularized.

Policy objectives and incentive schemes for mangroves in Ecuador

Sustainable Use and Custody Agreements (since 1999) are offered to "ancestral communities" which are given, at no direct cost, the right to the use and harvest of a demarcated mangrove area in exchange for a commitment of sustainable management and care (and periodic reporting obligations), as identified in a specific management plan. By early 2016, 62 sustainable use and custody agreements had been given out covering more than 67,460 hectares of mangrove forests (11 agreements had expired by the date of writing).

Socio Manglar (since 2013), as part of *Socio Bosque* Programme (2008): One of the government's key incentive schemes for the protection and sustainable use of mangroves. For mangrove forests, only holders of Sustainable Use and Custody Agreements are eligible. It attempts to have at least 100,000 hectares of mangrove forest under agreement by 2018. By mid-2015, 7,440 hectares of mangrove areas were included in the *Socio Bosque/Socio Manglar* programme in six concessions with an annual incentive of US$ 102,322 (García 2015).



Existing national laws, policies and initiatives with an impact on blue carbon ecosystem management.

National Plan of Good Living - *Plan Nacional para el Buen Vivir* (2013-2017): Formulation of twelve national objectives, three of which make reference to the country's coastal ecosystems:

- Objective No. 5: Commitment to the principle of sustainable management of forests, including wetlands and mangroves, the precautionary principle, access to resources for priority groups, and the capacity to respond to the impacts of climate change.
- Objective No. 7: Guarantees the "rights of nature" and commits the government to protect the environment and to take into account the "priorities for conservation and environmental management of coastal and marine territories.
- Objective No. 10: Promotes sustainable production and use of resources in agriculture, aquaculture, and fisheries, and highlights the need for the strengthening and diversification of coastal production and harvesting activities.

National Biodiversity Strategy and Action Plan (NBSAP): The current strategy (2001-2010) has not been implemented in its entirety due to several shortcomings. Ecuador has revised the NBSAP for the next 10 years in order to address new and emerging problems, threats and trends. The document has yet to be approved by the authorities.

The **Integrated Coastal Zone Management** (ICZM) programme for Ecuador is an example of a well-planned regionalized approach. Not much is known, however, about the inclusion of "blue carbon" into the planning and decision-making process.

REDD+: Ecuador participates in REDD Early Movers Program. It joined the group of REDD+ readiness countries after submitting forest reference emission levels to the UNFCCC on 27 March, 2015, although without considering soil carbon. The actual REDD national strategy is yet to be adopted, and on-the-ground REDD+ activities have not yet been implemented.

National Adaptation Plan: In the National Climate Change Strategy (2012-2020), the Ecuadorian Government will announce the adoption of a National Adaptation Plan after acknowledging that the loss of mangroves threatens the reproduction of fish and crustaceans. At the time of writing, this plan has not yet been issued.

Main challenges

Deforestation is ongoing: The ban on shrimp farm expansion is not coherently enforced, largely due to the lack of personnel and capacity within the Ministry of Environment. The legacy of ex-post shrimp farm regularization may weaken legal bans.

Aquaculture has traditionally been under-regulated, helping spread diseases and undermining efficient planning in mangroves. Reforestation commitments are not consistently followed-up and environmental licenses are not traced throughout the production and marketing cycle.

Restoration efforts are sporadic. There is no coherent shrimp pond conversion and/or re-vegetation policy in place (concerning, for example, closure of shrimp ponds, mandatory reforestation for unused shrimp ponds, etc.) Publicly available information on reforestation activities is scarce. In-depth research could highlight further opportunities.

The importance of mangroves for climate change **adaptation** has not yet triggered concrete policy planning. The Climate Change Strategy 2012-2025 acknowledges the relevance of mangroves for climate adaptation and announces the adoption of a National Adaptation Plan, however the document is outstanding.

A key challenge is **data availability.** Robust and up-to-date mapping details are hard to obtain. The total number of mangroves as well as deforestation rates are contested and different sources provide different numbers.

Conflicting mandates and lack of law enforcement hamper progress. The Ministry of Environment does not have robust powers concerning shrimp farm concessions in mangrove areas as the Ministry of Agriculture, Cattle, Aquaculture and Fisheries has the authority to regularize any shrimp pond established before the year 2000.

Main opportunities

Sustainable Use and Custody Agreements and ***Socio Bosque*** have shown considerable potential for mangrove conservation. Simplification of the process and renewal arrangements may help to enhance the roll-out and the linkage of REDD+ and *Socio Bosque/Manglar* could be beneficial as well. Long-term technical support for the management of the concessions as well as with reporting or other administrative duties could provide the needed support to local communities. This could be provided by, for example, NGOs or universities.

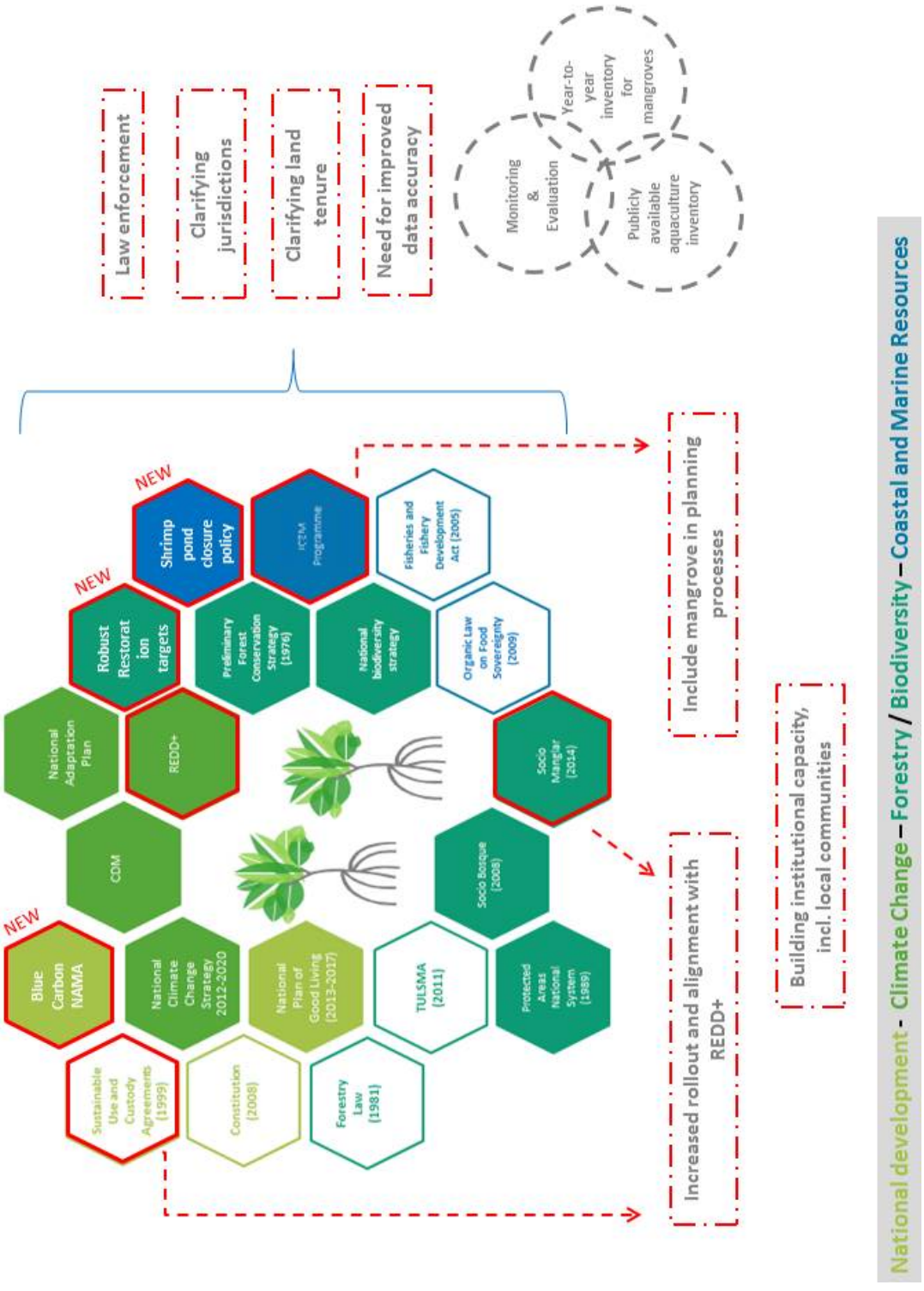
A combination of ***Socio Manglar*** and a project-carbon-based approach, extending explicitly to mangrove reforestation, within the framework of an internationally supported **NAMA** may be an appropriate and effective way forward.

Public-private partnerships with the shrimp farm industry (big producers, mid-level producers and small ones) could be intensified towards more sustainable value-chain products. The continuous improvement of shrimp farm management operations could help to reduce pressure on remaining mangroves.

While distinct case studies show that local restoration efforts are underway, the government has an opportunity to pronounce overall **restoration targets** and to work to put a policy in place to support the re-conversion of old and/or abandoned shrimp ponds to mangrove forest.

The development of a **revised NBSAP** has the opportunity to 1) highlight the role of mangroves for climate change mitigation (and adaptation); 2) to highlight the economic value of mangroves and their contribution to sustainable development, education and health; and 3) to ensure the management of mangroves is addressed in a cross-cutting manner, via the various laws and initiatives available in Ecuador.

Increased monitoring on the implementation of **ICZM** in coordination with **year-to-year inventories of mangroves** would help identify synergies and gaps with coastal carbon and climate policy making.



Opportunities within existing national laws, policies and initiatives with an impact on blue carbon ecosystems management