



OPONE | OCEAN INSIGHTS

MONTHLY MARITIME BRIEF

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SOMALIA'S BLUE CARBON OPPORTUNITY

*Turning Coastal Ecosystems into Climate Resilience,
Fisheries Value and Future Finance*

Special Focus

Blue Carbon

Country: Somalia

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Mohamed Osman Abdulkadir

Co-Founder and Chairman of OPONE

01 | Executive Brief

Somalia's coastline contains coastal ecosystems with potential value far beyond their environmental function.

Mangroves, seagrasses and coastal wetlands can simultaneously support:

- Carbon storage
- Fisheries productivity
- Coastal protection
- Biodiversity
- Food security
- Community livelihoods
- Climate adaptation
- Potential climate finance

Somalia's own Blue Economy framework recognizes carbon sequestration as an emerging opportunity, but also identifies a fundamental constraint: the country lacks sufficient data across many maritime sectors to support investment and evidence-based decision-making.^[8]

Somalia's blue-carbon opportunity is real, but the first investment should be in knowledge, measurement and governance — not in selling carbon credits.

02 | Why Blue Carbon Matters Now

The timing is becoming particularly important.

Somalia's NDC 3.0 recognizes blue carbon storage within the fisheries and coastal/marine environment sector and connects climate action with long-term carbon-neutral development and climate-finance mobilisation. Within that submission, Somalia has attached an indicative \$3 billion financing target to the combined coastal, marine-environment and fisheries programme area that blue carbon sits inside.^[5]

Somalia is also one of relatively few countries to treat blue carbon as both mitigation and an adaptation measure in its NDC — a framing shared with a short list of coastal states that includes the Maldives, Seychelles and Sri Lanka.^[15]

Meanwhile, Somalia is developing its carbon-market architecture. Reporting in early 2026 describes the Ministry of Environment and Climate Change, working with institutions such as the Somalia Development and Reconstruction Bank, as having completed a national readiness assessment identifying priority actions to unlock carbon finance. Somalia had, by that point:^[6]

- Completed an Article 6 readiness assessment
- Established a Designated National Authority
- Begun developing National Voluntary Carbon Guidelines
- Initiated work on an Article 6 policy framework

- Begun addressing governance, authorization and benefit-sharing arrangements

The next phase is expected to bring a national carbon-market strategy, a carbon registry and digital MRV systems. Somalia is also one of eight countries — alongside Burundi, Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda — in the Eastern Africa Alliance on Carbon Markets and Climate Finance, a coalition built to pool regional capacity for carbon-market participation and NDC implementation. ^{[6] [7]}

This creates a potentially important policy window for coastal and marine climate finance — though independent analysts still class most African Article 6 systems, Somalia's included, as early-stage: a Designated National Authority in place, but authorization and registry infrastructure still under construction. ^[16]

03 | Somalia's Blue-Carbon Assets

1. Mangroves — Immediate Priority

Mangroves should be Somalia's first major blue-carbon research and demonstration priority. They provide a rare combination of value across five dimensions at once:

- Carbon
- Fisheries
- Coastal protection
- Livelihoods
- Biodiversity

Current mapping indicates important mangrove formations in southern and central Somalia, including the Juba estuary and Bajuni Islands, with more dispersed stands reported along parts of the northern coast, including Zeylac, Berbera, Xabo and Caluula. These locations should be treated as priority areas for assessment, not as confirmed carbon-credit inventories.

2. Seagrass — Strategic Research Priority

Somalia's seagrass ecosystems could provide significant ecological and economic value through carbon storage, fish habitat, biodiversity, sediment stabilization and coastal resilience. The immediate gap is measurement. Before commercializing seagrass carbon, Somalia needs credible information across the full chain:

Area → Species → Biomass → Sediment Carbon → Degradation → Restoration Potential

3. Coastal Wetlands

Other coastal ecosystems should be investigated through national mapping and field surveys. The guiding principle should remain the same across every ecosystem class:

Measure first. Monetize second.

04 | Deep Dive: The Bajuni Archipelago

The Bajuni Islands are named repeatedly across Somalia's coastal literature as one of the country's richest blue-carbon and fisheries landscapes. They deserve a closer look than a single line on a priority map.

Geography

The archipelago is a chain of low-lying coral islands off the southern Somali coast, within the Lower Juba region, running roughly from Kismayo south toward Ras Kamboni near the Kenyan border. ^[10]

Six main islands make up the chain:

Island	Area	Notes
Koyama	6.38 km ²	Largest island; scrub and palm cover
Chovaye (Tovai)	5.46 km ²	Second-largest; fringing reef access
Chandra	2.95 km ²	Northern end of the chain
Ngumi	2.56 km ²	Tidal-flat and mangrove fringe
Chula (Tula)	1.99 km ²	Only permanently inhabited island; village of Ndowa
Darakasi	1.99 km ²	Southernmost of the six main islands

Sources: geographic data compiled from published references on the Bajuni Islands. ^[10]

Ecology

A fringing barrier reef lies a short distance offshore, creating a protected sound between the islands and the mainland. Around this reef-lagoon system sits a braided, channelized coastal area formed by the drowning of an old river network — three wide channels bordered by tidal flats and mangrove thickets, with mangroves concentrated along the tidal belts of the channels and salt flats further inland. ^[9]

This combination — reef, lagoon, mangrove-lined channel and salt flat — is precisely the mix of blue-carbon habitat types this brief has flagged as Somalia's highest research priority. It also places the Bajuni system within the wider East African mangroves ecoregion, an area spanning Somalia, Kenya, Tanzania and Mozambique that conservation bodies classify as critical or endangered, with less than half of its remaining mangrove area under any form of protection. ^[11]

Community

The islands are home to the Bajuni, a Bantu, Swahili-speaking community with a long tradition of artisanal fishing and dhow navigation; the great majority of Bajuni today live across the water in coastal Kenya, with a smaller population remaining in Somalia itself. ^[12]

OPONE View: The Bajuni Archipelago combines Somalia's strongest reef-mangrove-seagrass complex with an intact traditional fishing culture. Any blue-carbon project here has to be designed around Bajuni customary fishing and resource-use practice, not layered on top of it.

As with every landscape in this brief, these are opportunity-screening observations, not a confirmed carbon inventory. The next step for Bajuni specifically is a dedicated field assessment covering reef extent, mangrove cover change over time, seagrass distribution and current community fishing patterns.

05 | The Jazeera Signal

One of the strongest signals that blue-carbon development can connect environmental restoration with community resilience is emerging from Jazeera District.

UNDP reports that community-based mangrove restoration is underway through collaboration involving the Government of Somalia and the Observatoire du Sahara et du Sahel, with residents and internally displaced people participating in restoration and management. ^[3]

The significance goes beyond trees. Healthy mangroves support marine life and fisheries while protecting coastlines from erosion and extreme weather. Restoration can therefore contribute simultaneously across the following chain:

Environmental Recovery → Fisheries → Livelihoods → Resilience → Social Cohesion

Jazeera could consequently serve as an important blue-carbon demonstration landscape, subject to proper baseline, additionality and carbon-accounting assessment. It sits alongside a wider push: in early 2026 UNDP and the Federal Ministry of Environment and Climate Change also launched a GEF-funded national biodiversity programme targeting more than 6,500 hectares of degraded land restoration and legal protection for Somalia's first post-war network of protected areas, with an estimated 888,869 tonnes of CO₂-equivalent absorption expected as a result. ^[4]

06 | From Carbon to Blue Economy

The biggest mistake would be to treat blue carbon as a simple, linear transaction:

Mangroves → Carbon Credits → Revenue

The stronger model recognizes that a coastal ecosystem generates value across a much wider set of outcomes before any revenue is realized:

- Carbon storage
- Fisheries habitat
- Coastal protection
- Biodiversity
- Community livelihoods
- Climate resilience
- Multiple finance opportunities

This is why blue carbon belongs inside Somalia's Blue Economy strategy, rather than being treated as an isolated carbon-market activity.

07 | The Carbon-Market Window

Somalia is developing the institutional architecture required to participate in international carbon markets. But this is precisely where caution is required. A credible Somali blue-carbon project will need to address:

- Carbon rights / Leakage
- Land / resource tenure / MRV
- Community participation / Verification
- Benefit sharing / National accounting
- Additionality / Double counting
- Permanence / Article 6 authorization

The Government's current Article 6 policy-development process explicitly includes environmental integrity, stakeholder engagement, governance and benefit sharing.

OPONE View: The opportunity should be governed before it is monetized.

08 | What the Data Is Telling Us

A major challenge across Somalia's maritime economy is the shortage of reliable data. Somalia's national Blue Economy Assessment identifies inadequate maritime data as a major constraint to policy, investment and sector planning, and specifically calls for stronger systems to acquire, aggregate and monitor data.^[8]

This is not only a problem. It is also an opportunity. There is a clear role for a new generation of ocean intelligence infrastructure, combining:

Satellite Data + GIS + Field Research + Fisheries Data + Climate Data + Community Observations

Together, these can create the evidence base required for better investment decisions.

09 | Blue Carbon × Fisheries

This connection deserves particular attention, and the most recent Somalia-specific evidence is more nuanced than a simple story of climate harm.

A 2026 econometric study modeling 42 years of Somali fishery data (1981–2022) found that rising temperature and wind speed are currently associated with higher fishery yields, not lower ones — a 1% increase in each is linked to roughly a 2.2% and 1.5% rise in catch respectively, consistent with stronger monsoon-driven coastal upwelling feeding the food chain. The threat identified by the same study runs through a different channel: a 1% rise in CO2 emissions correlates with a 0.17% decline in fishery production, which the authors attribute to acidification-linked stress on primary productivity, and the artisanal fleet's limited ability to fish safely through monsoon turbulence remains a separate, practical constraint on translating good ocean conditions into landed catch.^[13]

A companion 2026 literature review of Somalia's artisanal fisheries reaches a complementary conclusion at the regional scale: warming seas, marine heatwaves, ocean deoxygenation and shifting upwelling patterns across the Gulf of Aden, the northern upwelling zone and the southern coast are expected to alter fish availability and seasonal fishing patterns over time, and these pressures compound with illegal, unreported and unregulated foreign fishing and weak governance to raise livelihood and food-security risk for coastal communities.^[14]

For blue carbon specifically, the practical takeaway is unchanged: mangroves function as fish nursery habitats, and seagrasses provide important marine habitat. Healthy coastal ecosystems support the biological base of the fishery even where the climate signal on catch itself is mixed — which is one more reason to treat ecosystem restoration as an economic resilience investment, not only an environmental one.

10 | The Opportunity Map

For the coming stage, OPONE recommends a national Somalia Blue Carbon Opportunity Map, anchored on the following priority research landscapes:

Landscape	Initial Focus	Priority
Jazeera	Mangrove restoration + carbon feasibility	High
Bajuni Islands	Mangrove + seagrass + fisheries	High
Juba coastal system	Mangroves + wetlands	High
Central coast	Coastal ecosystem assessment	High
Puntland coast	Mangrove / seagrass mapping	High
Northern Gulf of Aden coast	Mangrove + seagrass assessment	Research

These are opportunity-screening priorities — not estimates of carbon stocks or future credit volumes. See Section 04 for a closer look at Bajuni specifically.

11 | What Should Happen Next?

OPONE recommends a simple, disciplined sequence:

1. MAP	Identify coastal ecosystems.
2. MEASURE	Establish carbon and ecological baselines.
3. PROTECT	Secure high-value ecosystems.
4. RESTORE	Rehabilitate degraded ecosystems.
5. GOVERN	Establish rights and benefit-sharing mechanisms.
6. VERIFY	Build credible MRV and independent verification.
7. FINANCE	Connect qualified projects to climate and carbon finance.

8. SCALE

Build a national portfolio.

12 | OPONE Maritime Outlook

Our assessment across the dimensions that matter most for near-term decision-making:

Dimension	Outlook
Natural Potential	Strong
Policy Relevance	Strong
Carbon-Market Readiness	Emerging
Scientific Baseline	Weak
MRV Capacity	Developing
Community Opportunity	Strong
Immediate Investment Readiness	Limited
Long-Term Strategic Potential	High

OPONE OUTLOOK: POSITIVE — WITH CONDITIONS

The opportunity should be pursued, but Somalia should resist the temptation to announce large carbon volumes or financial returns before the underlying science exists.

13 | The OPONE Position

OPONE sees an opportunity to build something larger than a carbon-credit project:

SOMALIA BLUE CARBON INTELLIGENCE

A platform connecting:

- Ocean data
- Coastal research
- Ecosystem restoration
- Carbon & climate finance
- Blue Economy investment

This fits directly within OPONE's broader Ocean Insights mandate: turning Somalia's ocean information into knowledge, opportunities and investment intelligence.

14 | This Month's Takeaway

Somalia should not ask first, "How many carbon credits can our coastline generate?"

The better question is:

What coastal natural capital do we have, what condition is it in, who depends on it, and how can we protect and finance it?

Answering that question properly could unlock much more than carbon revenue. It could help build a more resilient:

- Fisheries sector
- Coastal economy
- Climate strategy
- Community livelihood system
- Blue Economy investment pipeline

15 | References & Sources

This edition draws on the following primary and secondary sources. Figures and findings are paraphrased from the originals; readers who need exact wording or methodology should consult the source directly.

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Focus: Somalia's Blue Carbon Opportunity

Theme: Know the Ocean. Understand the Opportunity.

About the Author

Mohamed Osman Abdulkadir

Co-Founder and Chairman of OPONE

Agrifood & Blue Economy Entrepreneur | Fisheries & Ocean Value Chains | Climate Resilience | Building Sustainable Opportunities across Somalia & East Africa

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