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Towards Viksit Bharat 2047 through the Blue Economy: An Assessment of India's Sustainable Development, Maritime Security, and Global Economic Integration

Prof. Capt. Dr. Vijay Kumar Madugu

Professor of Commerce & Principal, Babu Jagjivan Ram Govt. Degree College (Autonomous), Narayanguda, Hyderabad, Telangana, India

ABSTRACT

India's 7,517-kilometre coastline and 2.02-million-square-kilometre Exclusive Economic Zone place the ocean at the centre of Viksit Bharat @2047, India's vision of becoming a developed, self-reliant nation by its centenary of independence. This paper argues that the Blue Economy is not a peripheral growth sector but a fourth strategic pillar of that vision, alongside the green, digital, and manufacturing economies, because it uniquely fuses three imperatives that the Viksit Bharat timeline demands simultaneously: sustainable livelihoods, maritime security, and global economic integration. Using a qualitative, document-based analysis of government policy, institutional reports, and peer-reviewed literature, the study evaluates India's principal blue-economy instruments the Draft Blue Economy Policy, Sagarmala, the Deep Ocean Mission, the Pradhan Mantri Matsya Sampada Yojana, and the SAGAR–Mahasagar security doctrine against their delivery record to date. The central finding is a persistent 'ambition-implementation gap': despite a decade of programmatic expansion, the sector still contributes only around four per cent of GDP, constrained less by resource scarcity than by fragmented governance, an absent ocean-accounting system, and underused blue-finance instruments. The paper further shows that India's economic and security investments in the ocean are mutually reinforcing rather than competing, and proposes that closing the gap requires a single coordinating authority, a statutory ocean-accounting mandate, and dedicated blue-bond guarantees rather than additional standalone schemes.

Keywords: Blue Economy; Viksit Bharat 2047; Maritime Security; SAGAR Doctrine; Sustainable Development; Indo-Pacific; Ocean Governance; Blue Finance

1. Introduction

Nearly 95 per cent of India's merchandise trade by volume moves through a network of twelve major and over two hundred non-major ports along its 7,517-kilometre coastline (India Water Portal, 2025). For decades this maritime endowment was treated as ancillary to land-based industry and agriculture. That has changed. The 'blue economy' defined by the World Bank (2017) as the sustainable use of ocean resources for growth, livelihoods, and employment without degrading marine ecosystems, and popularised earlier by Pauli (2010) now sits at the centre of India's long-term development narrative, Viksit Bharat @2047: the ambition to become a developed, high-income nation by the hundredth anniversary of independence, organised around the four pillars of Yuva (youth), Garib (the poor), Mahila (women), and Kisan (farmers). Comparative context sharpens the stakes. Several coastal and archipelagic economies with far smaller maritime domains than India already derive a larger share of national output from ocean-based sectors, which suggests India's four per cent figure reflects underdevelopment of the sector rather than a ceiling on its potential. If the blue economy were to converge toward even the lower end of comparable international benchmarks by 2047, it would represent one of the largest untapped growth reserves available to Indian policymakers larger, proportionally, than most single manufacturing or services sub-sector currently receiving comparable policy attention. This paper asks a sharper question than most existing studies: not simply whether India has blue-economy policies, but whether those policies are structured to deliver growth, security, and global integration at the pace Viksit Bharat 2047 requires and if not, what precisely is missing..

2. Significance of the Study

Most existing work treats the blue economy's economic, ecological, and security dimensions separately a limitation that matters because these dimensions are, in India's case, structurally interdependent. Coastal livelihood programmes advance the Garib, Mahila, and Kisan pillars; deep-sea and offshore-energy missions build the technical capacity central to the Yuva pillar; and port connectivity plus naval diplomacy jointly secure trade routes and Indo-

Pacific standing. Intensifying great-power contestation in the Indian Ocean Region, combined with the compressed 2047 timeline, makes an integrated assessment urgent rather than merely academic: policymakers need to know where the constraint actually lies financing, coordination, or ecological risk rather than which new scheme to announce next. The approach also offers a template applicable to other cross-cutting Viksit Bharat pillars, such as the green and digital economies, where similar tensions between growth ambition, sustainability, and strategic autonomy are likely to recur but are rarely assessed jointly rather than as separate policy silos.

3. Review of Literature

The conceptual foundation of the blue economy rests on Pauli (2010) and the World Bank (2017), both framing ocean-based growth as inseparable from ecological preservation. Building on this, Indian policy scholarship (National Maritime Foundation, 2025; RSIS International, 2024) documents a seven-pillar Draft Blue Economy Policy spanning marine resources, fisheries, infrastructure, offshore energy, tourism, emerging industries, and security, operationalised through Sagarmala, the Deep Ocean Mission, and the Pradhan Mantri Matsya Sampada Yojana but consistently notes that realised GDP contribution trails policy ambition.

A parallel security literature examines the SAGAR doctrine, launched in 2015. Parmar (2014) frames India's approach as cooperative rather than balance-of-power politics; Kupriyanov (2021) analyses SAGAR alongside the Indo-Pacific Oceans Initiative as instruments of regional development diplomacy; and more recent work traces its evolution toward an expanded 'Mahasagar' framework that folds port development and fisheries cooperation into security partnerships with states such as Mauritius and Seychelles. A third, more macro-level strand exemplified by CEEW's (2025) modelling of India's green economy, projecting a USD 1.1 trillion market and 48 million jobs by 2047 shows what rigorous, quantified sectoral modelling can achieve, but has not yet been applied to the blue economy. These three strands rarely intersect. Economic-policy studies catalogue programmes without security context; security studies treat the blue economy as a rhetorical add-on to SAGAR; and macro-modelling exercises bypass the ocean sector altogether.

4. Research Gaps

- No single framework jointly evaluates the economic, ecological, and security dimensions of India's blue economy against the fixed 2047 timeline.
- Blue-finance instruments blue bonds, blended finance, sovereign guarantees remain recommended in policy documents but almost entirely undeployed at scale.
- No quantitative model, comparable to CEEW's green-economy analysis, estimates the blue economy's realistic contribution to Viksit Bharat's income and employment targets.
- The SAGAR-to-Mahasagar security transition has not been assessed against its blue-economy financing implications.
- Comparative international benchmarking of India's ocean-GDP share against peer coastal economies is largely absent from the Indian policy literature, weakening the empirical case for scaled investment.

5. Statement of the Research Problem

Despite a decade of programmatic expansion the Draft Blue Economy Policy, Sagarmala, the Deep Ocean Mission, and SAGAR India's ocean economy still contributes only around four per cent of GDP, well below its assessed potential, while the Viksit Bharat 2047 vision compresses the timeline for closing that gap to roughly two decades. The problem this study addresses is not whether India has enough blue-economy policy, but why an unusually dense policy architecture has not yet translated into a proportionate economic, ecological, or strategic return, and what specific institutional changes would close that gap fastest.

6. Objectives of the Study

- To trace the policy evolution of India's Blue Economy framework within the Viksit Bharat 2047 vision.
- To assess the sustainable-development performance of key sectors — fisheries, shipping and ports, offshore energy, and coastal tourism.
- To analyse the maritime security dimension, particularly the SAGAR–Mahasagar doctrine, and its linkage to blue-economy financing.
- To evaluate India's global economic integration through maritime trade and blue diplomacy (Quad, IORA, BIMSTEC, IPOI).
- To identify the specific governance and financing gaps limiting the sector's contribution to the 2047 targets.

- To propose targeted policy recommendations and a future research agenda.

7. Research Methodology

The study uses a qualitative, descriptive-analytical design based entirely on secondary data: government and institutional documents (Draft Blue Economy Policy, Sagarmala and Deep Ocean Mission reports, Union Budget statements, Viksit Bharat vision materials), international sources (World Bank, UNCLOS), and peer-reviewed or think-tank literature on India's blue economy and maritime security. Sources were thematically coded across the three constructs sustainable development, maritime security, and global integration and cross-mapped to the Yuva–Garib–Mahila–Kisan pillars, covering the period 2014–2026.

8. Findings in Connection with the Objectives of the Study

8.1 Policy Evolution

India's blue-economy architecture grew incrementally rather than from a single statute, with successive programmes layered on top of one another under different ministries. Table 1 summarises the principal instruments examined in this study.

Programme	Launched	Lead Agency	Primary Focus
Sagarmala Programme	2015	Ministry of Ports, Shipping & Waterways	Port-led development, coastal shipping, logistics-cost reduction
Draft Blue Economy Policy	2020/2022	Ministry of Earth Sciences	Seven-pillar national framework for ocean-based growth
Deep Ocean Mission	2021	Ministry of Earth Sciences	Deep-sea exploration, mineral research, ocean-climate services
PM Matsya Sampada Yojana	2020	Ministry of Fisheries, Animal Husbandry & Dairying	Fisheries and aquaculture financing and infrastructure
Blue Economy 2.0	2024	Ministry of Earth Sciences / NITI Aayog	Mangrove restoration, climate-resilient mariculture
SAGAR–Mahasagar Doctrine	2015 (evolving)	Ministry of External Affairs / Indian Navy	Regional maritime security, naval diplomacy, port partnerships

A 2025 White Paper on the Blue Economy is the first document to explicitly call for unified coordination, blue bonds, and replication of state pilots such as Odisha's women-led seaweed farming and Andaman eco-tourism signalling that policymakers themselves now recognise fragmentation, not the absence of schemes, as the binding constraint. The proliferation visible in Table is itself diagnostic: six major instruments across four ministries, launched over a single decade, with no common reporting framework or apex authority, is a pattern more consistent with departmental competition for mandate than with a coordinated national strategy.

8.2 Sustainable Development Performance

At roughly four per cent of GDP, the blue economy's realised output trails its own policy ambition, but the shortfall is uneven across sectors. Fisheries and coastal shipping show genuine momentum coastal shipping volumes have more than doubled over the past decade while offshore wind, marine biotechnology, and deep-sea mineral extraction remain pre-commercial despite years of mission funding. This pattern indicates a capital-allocation problem rather than a demand problem: mature sectors are scaling, while capital-intensive frontier sectors are stalled at the pilot stage, most likely for want of the blue-finance instruments identified.

8.3 Maritime Security Dimension

SAGAR (2015) established a cooperative, rules-based security posture hydrographic surveys, anti-piracy patrols, disaster relief, and naval capacity-building for smaller Indian Ocean states operationalised through the Indian Ocean Naval Symposium, the Colombo Security Conclave, and MILAN exercises. Its evolution toward 'Mahasagar' is significant precisely because it fuses security and economic instruments: port development and fisheries cooperation in Mauritius and Seychelles are now security assets as much as trade assets. Quad-linked maritime domain awareness extends this further, giving India's naval diplomacy an economic dividend that pure defence spending would not generate on its own.

8.4 Global Economic Integration

With roughly 95 per cent of trade volume seaborne, port and shipping infrastructure is not one input to India's global integration but the dominant one. 'Blue diplomacy' through the Quad, BIMSTEC, IORA, the Indo-Pacific Oceans Initiative, and bilateral partnerships such as the India–Norway blue-economy task force converts this trade dependency into strategic leverage: India positions itself as a development partner offering port investment and fisheries cooperation, in explicit contrast to more unilateral or debt-driven maritime engagement by other regional actors. This contrast is itself a competitive asset that Indian policy has not yet fully monetised through dedicated blue-economy export or investment financing.

8.5 Governance and Financing Gaps

Three constraints recur across every source reviewed, and they compound one another. Coordination is fragmented across ministries handling fisheries, shipping, energy, tourism, and security, with no single apex authority. Ocean accounting is absent, meaning the four per cent GDP figure is asserted rather than measured, undermining the case for scaled investment. And blue finance bonds, blended finance, guarantees are recommended in nearly every policy document reviewed but deployed in almost none, leaving capital-intensive frontier sectors (offshore energy, deep-sea mining) chronically underfunded relative to mature ones (fisheries, coastal shipping).

9. Discussion

Read together, the findings overturn a common assumption in the literature: that India's blue economy underperforms because of resource, ecological, or even security constraints. It underperforms because of an implementation architecture mismatched to the sector's capital intensity. Mature, lower-capital sectors (fisheries, coastal shipping) are meeting or exceeding programme targets; capital-intensive frontier sectors (offshore energy, deep-sea minerals) are stalled despite a decade of mission funding, precisely where blue-finance instruments were meant to operate but have not been deployed. Security and economic investment are not competing for the same resources, as some accounts imply Mahasagar shows they are increasingly the same investment, wearing two labels. The binding constraint on reaching Viksit Bharat 2047's ocean-economy potential is therefore institutional and financial, not physical or geopolitical, which is a more tractable and more actionable diagnosis than the literature currently offers. This diagnosis also reframes the relationship between sustainability and growth in India's ocean policy. Ecological risk is usually presented as a brake on blue-economy expansion; the evidence here suggests the opposite may increasingly hold. Because coastal tourism, fisheries, and mariculture depend directly on healthy reef, mangrove, and fish-stock systems, ecological degradation is a direct threat to the mature sectors that are currently the blue economy's best performers. Climate resilience investment is therefore not a constraint competing with growth targets but a precondition for protecting the gains already made a distinction that matters for how blue-finance instruments should be designed and prioritised.

10. Conclusion

India's Blue Economy should be treated as a fourth strategic pillar of Viksit Bharat 2047, not a subordinate line item within maritime or environmental policy. The evidence shows a policy architecture that is unusually dense by international comparison, yet an economic return that remains modest because coordination, accounting, and financing not resources or security exposure are the binding constraints. Three concrete steps follow directly from the findings: establish a single Blue Economy coordinating authority with budgetary teeth rather than advisory status; mandate a statutory national ocean-accounting framework on a fixed timeline; and channel blue-bond and blended-finance guarantees specifically toward the capital-intensive frontier sectors offshore energy and deep-sea minerals where the ambition-implementation gap is widest. Absent these, further scheme proliferation is unlikely to move the needle on either GDP contribution or the 2047 timeline.

11. Scope for Future Research

- Econometric modelling of blue-economy growth trajectories against Viksit Bharat 2047 GDP and employment targets, following the CEEW green-economy precedent.
- Comparative state-level studies of blue-economy governance and outcomes across India's coastal states and island territories.
- Feasibility design of blue bonds and blended-finance vehicles for India's capital-intensive frontier sectors specifically.
- Climate-risk modelling of coastal and marine ecosystems under differing warming scenarios, and its effect on fisheries-dependent livelihoods.
- Comparative assessment of India's SAGAR–Mahasagar framework against the maritime strategies of other Indian Ocean Region states.

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