EXPLORING THE OUTCOMES OF BANGLADESH'S MARITIME SETTLEMENTS WITH NEIGHBOURING NATIONS

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Abstract

Following its independence in 1971, Bangladesh embarked on a quest to establish its maritime rights, culminating in historic maritime settlements with Myanmar and India through the International Tribunal for the Law of the Sea (ITLOS) and the Permanent Court of Arbitration (PCA) in 2012 and 2014, respectively. These landmark judgments resolved longstanding disputes by delineating maritime boundaries, enabling Bangladesh to pursue the exploration and sustainable exploitation of offshore resources, including significant natural gas fields. These successes not only bolstered economic prospects and bilateral relations but also set a benchmark for regional maritime cooperation. Despite these victories, Bangladesh faces challenges in leveraging its maritime gains fully, hindered by gaps in government initiatives, technical know-how, and global collaboration. Addressing these challenges requires making Production Sharing Contracts (PSC) more appealing to International Oil Companies (IOCs), conducting thorough geological surveys, and implementing durable legal and regulatory frameworks to ensure sustainable and equitable offshore development. These strategic research moves are crucial for Bangladesh to maximize its maritime potential, promising a transformative impact on its economic landscape and securing long-term prosperity and energy security.

Key words- Judgement of ITLOS, Award of PCA, Initiatives of Bangladesh, Success, Failure and Recommendations.

BACKGROUND

Bangladesh, as the coastal state of the Bay of Bengal, has inherited numerous privileges under the United Nations Convention on the Law of the Sea (UNCLOS) (UN, 1982). Since gaining independence in 1971, Bangladesh has faced maritime demarcation disputes with neighbouring countries (Alam & Faruque, 2009). Following independence, in 1974, Bangladesh enacted its Territorial and Maritime Laws, marking the first legislation of its kind in South Asia for individual state maritime management (Hosen, 2023). While this enactment addressed internal law and order, due to its nature¹ it lacked enforceability concerning neighbouring states' conduct regarding shared and adjacent maritime boundaries. Dissatisfaction with neighbouring states Myanmar and India persisted until the first decade of the 21st century, eventually leading to bilateral negotiations and mutually agreed-upon agreements (Hossain et al., 2021).

However, neighbouring countries consistently exhibited threatening behaviour towards Bangladesh whenever it initiated exploration activities near their adjacent boundaries. In 2009, Bangladesh sought resolution through the ITLOS to settle its dispute with Myanmar, culminating in a resolution in 2012 with active participation from both parties ("Bangladesh/Myanmar ITLOS Case No. 16," 2012). Similarly, dissatisfaction between Bangladesh and India found a more amicable resolution in the PCA in 2014 ("Bangladesh v India PCA Award 2014," 2014). These developments emphasize Bangladesh's efforts to assert its maritime rights within the framework of international law and negotiations, with recourse to legal mechanisms such as ITLOS and PCA for dispute settlement.

THE TRANSFORMATIVE IMPACT OF ITLOS AND PCA JUDGEMENTS

In a landmark judgment by the ITLOS in 2012, Bangladesh marked a significant victory in its maritime dispute with Myanmar, securing a clearly delineated maritime boundary in the Bay of Bengal (Riesenberg, 2012). This was the first boundary dispute ever decided by ITLOS, highlighting the tribunal's commitment to peaceful dispute resolution and equitable solutions (Riesenberg, 2012). This crucial decision provided

¹ The Territorial and Maritime Zones Act of 1974 is a domestic law that does not apply internationally or to bilateral relations, contrasting with international law's role in resolving state conflicts and issues.

both nations with defined maritime zones, including exclusive economic zones (EEZs) and continental shelves, thereby resolving longstanding ambiguities over territorial claims (Qiu & Gullett, 2017).

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The delineation was vital for Bangladesh, enabling it to exercise sovereign rights over its maritime domain, which is essential for the exploration and sustainable exploitation of marine resources, including potentially vast natural gas fields. This resolution not only bolstered economic opportunities by attracting international investment into energy exploration but also fostered improved bilateral relations between Bangladesh and Myanmar, setting a precedent for cooperation in maritime governance, scientific research, and environmental conservation.

Additionally, the establishment of a "grey area" offered a unique solution to jurisdictional overlaps, allowing Bangladesh control over the seabed and Myanmar over the super-jacent waters, showcasing the tribunal's commitment to equitable solutions (Churchill, 2012; Lin & Schofield, 2014). The ITLOS judgment thus stands as a pivotal achievement for Bangladesh, emphasizing the role of legal avenues in peacefully settling complex maritime disputes and promoting regional maritime cooperation and development in the Bay of Bengal (Balaram, 2012).

In another historic resolution achieved through arbitration by the PCA in 2014, Bangladesh significantly advanced its maritime territorial claims against India, a culmination of a long-standing dispute deeply rooted in the complex geopolitical aftermath of the 1947 partition and Bangladesh's subsequent independence in 1971. This critical arbitration under the UNCLOS clarified the maritime boundaries between the two nations across territorial seas, exclusive economic zones (EEZs), and continental shelves, extending beyond 200 nautical miles (Anderson, 2015).

This delineation was a monumental victory for Bangladesh, awarding it control over nearly 80% of the previously contested maritime area, an expanse exceeding 25,000 square kilometres (Pratap, 2015). This not only dissolved decades of contention but also unlocked unprecedented opportunities for Bangladesh to harness its maritime resources, particularly in oil and gas exploration, thereby promising considerable economic upliftment.

The settlement fostered a spirit of cooperation and goodwill, acknowledged by leaders of both nations as a win-win situation, demonstrating the efficacy of diplomatic and legal avenues over conflict. This landmark judgment not only bolstered Bangladesh's position in regional maritime affairs but also set a global precedent for the peaceful resolution of international maritime disputes through legal arbitration (Hosen, 2019).

Through the PCA's fair and transparent process, the resolution underscored the importance of UNCLOS in maintaining global maritime order, emphasizing legal certainty, and promoting economic development and bilateral relations (Wang, 2014). The settlement hence stands as a testament to the rule of law in international relations, marking a significant stride towards regional stability and economic prosperity in the Bay of Bengal (Nemeth et al., 2014).



Map-1: Geographical location of Bangladesh in Bay of Bengal²

² Compiled by the author from Google map and websites.

BANGLADESH'S BOLD STEPS TOWARDS BLUE-ECONOMY GROWTH FOLLOWING ITLOS AND PCA RULINGS

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Following the maritime settlements with neighbouring countries, Bangladesh has emerged as a front-runner in maritime development, launching a series of ambitious initiatives aimed at the offshore development of the nation. Through strategic policy measures and forward-looking activities, Bangladesh is driving the expansion of its blue economy, ensuring the sustainable management of offshore resources not just for itself but also for its neighbouring states.

Initiatives	Descriptions
The Maritime Affairs Unit under the	Established the Maritime Affairs Unit, showcasing commitment to
Ministry of Foreign Affairs	maritime interests and sustainable offshore petroleum exploration.
Establish an ocean-based University and	Created Bangladesh's first maritime university, BSMRMU, aligning
Educational Development	educational development with maritime economic growth.
Bangladesh Delta Plan 2100	Indirectly supports offshore petroleum exploration, emphasizing the
	'Blue Economy' and sustainable marine resource use.
Hosting the Third Indian Ocean Rim	Solidified leadership in the blue economy, with the Dhaka Declaration
Association (IORA) Blue Economy	enhancing regional maritime cooperation.
Ministerial Conference	
Drafted the Model Offshore PSC, 2019.	Provided a legal and operational framework for international contractors
Dianted the Model Offshore F3C, 2019.	in offshore petroleum exploration and development.
8 th Five-Years plan (2021-2025)	·
6 Five-fears plair (2021-2025)	Emphasizes enhancing domestic gas exploration to ensure energy
The Territorial and Maritime Zones	security and leverage geopolitical advancements.
	Updated maritime legislation aligning with UNCLOS, enhancing
(Amendment) Act, 2021.	Bangladesh's sovereignty and marine resource management.
Model Offshore PSC, 2023	Outlined collaboration frameworks for offshore petroleum exploration,
Initiatives in the DIMSTEC	emphasizing environmental protection and sustainability.
Initiatives in the BIMSTEC	Led the approval of the Blue Economy as a BIMSTEC sector, fostering
Constitution the Colonia Constitution	regional maritime resource harnessing.
Completing the Seismic Surveys	Mapped hydrocarbon reserves in the Bay of Bengal, aiming for energy
C. L. State of a ITI OC to Comp. No. 24	self-sufficiency and reduced LNG dependency.
Submission to ITLOS in Case No-31	Highlighted challenges and commitment to combating climate change's
	impact on maritime environments.
Indo-Pacific Strategy	Outlined a vision for maritime development, security, and regional
	cooperation within the Indo-Pacific framework.
NGOs frontlines Engagement	CGS's role in fostering dialogue and shaping Indo-Pacific region strategies
	emphasizes Bangladesh's geostrategic significance.

Table-1. Bangladesh's initiatives after the maritime settlements

i. The Maritime Affairs Unit under the Ministry of Foreign Affairs

Led by Rear Admiral (Retd.) Md. Khurshed Alam³ at the Ministry of Foreign Affairs, the Maritime Affairs Unit plays a crucial role in overseeing Bangladesh's maritime sector, particularly in offshore petroleum exploration, reflecting the nation's commitment to protecting maritime interests and leveraging oceanic resources. Alam's leadership, marked by his presidency of the 26th Session of the International Seabed Authority (ISA) Council (STANDARD, 2020), is instrumental in navigating Bangladesh through key maritime boundary settlements with Myanmar and India, prompting updates to national legislation in alignment with UNCLOS standards. This unit is pivotal in promoting environmental sustainability, safety, and international collaboration within the "Blue Economy" framework, aiming to integrate economic

³ Rear Admiral (retd.) Md. Khurshed Alam Mphil., ndc, psc, BN is the incumbent Secretary (Maritime Affairs Unit) at the Ministry of Foreign Affairs, Bangladesh. He is a former two star Admiral of Bangladesh Navy. He also the chairperson of the IOC Regional Committee for the Central Indian Ocean (IOCINDIO). He also served as the President of the International Seabed Authority (ISA) Council.

development with marine conservation and advocating for the creation of a separate Ministry of Ocean Affairs to ensure comprehensive ocean governance (Alam et al., 2021).

ii. Launch a maritime-focused university and educational initiatives.

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The Bangabandhu Sheikh Mujibur Rahman Maritime University (BSMRMU), established by an Act of Parliament on 26 October 2013, is Bangladesh's first maritime university in the country. It was created to fulfill the country's need for higher maritime education and research, situating itself as a pioneering institution in South Asia and globally. The university's establishment aligns with Bangladesh's broader goals of enhancing its maritime capabilities and leveraging its geographic positioning for economic development. After the adjudications in most of the universities they have incorporated subject and research activities related to these maritime concerns of Bangladesh and globally which wasn't like this before.

iii. Bangladesh Delta Plan 2100

The Bangladesh Delta Plan 2100 (BDP 2100) subtly underpins maritime development, especially in offshore petroleum exploration, within its larger vision of water management, environmental sustainability, and economic growth (Kabir et al., 2022). By championing the 'Blue Economy', it sets a groundwork for leveraging marine resources sustainably, fostering regional collaborations, and upgrading maritime infrastructure, thus facilitating petroleum ventures (Patil et al., 2019). The plan's emphasis on renewable energy, diverse energy policies, and innovation indirectly propels offshore petroleum initiatives. It also emphasizes the need for transboundary water management and cooperation with neighbouring countries on maritime boundaries, crucial for offshore developments (Delta Plan, 2100). Furthermore, its commitment to environmental sustainability and disaster resilience indirectly buttresses the sustainable extraction and use of offshore petroleum, aligning with Bangladesh's aims for economic and energy security within a framework that balances development with ecological preservation (Islam et al., 2018).

Hosting the Third Indian Ocean Rim Association (IORA) Blue Economy Ministerial Conference Hosting the Third Indian Ocean Rim Association (IORA) Blue Economy Ministerial Conference in Dhaka, Bangladesh, on September 4-5 in 2019, Bangladesh solidified its leadership and pivotal role in advancing the blue economy within the Indian Ocean region. This significant gathering, which attracted 22 IORA members, including the Seychelles, was a testament to Bangladesh's commitment to fostering sustainable and inclusive blue economy activities (IORA, 2019b). The conference culminated in the Dhaka Declaration, a unanimous agreement among member states to enhance cooperation and explore the region's vast, untapped blue economy potential. Under the theme 'Promoting Sustainable Blue Economy - Making the best use of opportunities from the Indian Ocean', the event served as a platform for indepth discussions on sustainable practices that promise to propel social and economic growth across the IORA member states. Key focus areas identified included fisheries and aquaculture, renewable ocean energy, seaports and shipping, offshore hydrocarbons, seabed minerals, marine biotechnology, research, development, and tourism (IORA, 2019b). This event not only underscored Bangladesh's proactive approach to leveraging the Indian Ocean's resources for broader regional prosperity but also highlighted its role in orchestrating dialogue and partnership among nations aiming to transition towards more diversified, service-oriented, and knowledge-based blue economies (Chaturvedi, 2022). Through this conference, Bangladesh has notably contributed to setting a collaborative agenda for the blue economy sector's future, emphasizing sustainability, inclusivity, and economic development (IORA, 2019a).

v. Drafted the Model Offshore PSC, 2019.

The draft of the "Offshore Model Production Sharing Contract 2019" with PETROBANGLA⁴ sets a pivotal foundation for advancing Bangladesh's maritime development through structured offshore petroleum exploration and development. It offers a robust framework detailing legal, operational, and financial guidelines for international contractors, focusing on resource extraction within Bangladesh's maritime zones. Emphasizing key areas such as exploration terms, contractor obligations towards environmental protection, and local workforce development, the contract ensures a balanced approach to economic

⁴ PETROBANGLA, the government-owned national gas company of Bangladesh, explores, produces, transports, manages, and sells oil, natural gas, and other minerals, while also partnering with international oil companies through production sharing agreements for the exploration and development of oil and gas resources in Bangladesh.

growth, environmental sustainability, and social responsibility. The inclusion of production sharing terms and strict environmental compliance, including Environmental Impact Assessments (EIA), underscores the contract's commitment to equitable resource distribution and conservation practices. This initiative marks a significant step towards harnessing Bangladesh's offshore petroleum potential in harmony with ecological preservation and economic prosperity. Despite previous execution challenges, the 2023 iteration of the Model Offshore Production Sharing Contract (PSC) introduced new dimensions and inclusions, reflecting a strategic evolution in approach.

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vi. 8th Five-Years plan (2021-2025)

The 8th Five-Year Plan of Bangladesh underscores a strategic focus on boosting domestic gas exploration and development to meet the rising demand for natural gas, advocating for significant investment in tapping into the nation's untapped gas reserves. This initiative is deemed more cost-effective than continuous LNG imports, given the existing LNG FSRU terminals' capacity (Chowdhury & Muhammad, 2020). The plan addresses the exploration challenges in complex regions by recommending advanced technological applications, significant capital investments, and fostering Joint Ventures or Strategic Partnerships with foreign entities through Production Sharing Agreements (Hassan & Ahmed, 2022). The recent clarification of maritime boundaries with countries like Myanmar and India marks a critical stage, broadening the scope for onshore and offshore gas exploration. This comprehensive strategy aims to enhance Bangladesh's energy security and economic growth by leveraging untapped natural gas resources through strategic investments and international cooperation, set against the backdrop of geopolitical advancements.

vii. The Territorial and Maritime Zones (Amendment) Act, 2021.

The "Territorial Waters and Maritime Zones (Amendment) Act, 2021" significantly updates Bangladesh's maritime legislation, aligning it with international norms, specifically the UNCLOS and the decisions of ITLOS and PCA (Hosen, 2023). This reform, necessitated by maritime boundary resolutions with Myanmar and India, enhances Bangladesh's sovereignty over delineated maritime zones—internal waters, territorial sea, contiguous zone, exclusive economic zone (EEZ), and continental shelf. It introduces robust measures for environmental conservation, scientific marine regulation, and marine pollution prevention, while facilitating economic activities and sustainable exploitation of marine resources in accordance with the "Blue Economy" principles. This legislative upgrade marks a strategic advancement in holistic ocean governance, significantly enhancing Bangladesh's capability to manage and protect its maritime resources sustainably, thereby fostering economic development and asserting its commitment to international maritime standards.

viii. Model Offshore PSC, 2023

The 'Bangladesh Offshore Model Production Sharing Contract-2023' revolutionizes the nation's approach to offshore petroleum exploration and development, detailing a collaborative framework between PETROBANGLA, the Government of Bangladesh, and international contractors. This adoption specifies a comprehensive exploration strategy, profit-sharing, and emphasizes environmental protection and safety, ensuring a balance between economic interests and ecological preservation. It mandates contractors to meet high standards in financial, operational, and environmental practices, with the government and PETROBANGLA supporting regulatory compliance. The contract is praised for its focus on sustainability, equity in resource distribution, and its potential to attract foreign investment, steering Bangladesh towards energy self-sufficiency and sustainable development. This strategic document and its analysis signify a significant shift towards leveraging Bangladesh's offshore resources sustainably, promoting energy stability, and enhancing the nation's economic and environmental health (Mohazzem Hossain et al., 2024).

ix. Initiatives in the BIMSTEC

The approval of the Blue Economy as a sub-sector of the Trade, Investment, and Development Sector of BIMSTEC, led by Bangladesh, marks a significant stride in regional cooperation and sustainable development, a decision that came to fruition during the 19th BIMSTEC Ministerial Meeting on March 9, 2023 (BIMSTEC, 2023). By proposing the formation of an Inter-Governmental Expert Group to develop an Action Plan on the Blue Economy, Bangladesh has taken a pioneering role in catalysing a coordinated approach to harnessing the maritime resources of the Bay of Bengal. This move not only initiates the nation's leadership in promoting sustainable economic growth through the prudent use of oceanic resources but also highlights its commitment to fostering collaboration among member states. The

request for nominations for representatives to join the expert group signifies a collaborative framework designed to integrate the diverse capabilities, interests, and visions of all member states. This initiative aims to outline concrete, actionable strategies that leverage the vast potential of the Blue Economy for regional prosperity, emphasizing sustainable practices, economic integration, and environmental stewardship. Through this endeavour, BIMSTEC is setting a precedent for how regional alliances can effectively address shared challenges and opportunities in the Blue Economy, positioning the Bay of Bengal region as a leader in sustainable maritime development (De & Chirathivat, 2019).

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Completing the Seismic Surveys

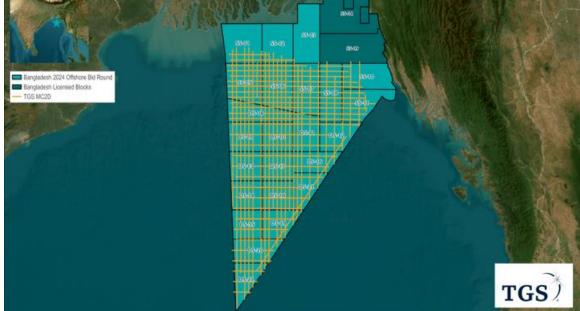
Bangladesh has completed an extensive multi-client seismic survey covering over a third of its sea area, a crucial step towards energy self-sufficiency. Conducted by Petrobangla with partners TGS and SLB, this initiative aims to map hydrocarbon reserves in the Bay of Bengal, potentially reducing dependence on imported LNG (TGS, 2024). The survey's initial phase acquired around 11,000-line kilometres of data, with the complete program set to cover nearly 32,000-line kilometres (TGS, 2024). Results, expected by early 2024, could significantly impact future exploration and economic strategies of the country.

Strategies for Launching Offshore Bidding in 2024

Petrobangla has launched the 2024 Bangladesh Offshore Bid Round, marking the first offering of offshore acreage since 2012, which includes fifteen deep water and nine shallow water blocks (Offshore, 2024). In a collaborative effort, TGS, alongside SLB and Petrobangla, has undertaken a comprehensive 2D multiclient seismic data survey covering over 75,000 square kilometers of the offshore region, targeting all 24 blocks available in the bid (Offshore, 2024). This extensive 12,636-line kilometre seismic acquisition, completed in April 2023, paves the way for final data products, essential for assessing the Bengal Fan a major underexplored area noted for its potential in hydrocarbon resources (Offshore, 2024). The availability of this data, coupled with the updated Production Sharing Contract 2023, equips interested companies with the necessary insights to formulate competitive bids. Companies are encouraged to participate in the bidding process over a six-month window following the announcement, seizing the opportunity to explore one of the last frontier regions (Offshore, 2024).



Map-2: TGS 2D Multi-Client Seismic Coverage and 2024 Bangladesh Offshore Bid Round License



Bangladesh's Submission to ITLOS Case No-31: Seeking Advisory Opinion on Climate Change, requested by the Small Island States Commission

In submitting a written statement to the International Tribunal for the Law of the Sea (ITLOS) as case no-31, Bangladesh has highlighted its pivotal challenges and stance on climate change, particularly as a

⁵ Compiled by the author from Google map and websites.

deltaic nation vulnerable to sea-level rise, increased salinity, and frequent cyclones. This move, in response to the commission of small island states, underscores the severe environmental risks threatening its marine ecosystem, coastal communities, and agriculture. As a proactive player on the global stage, Bangladesh's engagement with the UNFCCC and leadership within the Climate Vulnerable Forum showcase its commitment to fighting climate change. The ratification of the Paris Agreement further solidifies its dedication to mitigating global warming's impacts and protecting marine ecosystems. Bangladesh's efforts are emblematic of a broader call for global cooperation and effective policies to combat climate change's maritime threats, aiming for a sustainable and equitable future for maritime nations worldwide.

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xiii. Indo-Pacific Strategy

The "Indo-Pacific Strategy of Bangladesh" articulates a holistic vision for the nation's maritime development, emphasizing security, sustainability, and regional cooperation. It positions Bangladesh as a crucial player in ensuring the Indo-Pacific region's stability and prosperity, advocating for a rules-based international order (Akon et al., 2023). The strategy aims to enhance Bangladesh's capacities in sovereignty protection, terrorism and extremism counteraction, and substantial contribution to regional security. It stresses the importance of reinforcing support for the international legal framework, boosting economic ties, and forging stronger security partnerships, especially with the United States (Akon et al., 2023). Reflecting a commitment to being a net security provider and an active participant in global peacekeeping and regional economic collaboration, the strategy integrates Bangladesh's focus on democracy, human rights, and socio-economic progress with maritime security and regional harmony (Bangladesh, 2023). It addresses challenges like climate change and the Rohingya crisis with comprehensive measures to strengthen human capital and food and water security (Bangladesh, 2023). Aiming for sustainable economic growth and a diversified economy, Bangladesh aspires to enhance its role as a vital economic hub and trade conduit in the Indo-Pacific, promoting an open, prosperous, and inclusive regional vision.

n. NGOs frontlines Engagement

The Centre for Governance Studies (CGS) plays a pivotal role in fostering offshore development in Bangladesh by acting as a nexus for dialogue and exchange among scholars, diplomats, civil society leaders, and political figures on issues pertinent to the Indo-Pacific region (DEFENDERS, 2023). Their flagship initiative, the Bay of Bengal Conversation (BoBC), underscores CGS's commitment to addressing complex geopolitical challenges and promoting regional peace, stability, and prosperity ((CGS), 2023). By convening a diverse array of stakeholders, CGS not only amplifies Bangladesh's geostrategic significance but also contributes to shaping the discourse on Indo-Pacific strategies, diplomatic frameworks, and regional cooperation. This, in turn, facilitates a deeper understanding and collaborative approach towards sustainable development, peacekeeping, and economic integration, thereby enhancing Bangladesh's role in offshore development initiatives within the Indo-Pacific ambit.

FAILURE OF THE GOVERNMENT INITIATIVES

The maritime settlements between Bangladesh and its neighbouring countries were heralded as significant achievements with the potential to unlock vast offshore resources, pivotal for the nation's energy security and economic development (Alam & Xiangmin, 2019). However, the journey from diplomatic success to actual resource exploitation and energy solutions has been marred by a series of setbacks and unmet potentials. The inability of Bangladesh to conduct comprehensive geological surveys has emerged as a foundational flaw in this process. These surveys are crucial for mapping out the available resources, including oil and natural gas deposits, and without this data, the path forward remains obscured, deterring investment and informed decision-making (Alam & Faruque, 2009). This critical lapse points to broader issues of inadequate technical expertise and financial resource allocation, underscoring a disconnect between the country's strategic objectives and its operational capacities. Further compounding these challenges is Bangladesh's failure to organize competitive bidding rounds for the exploration of offshore blocks, a key mechanism for attracting international oil companies (IOCs) (Tamim, 2003). The absence of such initiatives not only reflects a missed opportunity in leveraging external expertise and investment but also raises questions about the country's regulatory framework and its alignment with international standards. The reluctance or inability to attract IOCs, attributed to regulatory uncertainties, geopolitical perceptions, or uncompetitive terms, has left Bangladesh's offshore potential largely untapped. This stagnation is particularly critical in the context of energy

security; the continued reliance on imported fossil fuels exacerbates the national energy crisis and economic strain, highlighting a glaring missed opportunity for energy diversification and independence. These failures, encompassing the lack of initiative in extraction activities, ineffective mitigation of energy crises, and the absence of Marine Spatial Planning (MSP), paint a broader picture of governance challenges, strategic planning deficiencies, and executional gaps (Alam, 2018). The absence of MSP, for instance, signifies a deeper oversight in managing the sustainable development of marine resources, raising concerns about long-term environmental conservation and the strategic utilization of maritime assets. Addressing these numerous challenges necessitates a comprehensive approach that spans enhancing technical expertise, refining regulatory frameworks, fostering international partnerships, and embedding sustainable practices in the exploration and extraction of offshore resources. Bangladesh's path to leveraging its maritime settlements for national development is contingent upon reconciling these gaps, requiring a concerted effort across government, industry, and international actors. Only through such collaborative and strategic endeavours can Bangladesh harness its maritime potential, ensuring energy security, economic growth, and environmental sustainability in alignment with its development aspirations.

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RECOMMENDATIONS

For Bangladesh to truly capitalize on its offshore development potential, a comprehensive approach is needed, one that not only attracts International Oil Companies (IOCs) but also ensures sustainable and equitable benefits for its people. Making the Production Sharing Contracts (PSCs) more attractive is a critical first step. By offering terms that are competitive on a global scale, Bangladesh can draw the interest of IOCs with the expertise and technology necessary for deep-sea exploration and extraction. This requires PETROBANGLA, the national oil company, to adopt a more proactive stance in planning and execution, ensuring that the country's offshore development strategy is both ambitious and feasible (Islam & Shamsuddoha, 2018). Moreover, the establishment of conclusive evidence of hydrocarbon reserves through comprehensive 2D and 3D seismic surveys is essential. These surveys will not only bolster the country's case in attracting international investment but also underpin strategic planning with solid empirical data.

Equally important is the formulation and enforcement of robust laws and regulations that safeguard the interests of all stakeholders involved in the offshore development sector (Alam & Xiangmin, 2019). These legal frameworks must balance the imperative of economic development with the need for environmental conservation and social responsibility. In parallel, enhancing maritime security with modern technologies and armaments ensures the protection of these investments and the safety of maritime activities. Furthermore, Bangladesh must prioritize the marine ecosystem's health, implementing safeguards that prevent environmental degradation and promote the sustainable use of marine resources. MSP is a visionary step in this direction, aiming to ensure that future generations have access to marine resources through principles of sustainable exploration and exploitation. These recommendations, if implemented effectively, could transform Bangladesh's offshore potential into a cornerstone of national development, securing energy independence, economic prosperity, and environmental sustainability for its people.

CONCLUSION

The resolution of maritime boundaries through the decisions of the International Tribunal for the Law of the Sea (ITLOS) and the Permanent Court of Arbitration (PCA) provided Bangladesh with a historic opportunity to explore and exploit its offshore resources. Despite the initial optimism, the subsequent period has been marked by notable failures in harnessing this potential, primarily due to gaps in government initiatives, technical expertise, and international collaborations. The unmet potential in conducting essential geological surveys, organizing competitive bidding for exploration blocks, and attracting IOCs underscores a significant shortfall in operationalizing the maritime gains. These shortcomings highlight critical areas demanding immediate attention, including regulatory reforms, enhanced security measures, and environmental safeguards, to ensure sustainable development.

However, the recommendations for Bangladesh to revitalize its offshore development efforts by making PSCs more attractive, ensuring conclusive hydrocarbon reserve data through advanced surveys, and enacting robust legal frameworks signal a pathway to redemption. The emphasis on MSP and the preservation of marine ecosystems further underlines the commitment to sustainable and responsible resource utilization. By addressing these challenges with a comprehensive and strategic approach,

Bangladesh stands at the cusp of transforming its maritime assets into a cornerstone of national prosperity. The future, thus, holds the promise of not only achieving energy security and economic growth but also setting a benchmark for environmental stewardship and sustainable development in maritime endeavours.

COMPETING INTERESTS DECLARATION

Author of the submitted manuscript, hereby declare no competing financial, personal, or professional interests that could influence the presented work. This statement ensures the research's transparency and objectivity, covering all potential conflicts of interest that might affect its process or outcomes.

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