

# Strengthening Coastal Fishing Communities: Lessons from Global Responsible Market Systems for Resilience in Bangladesh

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**Abstract.** Coastal fishing communities in Bangladesh are grappling with significant challenges posed by climate change and economic difficulties. These include burdensome loans, restricted market access, and the aftermath of natural disasters. This article seeks to introduce a tailored Responsible Market Systems (RMS) model that aims to bolster the resilience of these communities, drawing inspiration from successful initiatives in Southeast Asia. We explore effective RMS frameworks in Southeast Asia, highlighting essential components such as financial inclusion and market access, cooperatives, Community Revolving Funds (CRFs), and Public-Private Partnerships (PPPs). These elements are adapted to fit the unique context of Bangladesh's coastal fishing communities. The proposed model advocates for financial inclusion through CRFs, enhanced market access via cooperatives, and resilient infrastructure development through PPPs. Key strategies include skill development, using digital financial tools, and creating diversified income streams. For successful execution, it is vital to strengthen local governance, foster community organization and financial literacy, and tackle environmental issues. A gradual approach with pilot projects and continuous monitoring is crucial. Implementing this RMS model in stages, with a focus on fair income distribution and environmental sustainability, is vital for achieving long-lasting success and equitable outcomes in Bangladesh's coastal fishing communities.

## 1 Introduction

Coastal communities in developing countries, particularly Bangladesh, face increasing vulnerability to climate change impacts. While existing literature extensively documents the effects of stronger cyclones, rising sea levels, and extreme weather events on livelihoods and food security in these regions [1-4], a significant research gap exists regarding the comprehensive integration of economic and environmental factors in developing effective, long-term resilience strategies. Current responses often focus on short-term relief, neglecting the<sup>1</sup> underlying socio-economic vulnerabilities that perpetuate cycles of vulnerability [5, 6].

This vulnerability is particularly acute in Bangladesh's fishing communities, a sector crucial to both income and food security. Climate-related events directly reduce fish catches, damage equipment, and destroy infrastructure, exacerbating pre-existing challenges like limited market

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access, diminishing fish stocks, and a lack of capital [7-9]. The reliance on harmful lending practices, such as high-interest loans ("dadon") from informal moneylenders ("Mohajon"), further compromises financial stability and traps fishers in a cycle of debt [7-10]. This exploitative system, coupled with the lack of access to formal financial services and inadequate disaster risk management, leaves communities struggling to recover from climate shocks. These policy gaps in Bangladesh highlight the need for a more comprehensive approach [11-15].

Successful Responsible Market Systems (RMS) in other Southeast Asian countries demonstrate the potential for building resilient fishing communities [17-21]. These initiatives integrate interest-free loans, cooperatives, community-managed revolving funds, and public-private partnerships (PPPs) to improve financial access, market opportunities, and disaster preparedness. For instance, post-tsunami recovery efforts in Indonesia leveraged fish branding and cooperatives to enhance market access and prices while the Philippines' use of PPPs proved crucial for post-Typhoon Haiyan infrastructure rebuilding [22-24]. Cambodia's Community Revolving Fund (CRF) successfully reduced reliance on predatory lenders by providing low-interest, collateral-free loans [19,20].

This review examines these successful RMS models to develop a tailored framework for Bangladesh that addresses the unique challenges faced by its coastal fishing communities. This framework will emphasize financial inclusion and market access, CRF, and PPP integrating disaster risk management and financial strategies to promote long-term resilience.

## **2 Methods**

This research employs a comparative case study approach to analyze the effectiveness of RMS in building resilience among climate-vulnerable coastal fishing communities. The study draws upon both secondary and tertiary data sources.

### **2.1 Data sources**

The primary data source consists of secondary data from published research articles, reports from international organizations, and government documents related to climate change adaptation, coastal community resilience, and implementing Responsible Market Systems initiatives in Southeast Asia. Specific examples include studies on the impacts of climate change on fisheries in Bangladesh, successful RMS models in Indonesia, the Philippines, and Cambodia, and relevant policy documents on disaster risk reduction and sustainable development in Bangladesh. This data provides insights into the challenges faced by coastal communities, successful RMS strategies in similar contexts, and relevant policy frameworks in Bangladesh.

Information gathered from websites of international organizations and government agencies complements the secondary data, providing up-to-date information on policy initiatives and ongoing projects. This review addresses a gap in the literature by examining successful RMS models from Southeast Asia to propose a tailored framework for Bangladesh, where current recovery initiatives often fall short of addressing underlying financial and socio-economic vulnerabilities.

### **2.2 Analytical framework**

The comparative case study analysis focuses on three successful RMS models and identifies key elements contributing to their effectiveness. These elements include: Community-based financial mechanisms, Cooperative structures for enhanced market access & Public-private partnerships for resilient infrastructure.

The analysis compares these elements across different contexts, highlighting best practices and lessons learned. For instance, in Indonesia, RMS strategies, including fish branding and cooperative frameworks, improved market access and enabled local fishers to secure better prices after the tsunami. In the Philippines, PPPs played a pivotal role in recovery efforts after Typhoon Haiyan by rehabilitating infrastructure and allowing communities to regain their market access. Cambodia's CRFs have proven effective in decreasing dependence on predatory lending by providing low-interest, collateral-free loans, which support diversification in livelihoods.

The analysis also considers contextual factors specific to Bangladesh, such as its unique geographical vulnerabilities, socio-political context, and existing policy frameworks, to identify appropriate adaptations for a tailored RMS model. This includes addressing the exploitative lending practices that disproportionately burden fishers, forcing many into high-interest loans from informal lenders. The proposed RMS model fosters sustainable resilience by enhancing financial access and creating market opportunities for fishing communities.

Indicators for evaluating success include indicators of increased financial inclusion, improved market access, enhanced disaster resilience, and strengthened community governance.

### **2.3 Limitations of the study**

The study relies primarily on secondary data, which might limit the depth of analysis and the ability to capture nuances of community-level dynamics. The absence of primary data collection (interviews with community members and policymakers) restricts the ability to obtain firsthand perspectives on the challenges and effectiveness of various interventions. Furthermore, the comparative analysis is limited to a selected set of successful RMS models, and other examples could provide additional insights. The generalizability of the proposed RMS model for Bangladesh requires further empirical validation through fieldwork and impact assessment. It is also important to acknowledge the potential limitations of transferring successful models from one context to another, as any developing country has a unique environment and circumstances [25].

## **3 Results and discussion**

### **3.1 RMS for climate-vulnerable coastal communities in Bangladesh**

RMS provides a strategic way to boost resilience for vulnerable groups in Bangladesh, especially in the face of climate change. It aims to create inclusive and sustainable markets by strengthening local governance, increasing market access, and promoting financial inclusion [16, 26]. This often involves supporting the formation of producer organizations, like fishing cooperatives, which help increase bargaining power and reduce reliance on exploitative middlemen. RMS also provides access to microfinance and insurance to manage climate risks and invests in climate-resilient infrastructure to improve supply chains and market access [27, 28]. By fostering collaboration among governments, businesses, and local communities, RMS seeks to create markets that are both economically viable and socially fair. This can enhance resilience to climate shocks and support sustainable growth in the long run [16, 26].

RMS has been successful in building the resilience of climate-vulnerable communities in Southeast Asia, including Indonesia, the Philippines [29] and Cambodia [21]. The following Table 1 summarizes the key similarities and differences in the three case studies:

**Table 1.** Key similarities and dissimilarities of case studies

| Feature         | Indonesia                                                                                           | Philippines                                                                                                | Cambodia                                                                      |
|-----------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Key Element     | Financial Inclusion & Market Access [30,31]                                                         | Infrastructure Rebuilding (PPPs, "Build Back Better"), Community Engagement, Early Warning Systems [32,33] | CRF, Microinsurance, and Community Empowerment [20]                           |
| Success Factors | Targeted marketing, cooperative structures, sustainable fishing practices                           | Public-Private Partnerships, community participation, disaster-resistant infrastructure                    | Accessible credit, microinsurance, focus on marginalized groups               |
| Challenges      | Infrastructure development, quality control, fragmented fishing sector                              | Governance coordination, community-based early warning systems                                             | Local governance, financial institution strengthening, corruption prevention  |
| Lessons Learned | Importance of financial inclusion sustainable fishing practices, strong cooperative governance [34] | Crucial role of PPPs, community participation, and "build back better" approach [32]                       | Effectiveness of CRFs microinsurance, empowerment of marginalized groups [20] |

These experiences offer valuable lessons for developing a tailored RMS model for Bangladesh. Since Bangladesh has unique coastal challenges, it’s important to base efforts on research that specifically addresses the region's needs. Studies on social development and fishing communities in Bangladesh highlight the particular vulnerabilities of these groups [27]. Additionally, understanding how climate change affects coastal communities in Bangladesh is essential for crafting effective RMS strategies [1,2,4]. The creation of the Bangladesh Climate Change Resilience Fund (BCCRF) and the Bangladesh Climate and Development Platform (BCDP) demonstrates a commitment to integrating climate adaptation and mitigation into national development plans, which can strengthen RMS efforts [35,36]. Furthermore, the Local Government Initiative on Climate Change (LoGIC) has empowered coastal women farmers through cooperative farming, enhancing their climate resilience and economic stability [27]. This comprehensive approach emphasizes the importance of community engagement and capacity building to address the vulnerabilities of coastal populations in Bangladesh.

**3.1.1 Indonesia’s RMS Model: Building coastal resilience through financial inclusion and market access**

Indonesia's recovery from the 2004 Aceh tsunami highlights an effective RMS model centered on enhancing coastal resilience through financial inclusion and improved market access. A critical component of this model involves the introduction of microfinance programs and interest-free loans, which have proven essential for enabling small-scale fishers to rebuild their damaged infrastructure [37]. Furthermore, the integration of fintech solutions presents opportunities to broaden access to financial services across [38]. A noteworthy innovation within this approach is the concept of fish branding, a strategy that aims to penetrate high-value international markets, particularly targeting Japan's sushi industry with products like tuna and shrimp. To ensure long-term viability, the Marine Stewardship Council emphasizes the importance of sustainable fishing practices that align with these branding initiatives, allowing fishers to tap into lucrative markets while preserving ecological balance. Complementing these efforts, cooperative market structures

have enhanced operational efficiency by reducing costs and ensuring more equitable profit distribution among fishers. Public-private partnerships have facilitated the development of essential infrastructure, including cold storage and processing facilities, significantly improving post-harvest management. The Indonesia Mangroves for Coastal Resilience Project [39] further supports this model by promoting green, resilient, and inclusive development within coastal communities through a landscape-based approach to mangrove management and resilience-building initiatives.

Indonesia's RMS model demonstrates tangible benefits, as seen in Aceh's post-tsunami recovery where macroeconomic indicators, such as real RGDP per capita, showed statistically observable adverse impacts initially, followed by a recovery attributed to effective aid and recovery programs [40]. Furthermore, Regional Development Banks play a crucial role in supporting regional economies, with studies analyzing their financial efficiency and impact on regional development using panel data methods [41]. While specific quantitative data for all aspects of the RMS model may vary, these examples illustrate the potential for positive economic outcomes through strategic interventions and financial support [40, 41].

### *3.1.2 Philippines RMS Model: Public-private partnerships, community participation, disaster-resistant infrastructure*

The Philippines' RMS model, particularly following Typhoon Haiyan, showcases a multi-faceted approach to building long-term coastal resilience. This model strategically leverages public-private partnerships to mobilize resources and foster the development of disaster-resistant infrastructure [33, 42]. A core principle is the "build back better" approach, which emphasizes the construction of climate-resilient infrastructure, including essential facilities like ports and landing stations [43]. The model also prioritizes the implementation of enhanced early warning systems and promotes strong community engagement throughout the disaster risk reduction and management process [24, 44]. To ensure the sustainability of fisheries and aquaculture, the Philippines continuously promotes good Coastal Resource Management practices [45]. This comprehensive strategy integrates financial inclusion to build economic resilience in small-scale fisheries [34].

Evidence indicates that community engagement is essential to build resilience in the Philippines [24]. The Malinis at Masaganang Karagatan or Clean and Abundant Seas program has awarded millions to fisheries communities based on criteria such as no illegal fishing, observance of a closed fishing season, and effective mangrove protection [45]. The country's experience with Typhoon Haiyan serves as a warning and an opportunity to adapt through adequate planning, improvements to infrastructure, and the formulation of disaster risk preparedness and mitigation programs [22].

### *3.1.3 Cambodia's Community Revolving Fund Model: Evolution towards resilience financing*

Cambodia's CRF model represents an innovative grassroots financial mechanism aimed at addressing chronic financial exclusion and enhancing community-level resilience in disaster-prone areas. Initially designed as a community-managed microcredit system, the CRF enables vulnerable households—especially women and youth—to access small, affordable loans at interest rates significantly lower than those offered by commercial banks or informal lenders [46]. These revolving funds operate by circulating repayments back into the fund pool, enabling sustainable credit access for other members. Over time, this model has evolved into a more integrated Community Resilience Fund, incorporating additional resilience-building components such as microinsurance facilities, livelihood diversification support, and disaster preparedness training [20]. The evolution reflects a shift from mere financial access to a holistic resilience strategy,

aligning with global frameworks like the Sendai Framework for Disaster Risk Reduction, which emphasizes community-based risk mitigation and financing.

Empirical evidence supports the effectiveness of Cambodia’s CRF model in reducing financial vulnerability and enhancing post-disaster recovery. A recent Asian Development Bank [47] report highlights that CRF-supported households were 30-40% more likely to invest in climate-resilient livelihoods, such as poultry rearing and drought-resistant vegetable farming. Moreover, communities with access to CRFs demonstrated faster recovery rates post-disaster, reducing dependency on exploitative lending sources by 25% within two years of implementation [47]. Studies by the International Fund for Agricultural Development [48] also found that revolving funds facilitated stronger local governance, with greater participation of women in financial decision-making (up to 45%) and increased household income stability. Complementarily, when CRFs are coupled with microinsurance schemes-as seen in pilot projects in Cambodia-households report a 20–35% reduction in asset loss recovery time, thereby accelerating long-term resilience [49]. These findings illustrate that CRFs serve not only as financial instruments but also as community empowerment mechanisms, effectively bridging resilience and inclusion.

### 3.2 Proposed RMS model for Bangladesh

To effectively tackle the socio-economic and environmental challenges facing Bangladesh’s coastal fishing communities, the RMS model should focus on practical components tailored to local needs. Inspired by successful examples from countries like Indonesia, the Philippines, and Cambodia, this model brings together financial inclusion and market access, community-based cooperatives, CRF, PPP, and policy support to create a resilient and sustainable framework. The following key components outline how to implement the RMS model in Bangladesh, which is visually represented in Figure 1 and Figure 2.

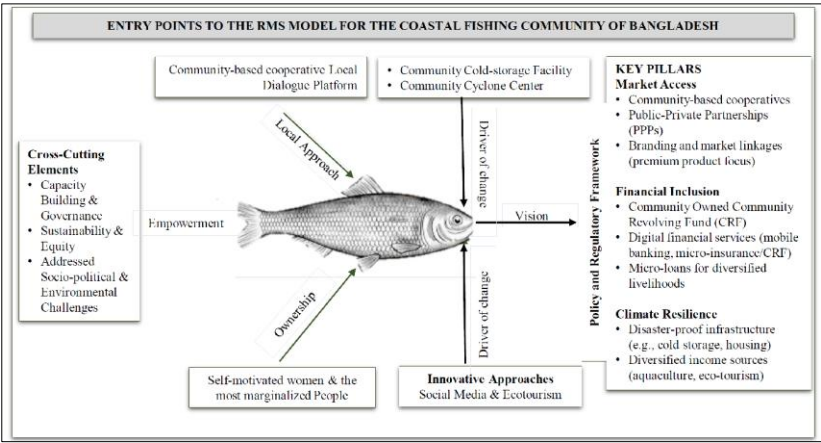


Fig. 1. Sample line chart illustration.

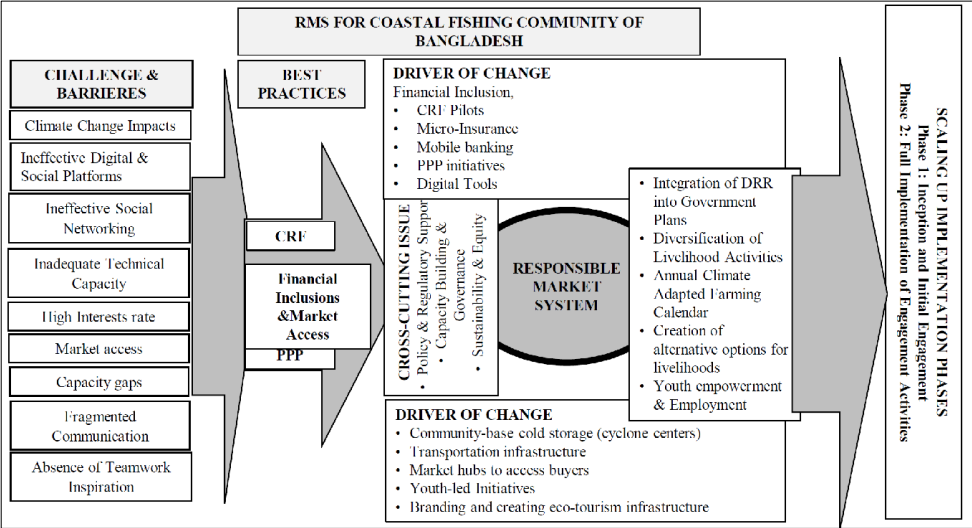


Fig. 2. RMS model for coastal fishing communities of Bangladesh.

3.2.1 Financial inclusion and market access

Community-based fishery cooperatives are crucial for enhancing fishers' bargaining power, market access, and value chain efficiency, thereby reducing their dependence on exploitative middlemen. By uniting fishers, cooperatives enable them to collectively negotiate better prices, access premium markets, and improve the overall quality of their products. Effective governance and transparent management within these cooperatives are essential for ensuring fair pricing, accountability, and the sustainable operation of these entities [50, 51]. To facilitate the growth and success of fishery cooperatives, government policies should formally recognize and regulate them, providing a supportive legal and institutional framework.

Adapting strategies from Indonesia, particularly the use of microfinance for post-disaster recovery in Aceh [37], offers a valuable model for Bangladesh's disaster-prone coastal communities [52]. Coastal fishing communities in Bangladesh are highly vulnerable to climate change, with limited alternative income sources [4]. Microfinance can help these communities rebuild infrastructure and diversify their income streams after disasters. Financial inclusion strategies should focus on increasing access to a range of financial services, as highlighted by the experiences in Indonesia [53,54]. Strengthening cooperatives can address critical challenges such as exploitation by middlemen, limited access to credit, and the burden of high license fees [52]. Furthermore, integrating fintech solutions [38] can expand financial inclusion in remote coastal areas, overcoming geographical barriers and improving the efficiency of financial transactions. Access to formal credit can reduce reliance on informal lenders who often charge exorbitant interest rates [55]. By empowering local communities, securing tenure over resources, and improving access to financial services [52], Bangladesh can foster sustainable fisheries management and enhance the resilience of its coastal communities. Training programs can further enhance financial literacy and promote transparency in cooperative governance [56].



### **3.2.2 Community revolving funds (CRFs)**

Community Resilience Funds and microinsurance are vital for economic stability and disaster preparedness in Bangladesh, a nation highly vulnerable to climate-related disasters (Bangladesh: Strategic Program for Climate Resilience [57]. These mechanisms address socio-economic challenges by tackling high interest rates in formal financial institutions and limited access to traditional banking, offering tailored solutions for vulnerable populations. CRFs, functioning as community-led initiatives, provide low or no-interest loans, diminishing reliance on exploitative lenders [20]. They foster financial inclusion, granting marginalized groups, including women and smallholder farmers, access to credit for climate adaptation and livelihood development. Microinsurance complements CRFs by offering a safety net against specific risks, ensuring timely financial relief after climate-induced losses [58]. Studies on weather-indexed microinsurance in Bangladesh demonstrate its effectiveness in enhancing household resilience [58].

The integration of CRFs and microinsurance into a comprehensive risk management strategy is crucial for mitigating financial barriers, enhancing climate resilience, and promoting inclusive economic growth in Bangladesh. Empirical evidence highlights their role in reducing vulnerability, ensuring timely financial relief, and strengthening community-driven financial governance. By embedding CRFs and microinsurance into Bangladesh's rural market system, the proposed model can foster long-term resilience and economic stability, contributing to broader development goals such as poverty reduction and improved health outcomes. However, it's important to acknowledge potential challenges such as mismanagement of CRFs and affordability issues with microinsurance [59].

### **3.2.3 Public-private partnerships (PPPs)**

Drawing from the Philippines' experience, Bangladesh can significantly enhance the resilience of its coastal fishing communities by strategically adopting key elements of its Risk Management System. Given shared vulnerabilities to climate change and natural disasters, Bangladesh can especially benefit from leveraging Public-Private Partnerships to develop disaster-resistant infrastructure and promote sustainable practices [60]. This includes investing in climate-resilient infrastructure such as cyclone shelters, safe fish harbors [61], ports, landing stations, cold storage, and fish processing centers, which are crucial for maintaining productivity during and after disasters. These investments should consider environmental impact assessments to minimize ecological damage [4]. Furthermore, integrating financial inclusion initiatives builds economic resilience in small-scale fisheries [34], and promoting responsible production and use of feed and ingredients can further support sustainable aquaculture growth [45].

To effectively implement this model, Bangladesh should prioritize community engagement, learning from programs like the Philippines' Malinis at Masaganang Karagatan, which incentivizes sustainable practices at the local level [24]. Strengthening community networks and revising existing rules and regulations can improve social-ecological resilience [4]. Strengthening value chains by connecting coastal communities to global seafood markets is also critical for enhancing economic opportunities and food security. Implementing the Small-Scale Fisheries Guidelines can further aid in disaster relief, rehabilitation, and vulnerability reduction [1]. Flexible strategies rooted in sustainable fisheries management are crucial for building coastal communities' resilience [4]. By focusing on these key areas and adapting successful strategies from the Philippines, Bangladesh can transform infrastructure development, promote sustainable fisheries, and strengthen the adaptive capacity of its vulnerable coastal communities.



### **3.2.4 Financial inclusion via digital tools**

Enhancing financial inclusion through digital tools helps improve access to financial services and reduces dependence on exploitative lenders. By integrating digital financial services, such as mobile banking, micro-insurance, and mobile money platforms, fishers can manage their finances effectively and access various markets directly. Partnerships with mobile financial service providers like bKash or Nagad are vital for offering mobile savings accounts, micro-insurance, and digital loans, increasing access to credit. The Asia-Pacific Fishery Commission (APFIC) highlights how leveraging information and communication technologies (ICTs) can significantly boost financial inclusion and governance in the fisheries sector [45, 62].

Additionally, blockchain technology can enhance transparency and ensure fair compensation along the supply chain, addressing issues related to illegal and unregulated fishing [45, 62]. Notably, training in digital literacy and financial management will empower fishers to effectively navigate these tools (Figure 2), enabling them to make the most of financial inclusion opportunities [45, 62].

### **3.2.5 Policy and regulatory support**

A supportive policy framework is essential for promoting sustainable fisheries management and private sector involvement within the RMS model. The government should foster policies that support financial inclusion, cooperative governance, and access to markets. Encouraging private sector investment and requiring financial literacy programs are vital for long-term sustainability. Successful models from Indonesia show that cooperative financial literacy training can empower local fishers and improve their resource management skills [52]. Furthermore, investment-friendly policies and infrastructure development within the fisheries sector will boost sustainable market access initiatives, as seen in Cambodia's efforts to enhance disaster management and resilience [63, 36].

A strong legal and regulatory framework governing fisheries cooperative is essential for ensuring transparency and accountability. This framework should support the formation of community-based organizations capable of managing resources effectively and advocating for local fishers' interests [52]. By focusing on key components like community-based cooperatives, CRFs, PPPs, digital financial tools, and policy support, Bangladesh can implement a tailored RMS model. This model aims to foster sustainable recovery and long-term resilience in coastal fishing communities. It addresses economic vulnerabilities and climate-related challenges these communities face, drawing insights from successful examples in neighboring countries. With cooperative governance, enhanced market access, and improved financial inclusion, Bangladesh's coastal regions can work towards a sustainable and resilient future.

## **3.3 Challenges of contextual adaptation**

Implementing the RMS model in Bangladesh encounters significant challenges due to socio-political and environmental differences compared to other Southeast Asian nations. Key issues include bureaucratic inefficiencies, weak governance, limited private sector participation, and low community organization and financial literacy among marginalized fishing communities. These challenges are exacerbated by Bangladesh's geographical vulnerabilities, which make it highly susceptible to natural disasters like cyclones and flooding [64].

To address these challenges, partnerships with local fisheries cooperatives, NGOs, and the private sector are necessary to strengthen governance. Empowering local communities through targeted training in governance and financial management is crucial. Many fishers in small-scale fisheries lack access to formal financial services, highlighting the need for enhanced financial literacy [64]. The model also tackles community-level challenges by promoting financial literacy,

strengthening community organizations, and using technology, such as mobile banking and digital payment platforms, to improve market access and financial services for dispersed communities [64]. Additionally, the RMS model directly confronts Bangladesh's unique environmental challenges, including sea-level rise, salinity intrusion, and frequent cyclones. It promotes climate-resilient practices, integrated water management, seasonal fishing bans, and mangrove restoration projects [64]. These strategies are vital for improving the adaptive capacity of coastal communities, which are often most vulnerable to climate impacts [64].

The model also addresses geographic and infrastructure disparities by enhancing transport networks, storage facilities, and communication infrastructure in rural areas. Utilizing youth-led social and digital platforms can further improve access to larger markets, creating more economic opportunities for local fishers [64]. With these strategies, Bangladesh's coastal regions can move towards a sustainable and resilient future through cooperative governance, improved market access, and greater financial inclusion. This adapted RMS model is designed to be effective within Bangladesh's unique context, ensuring that local communities' needs and challenges are properly addressed [64].

### **3.4 Practical implications of the RMS model in Bangladesh**

The RMS model in Bangladesh aims to resolve the unique challenges faced by coastal fishing communities that rely on marine resources but are vulnerable to climate-induced disasters like cyclones, floods, and environmental changes such as sea-level rise and salinity intrusion. While these communities possess traditional knowledge and are engaged in microfinance networks, they face significant hurdles, including limited access to affordable credit, poor market access, and major infrastructure deficits. The RMS model advocates for cooperative market systems and PPPs to create climate-resilient infrastructure and diversify livelihoods through aquaculture and sustainable agriculture, enhancing community resilience [66] [65].

The model also emphasizes the need for strategic policy reforms to tackle issues like weak policy frameworks, middlemen overfishing, and environmental vulnerabilities. It supports direct market access, seasonal fishing bans, and the adoption of climate-resilient agricultural and aquaculture practices to promote sustainability [67]. The RMS model offers a comprehensive, context-sensitive strategy that integrates financial inclusion, improves market access, and fosters cooperative structures. This approach not only aims to mitigate the economic and social vulnerabilities of fishing communities but also aligns with global best practices adapted to local realities, laying the groundwork for sustainable, climate-resilient fisheries in Bangladesh [65, 68].

## **4 Conclusion**

This review highlights the significant challenges faced by Bangladesh's coastal fishing communities due to climate change, economic hardship, and weak governance. The analysis of successful RMS models from Indonesia, the Philippines, and Cambodia reveals key components for building resilience: community-based financial mechanisms (CRFs and microfinance), strong cooperatives for improved market access, and public-private partnerships for climate-resilient infrastructure. A tailored RMS model for Bangladesh, integrating these elements while addressing the country's unique contextual factors, offers a promising strategy for enhancing long-term resilience and promoting sustainable development within the fisheries sector.

The proposed model emphasizes community ownership and participation, equitable income distribution, and environmental sustainability. Its success depends critically on strengthening local governance, enhancing financial literacy, and fostering collaboration among government, private sector, and community organizations. Strengthening policy support is crucial. This includes formally recognizing and regulating cooperatives in the fisheries sector, incentivizing

private sector involvement in PPPs, and providing targeted support for financial literacy and capacity building within communities. Addressing bureaucratic inefficiencies and promoting transparency in decision-making processes within both government and community organizations are also vital.

The next steps toward implementing this RMS model should include conducting pilot projects in selected coastal communities to test the feasibility and effectiveness of its key components. This should be followed by rigorous monitoring and evaluation to assess its impact, identify areas for improvement, and inform policy adjustments for wider implementation. Further research could focus on developing detailed implementation plans, including financial modeling, community engagement strategies, and capacity-building programs to ensure the long-term sustainability and success of the proposed RMS model. Such research should explicitly address the trade-offs and potential drawbacks, including the need for sustainable financing models to mitigate reliance on external donor funding.

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