



CIVIL SOCIETY AND COASTAL GOVERNANCE: EMPIRICAL INSIGHTS FOR SHORELINE MANAGEMENT PLANNING IN TAMIL NADU, INDIA¹

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INTRODUCTION

Civil society now occupies a prominent place in contemporary governance studies. It forms a broad space between the state and private markets. It is made up of many different types of organisations such as community associations, cooperatives, nonprofit service groups, faith-based networks, social movements, and informal neighbourhood initiatives (Putnam 1993; Salamon and Anheier 1998). These groups connect government agencies and everyday citizens, particularly in areas where development pressures overlap with inequality, environmental risk, displacement, and contested resource use. Their work ranges from community

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mobilisation and public education to advocacy and direct service delivery. In doing so, civil society often improves trust, enhances legitimacy, and supports more grounded decision-making in governance processes. This has become very visible in environmental and climate-related fields, where problems are difficult to predict and have uneven impacts on different groups in society. In the Tamil Nadu coastal context, this connection is highly visible because civil society organisations regularly interact with fishers, local panchayats, and coastal settlements in ways that directly shape the interpretation and acceptance of shoreline interventions.

Many non-governmental organisations in coastal areas and other vulnerable regions interact closely with communities. They support conservation activities, help with ecosystem restoration, organise relief during disaster events, and bring local knowledge into policy dialogues in a way that government departments alone often cannot (Kearney et al. 2007; Reed 2008). Their involvement broadens the information that is available for planning and helps to reduce gaps between technical expertise and lived experience. Ostrom's work on polycentric governance (2009) provides strong support for this type of shared authority. When responsibilities and knowledge are distributed across multiple institutions, outcomes are usually more adaptable and resilient. In this sense, participation is not simply a theoretical aspiration. It is often a practical requirement in situations where climate and environmental risks are dynamic.

Coastal zones show these tensions clearly. Sea level rise, coastal erosion, storm surges, salinity intrusion, and cyclones all converge along India's coasts (IPCC 2019; Vousdoukas et al. 2020). Still, national coastal planning in India continues to rely heavily on engineering solutions such as seawalls, groynes, embankments, and port expansion projects. Civil society organisations tend to raise issues that do not always receive sufficient weight in purely engineering-based planning. These include the rights and livelihood needs of artisanal fishers, access to sanitation and drinking water, loss of coastal ecosystems, and community preparedness for extreme events. International evidence shows similar patterns. Community-based mangrove restoration in the Philippines and Bangladesh has improved both ecological resilience and social acceptance (Walters 2008; Rahman et al. 2021). In the Netherlands, structured participation within the Room for the River programme reduced conflict and increased trust (Roth et al. 2017). The Niger Delta shows the opposite case, where widespread exclusion of civil society created severe mistrust, conflict, and degradation (Badru et al. 2023).

India's coastline extends more than 7,500 km, and national assessments indicate that more than 40 percent is eroding (NCCR 2018). Shoreline Management Plans have been introduced in response to these challenges, but they still reflect a largely engineering-centred approach and do not adequately incorporate community knowledge or ecological processes (Glavovic et al. 2020). Tamil Nadu's coastline illustrates these limitations. The region supports extensive artisanal fishing communities, culturally significant coastal settlements, and ecologically important habitats.



It is also exposed to frequent cyclones and storm-related losses (MoEFCC 2018; IMD 2019). Within this landscape, civil society organisations are working in mangrove rehabilitation, coastal clean up, decentralised waste handling, disaster recovery, capacity building, and advocacy for basic public services. These contributions fill gaps that formal state agencies do not always have the capacity or mandate to address.

The present study, therefore, explores how civil society influences shoreline management outcomes in Tamil Nadu. The analysis indicates that civil society actors introduce social fairness, legitimacy, local knowledge, and distributive priorities into coastal planning discussions. Without their involvement, these aspects are often missing from mainstream SMP practice. The findings suggest that integrating civil society in SMP processes is not simply an optional extra but is necessary for developing coastal adaptation strategies that are fair, long-lasting, and socially accepted in India and in other coastal regions of the Global South. In India, the broader regulatory environment for coastal planning is still shaped by the Coastal Regulation Zone Notification 2019, which defines permissible and restricted development activities along the coast (MoEFCC, 2019).

2. Civil Society and Nonprofit Governance in Shoreline and Environmental Contexts

Civil society has gained increasing prominence in governance debates, especially in settings where state institutions face limits in capacity, legitimacy, or everyday reach. Positioned between the state and the market, it encompasses a wide range of voluntary organisations, including nonprofits, cooperatives, faith-based associations, unions, and informal neighbourhood collectives (Edwards 2011). These groups represent local interests, broaden participation, and help strengthen accountability in public decision-making. Within this broad landscape, the nonprofit sector forms an important institutional core. Nonprofits combine service delivery with advocacy and often introduce ideas that fall outside market incentives or standard bureaucratic routines (Salamon and Anheier 1998).

2.1 Civil Society and Governance

From a governance perspective, civil society contributes in several mutually reinforcing ways. It supports the state by filling gaps in areas such as disaster response, environmental management, health services, and education (Brown and Moore 2001). It also represents communities whose concerns may otherwise remain peripheral to policy discussions (Ebrahim 2003). In many regions, civil society enables collective action by bringing people together around shared concerns related to resource use, basic rights, and social well-being (Foley and Edwards



1996). These roles enhance both legitimacy and accountability. When local actors participate meaningfully in decision-making, governance responses tend to be more grounded, more accepted, and better aligned with local realities (Reed 2008). This is especially relevant in shoreline and wider environmental governance, where ecological processes, built infrastructure, and livelihoods intersect.

2.2 Civil Society in Environmental and Shoreline Governance

Environmental governance refers to the arrangements through which societies manage natural resources and ecological risks (Lemos and Agrawal 2006). Shoreline governance is a more specialised part of this field, focused on coastal change, erosion, habitat loss, climate-related hazards, and access to marine resources. These are complex problems that no single institution can address alone. They require cooperative arrangements involving government agencies, private interests, and community organisations (Glavovic et al. 2020).

Ostrom's work on polycentric governance (2009) provides an important way of understanding such shared systems. According to this perspective, socio-ecological outcomes improve when authority and knowledge are distributed across multiple centres rather than concentrated in a single agency. In coastal contexts, civil society contributes to such polycentric arrangements by providing local knowledge (Armitage et al. 2012), building trust among groups with different interests (Pretty and Smith 2004), and testing small, adaptive interventions that complement formal shoreline planning (Fabricius et al. 2004). These functions make environmental governance more flexible and responsive, particularly in settings where coastal risks evolve rapidly.

2.3 Global Experiences of Civil Society in Shoreline and Environmental Management

International experience consistently shows that civil society plays a central role in improving coastal and environmental outcomes. In the Philippines, fisher cooperatives and NGOs have worked together on mangrove restoration, strengthening ecological resilience while supporting local livelihoods (Walters 2008). In Bangladesh, local organisations have helped design hybrid coastal protection systems that combine embankments with mangrove planting, demonstrating that ecological and engineering approaches can work together (Rahman et al. 2021). In the Netherlands, the Room for the River programme incorporated structured community participation, leading to smoother implementation and greater public acceptance of adaptation measures (Roth et al. 2017). Conversely, experiences in the Niger Delta show that when civil society is excluded from decision-making, mistrust, conflict, and environmental decline often follow (Badru et al. 2023). Taken



together, these examples show that technical, state-driven approaches alone are rarely sufficient. Civil society makes environmental management both more adaptive and more socially credible.

2.4 Civil Society in Coastal and Shoreline Governance

Coastal zones are complex spaces where ports, fisheries, industries, ecological habitats, and settlements overlap within narrow geographic stretches. Because these interests intersect, shoreline governance cannot rely solely on top-down, engineering-oriented responses (Glavovic et al. 2020). Civil society plays a critical role in mediating between different interests, promoting fair access to coastal resources, and advocating for ecological sustainability. In many coastal regions, civil society groups take responsibility for issues that receive limited attention in formal shoreline plans. NGOs assist with community preparedness, early warning communication, and post-disaster recovery (Paul and Routray 2011). Women's self-help groups raise concerns about water supply, sanitation, housing, and women's safety—domains that shape the everyday resilience of coastal households. Community-level associations restore dunes, plant mangroves, and maintain natural buffers that complement engineered structures (Spalding et al. 2014). These activities illustrate a broader understanding of shoreline management as a socio-ecological process rather than an engineering task, shaped by local values, institutional relationships, and everyday experience. Civil society, therefore, provides an important lens for understanding how shoreline interventions are interpreted, supported, and sustained in practice. These activities show that shoreline management is not only a matter of engineering design but also a social process shaped by local knowledge, institutional relationships, and everyday experience. Civil society, therefore, offers an important perspective for understanding how shoreline interventions are interpreted and put into practice in different coastal settings.

Building on this discussion and on the wider literature on participatory and polycentric environmental governance, the study focuses on four questions. The first concerns how various civil society organisations, including non-governmental organisations, women's self-help groups, fisher cooperatives, and religious institutions, take part in shoreline governance along the Tamil Nadu coast. The second examines the roles these organisations play in explaining and supporting Shoreline Management Plans and the extent to which their contributions complement or differ from the technical emphasis of the existing SMP framework. The third explores how civil society involvement shapes the social acceptance, ecological relevance, and practical performance of shoreline interventions at the local level. The fourth considers how the patterns observed in Tamil Nadu compare with experiences reported from other countries where civil society has influenced coastal and environmental governance.



3. Materials and Methods

This study examined how civil society organisations contribute to shoreline governance along the Tamil Nadu coast. The material and methods are presented in three parts: the description of the study area, the data collection process, and the analytical approach adopted to interpret the findings. The sequence of research stages followed in this study is shown in the methodology flowchart (Figure 1). It illustrates how the work moved from identifying the coastal setting, to selecting stakeholder groups, gathering field information, processing and coding the material, and finally generating mapped outputs and comparative insights. Each step is connected so that field evidence directly informs the interpretation of the roles played by civil society in shoreline management.

3.1 Study Area

Tamil Nadu occupies the southeast coast of India, facing the Bay of Bengal, and has a coastline of roughly 1,076 km, stretching from Tiruvallur in the north to Kanyakumari at the southern tip. Coastal livelihoods are widespread, with more than one million people dependent on marine resources, particularly in around 600 fishing settlements (NCCR 2023). Marine capture fisheries, aquaculture, salt production, and small-scale tourism play prominent roles in the coastal economy.

The coastline also includes ecologically significant landscapes such as the Pulicat Lagoon, the Pichavaram and Muthupet mangroves, Point Calimere wetlands, and the Gulf of Mannar Biosphere Reserve, which supports coral and seagrass ecosystems. These areas provide natural coastal protection and hold high biodiversity. Over time, however, port expansion, industrial development, land reclamation, and rapid urban growth have modified shoreline form and disturbed sediment movement. Current assessments indicate that about forty-two percent of the coastline is undergoing erosion (NCCR 2020). Cyclonic storms such as Vardah (2016), Ockhi (2017), and Gaja (2018) have caused major losses to infrastructure and coastal villages (IMD 2019). In response, Shoreline Management Plans were introduced to improve erosion control and hazard mitigation. While SMPs have strengthened technical shoreline assessment work, they have not fully addressed community concerns and nature-based approaches. This makes Tamil Nadu a relevant context for studying how civil society contributions can influence more participatory forms of shoreline governance. Recent government coastline assessment confirms that Tamil Nadu continues to show rapid shifts in sediment budgets and erosion hotspots along multiple shoreline segments (NCCR, 2023).



3.2 Data Collection

Fieldwork was carried out during July and August 2023 across all fourteen coastal districts of Tamil Nadu. The study used qualitative enquiry, relying mainly on structured stakeholder consultations to document community perspectives on shoreline change and local governance needs. A total of 180 consultations were held with four categories of actors who are either directly involved in coastal issues or play an important role in local decision-making: non-governmental organisations, women's self-help groups, fisher cooperatives, and religious bodies.

NGOs were consulted because of their work in ecological restoration, public awareness campaigns, and disaster preparedness. Women's self-help groups were included as they address everyday concerns related to water supply, sanitation, and basic services in coastal households. Fisher cooperatives were approached because of their involvement in dredging requests, harbour facilities, and access to landing spaces. Religious associations, such as temple and church committees, were included due to their strong community networks, relief work, and coordination of cyclone shelters.

Consultations were held in Tamil using a semi-structured format built around three themes: perceptions of shoreline change, livelihood and infrastructure needs, and gaps in shoreline planning. Notes were taken during each discussion and were reviewed at the end of the day to ensure accuracy. Where possible, information was cross-checked with site observations, local records, and discussions with more than one respondent in the same location. Recurring details were compared across districts to avoid misinterpretation. These steps helped strengthen the validity of the material used for analysis.

All consultations were conducted with the informed agreement of participants. No personal identifiers have been included in the study. Discussions were held in familiar community spaces so that respondents felt comfortable, and participation was voluntary throughout. The study followed standard ethical practice for qualitative fieldwork, including respect for confidentiality and care in handling sensitive information relating to livelihoods, displacement, and disaster impacts.

3.3 Analytical Approach

All field notes and recorded material were transcribed, translated where needed, and prepared for thematic analysis. The analysis followed an interpretive approach grounded in ideas of participatory decision-making and polycentric environmental management. The first stage organised responses by actor category to identify how perspectives vary between NGOs, women's groups, fisher cooperatives, and religious associations. In the second stage, recurring concerns were grouped into thematic clusters such as ecological restoration activities, social infrastructure demands,

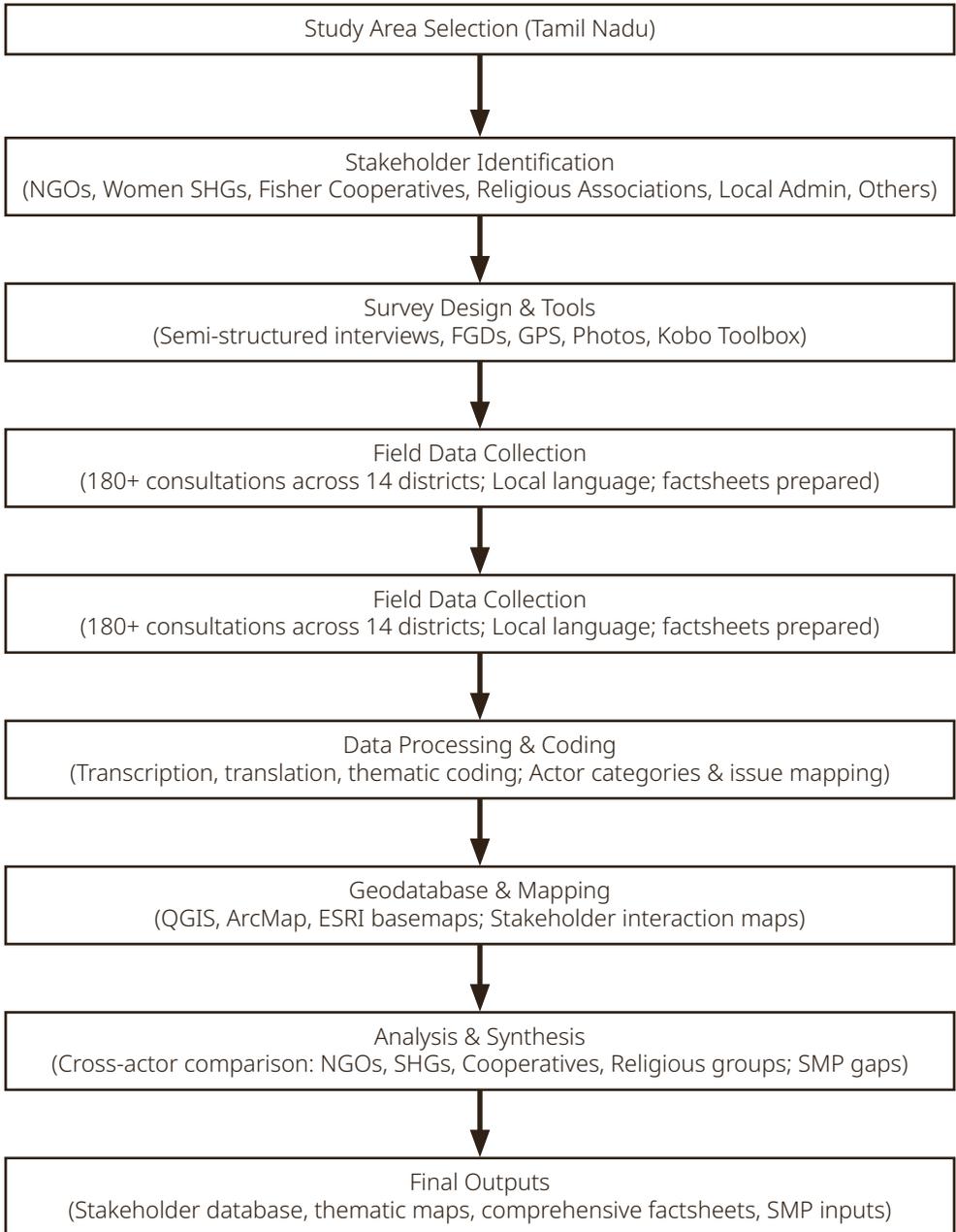


Figure 1: Methodology flowchart



livelihood security arrangements, and disaster readiness. These categories were developed inductively from the material collected in the field. Actor perspectives were then compared to highlight shared positions and areas of difference. Insights from consultations were also compared with selected SMP documentation and secondary literature to understand how community expectations converge with or diverge from formal planning priorities.

The analytical framework drew conceptually on the work of Ostrom (2009) on polycentric governance and Reed (2008) on participation, while ideas from Edwards (2011) and Ebrahim (2003) informed the interpretation of nonprofit legitimacy and accountability. Overall, the analysis sought to show how civil society in Tamil Nadu participates actively in shoreline governance and how these activities provide missing social and ecological linkages within the existing SMP structure.

4. Results

The field consultations undertaken across the fourteen coastal districts of Tamil Nadu offered a wide view of how different kinds of civil society organisations participate in shoreline governance in relation to the Shoreline Management Plan. Although the SMP provides an organised technical framework for identifying erosion hotspots and selecting coastal interventions, its practical influence at the community level remains uneven. In many sites, the process is seen as distant from everyday concerns because implementation is largely channelled through government departments and technical consultants. Civil society groups are therefore playing a bridging role. Their activities translate SMP objectives into community language, community priorities, and place-specific actions. In several cases, these interventions re-anchor the SMP within local realities, making it more than a policy document and turning it into something that people can relate to and act upon.

4.1 Civil Society within the SMP Framework

In almost all districts visited — including Chennai (Ennore, Kasimedu), Cuddalore, Nagapattinam, Thoothukudi, and Kanyakumari — respondents acknowledged that the SMP process has introduced a consistent method for classifying erosion hotspots. However, awareness of the SMP among coastal residents was generally low. People often described the SMP as a “government document” rather than a process in which they could participate. Civil society groups attempted to narrow this distance. In places such as Pichavaram, Vedaranyam, Karaikalmedu, and Manapad, NGOs, cooperatives, and religious institutions helped communicate shoreline plans in more accessible language, facilitated village-level discussions, and collected informal feedback for district authorities. In Nagapattinam and Cuddalore, civil



society groups even assisted in post-cyclone repair of dunes and vegetation. These efforts made the SMP more grounded and less abstract, showing that civil society is playing an interpretive and translational role that the formal system currently lacks. District-level institutional proceedings under the Tamil Nadu Coastal Zone Management Authority also indicate that SMP implementation has been interpreted mainly as a technical exercise rather than a participatory governance process (Government of Tamil Nadu, 2022).

4.2 NGOs as Catalysts for Participatory Implementation

NGOs emerged as the most technically engaged set of actors in this study. Their presence was particularly visible in districts where erosion and cyclone impacts have been severe, including Nagapattinam (Velankanni and Akkaraipettai), Cuddalore (Devanampattinam and Silver Beach), and Ramanathapuram (Panaikulam and Thoppukadu). In the southern wetlands around Muthupet and Vedaranyam, NGOs have been central to mangrove rehabilitation efforts, and in parts of Villupuram and Thoothukudi, they assisted in small dune-stabilisation trials. In Kalpakkam and Pudukattinam (Chengalpattu district), some organisations worked with local youth volunteers to track beach width changes using handheld GPS and simple transect lines. Other groups focused on harbour cleanliness, particularly in Pazhaverkadu and Karaikalmedu, where plastic disposal near landing centres was linked to shoreline litter loads and nearshore turbulence.

NGOs also facilitated informal discussion spaces in Nagore, Rameswaram, and Kodyakarai, where proposed groyne layouts, sand bypassing options, and harbour extensions were explained to residents. These were not official hearings, but they helped reduce distrust in places where earlier hard structures had generated social conflict. In this sense, NGOs were both field implementers of ecological interventions and brokers of technical dialogue. Their work contributed to greater openness, clearer communication, and stronger interpretation of SMP proposals among coastal communities.

4.3 Women's Self-Help Groups and the Social Foundations of Resilience

Women's self-help groups were very vocal during consultations, especially in Thoothukudi (Thiruchendur and Eral), Ramanathapuram (Mandapam West villages), and Nagapattinam (Kottaimedu and Keechankuppam). Their concerns made it clear that coastal management is not limited to protecting shorelines from erosion. For these groups, resilience also depends on the quality of everyday facilities: sanitation near fish landing points, the safety of drinking water sources, childcare spaces, and the basic design and usability of cyclone shelters. Several women described how



Keelakarai in Ramanathapuram district, mosque committees convened pre-monsoon preparation meetings, pooled small contributions for emergency repairs, and helped resolve disputes when families needed temporary relocation after storm surge damage. These institutions hold cultural authority, have established communication channels, and can mobilise volunteers rapidly even before state instructions arrive. Although they are not formally referenced within SMP documents, they provide social anchoring during shock periods and strengthen community confidence in the aftermath of extreme events. In practical terms, they represent an under-recognised institutional resource that can contribute meaningfully to coastal management and disaster preparedness.

4.6 Cross-Actor Patterns and Governance Outcomes

Viewed together, the findings indicate that civil society provides the practical links that make shoreline governance work at the local scale. Although each category of actor contributes differently, their roles support and strengthen one another in a cumulative way.

In Nagapattinam and Cuddalore, NGO led mangrove work was more than ecological restoration. Youth groups, fisheries students, and eco-clubs were involved directly in planting and care activities, which made the SMP visible as a shared community effort rather than a purely technical intervention. In Ramanathapuram, women's self-help groups highlighted drinking water salinity in Mandapam West hamlets and collaborated with panchayats to maintain small, distributed rainwater tanks, showing that secure access to freshwater shapes the speed of post-cyclone recovery.

In Tirunelveli and Thanjavur districts, fishers' cooperatives discussed dredging at Uvari and Mallipattinam, arguing that erosion management must be aligned with safe vessel access because access to the sea is a daily necessity, not a negotiating variable. In settlements near Colachel and Manapad, church and mosque committees supported temporary shelter arrangements and mediated relocation disputes after storm damage, reinforcing that trust and moral authority are fundamental for community stability during crises.

Districts where these groups were actively engaged showed stronger public acceptance of SMP measures, even though the final authority remained with government departments. In contrast, places where shoreline decisions were advanced through technical agencies alone, such as earlier industrial phases in Ennore, experienced lower awareness and higher conflict. These differences confirm that shoreline planning becomes credible only when people recognise their own priorities reflected within it.

The broader picture demonstrates that the long-term sustainability of shoreline management in Tamil Nadu relies on the structured participation of civil society. Their involvement turns SMPs from planning documents into grounded practices that



combine ecological restoration, infrastructure needs, livelihood realities, and local values. Civil society, therefore, enables SMP implementation to function as a shared governance arrangement with stronger legitimacy and greater adaptive capacity.

Table 1: Civil society contributions to shoreline governance in Tamil Nadu.

Civil Society Actor	Key Contributions	Governance Gaps Addressed
Non-Governmental Organizations (NGOs)	Mangrove restoration, waste management campaigns, promotion of artificial reefs, and climate awareness programs	SMP's neglect of nature-based solutions and ecological restoration
Women's Self-Help Groups (SHGs)	Sanitation facilities, drinking water, cyclone shelters, net-mending yards, mobile clinics, and women's safety	Overlooked gendered vulnerabilities and social infrastructure needs
Fisher Cooperatives	Demand for harbour facilities (ice plants, auction halls), dredging of tidal inlets, defense of fishing rights, disaster preparedness	Neglect of small-scale fisheries in infrastructure planning, restricted access due to ports/tourism
Religious Associations	Disaster relief (shelter, food, aid), community kitchens, rapid mobilization via trust networks, conflict mediation	Slow formal disaster response, lack of community trust in state-led relief

5. Discussion

5.1 Civil Society as a Governance Partner in Shoreline Management

The evidence from Tamil Nadu demonstrates that civil society organisations function as everyday governance partners in shoreline management. Although SMPs were conceived primarily as technical instruments for erosion control and infrastructure guidance, their implementation is often hindered by fragmented departmental responsibilities and limited community communication. Civil society organisations help bridge these gaps by aligning SMP actions with local needs, interpreting technical proposals in accessible ways, and making shoreline management more relevant at the household and settlement scales. This grounded engagement strengthens public understanding and supports more socially rooted planning.

This pattern echoes findings from coastal regions such as Indonesia, Brazil, and Vietnam, where multilayered governance involving state and community actors has improved adaptation outcomes (Alfiandri et al., 2024; Glaser et al., 2010; Nguyen et al., 2022). In Tamil Nadu, NGOs contributed to ecological restoration and monitoring, women's collectives linked resilience planning to sanitation and water access,



fisher cooperatives articulated livelihood-specific spatial concerns, and religious bodies maintained trust and coordination during emergencies. Together, these roles demonstrate that participatory engagement enhances both the legitimacy and practicality of shoreline governance, consistent with Reed's (2008) arguments on participatory legitimacy. Without civil society mediation, SMP information would remain technical and poorly communicated, reinforcing the view that civil society has moved from external observer to essential governance partner.

5.2 Comparative Perspectives and Global Relevance

Tamil Nadu's experience aligns with global cases where non-governmental actors have shaped coastal adaptation. In the Philippines, community-driven mangrove rehabilitation informed national policy (Walters 2008). In Bangladesh, hybrid coastal protection systems emerged through partnerships between NGOs and government agencies (Rahman et al. 2021). In the Netherlands, community participation under the Room for the River programme facilitated smoother implementation and reduced conflict (Roth et al. 2017). Similar influence has been documented in West Africa, where fisheries cooperatives contributed to marine spatial planning (Belhabib et al., 2015).

Tamil Nadu fits this global pattern yet differs in one important respect: SMP procedures in India do not formally require public involvement. Civil society participation, therefore, arises informally, driven by the initiative of community groups rather than statutory mandates. This dynamic suggests that civic engagement is compensating for regulatory gaps, offering insights for other regions in the Global South where formal participation frameworks remain underdeveloped. Tamil Nadu thus demonstrates that informal civic action can still exert meaningful influence on formal coastal policy and planning.

5.3 Theoretical and Institutional Implications

The findings reinforce theoretical perspectives in environmental governance that emphasise distributed authority and knowledge as essential for resilience (Ostrom 2009). Each category of civil society actor provides insights that state agencies alone cannot generate. NGOs offer detailed ecological observations, SHGs foreground gendered vulnerabilities and the social dimensions of resilience, cooperatives articulate the spatial logic of fishing livelihoods, and religious institutions provide trust, communication, and social cohesion during crises. These contributions expand shoreline governance beyond engineering considerations, integrating welfare, equity, and cultural foundations into planning. This aligns with emerging literature on co-production in coastal adaptation, which emphasises that knowledge generation, implementation, and learning must be shared across institutions (Berkes 2017; Folke et al. 2005).



The Tamil Nadu case illustrates that shoreline governance is not only about placing structures but also about enabling feedback loops and learning processes. When different actors observe and interpret different aspects of the coastline, the system becomes more reflexive and more capable of adjusting to changes or intervention shortfalls.

5.4 Policy and Governance Lessons

The results point to several practical measures for strengthening SMP implementation. First, civil society participation could be institutionalised through district-level SMP committees that include NGOs, women's groups, cooperatives, and religious institutions. Second, nature-based solutions such as mangrove rehabilitation and dune stabilisation should be formally integrated into SMP guidelines, reflecting global trends in ecosystem-based adaptation (Spalding et al. 2014; IPCC 2022). Third, capacity-building efforts could equip community groups with a clearer understanding of shoreline engineering options, enabling more informed participation. Fourth, improved communication materials are needed, as many residents interviewed had never accessed the SMP. These measures would increase transparency, reduce conflict, and help shift SMPs from technical documents into shared frameworks for coordinated local action.

5.5 Broader Implications

The findings contribute to broader discussions on climate governance across the Global South. They illustrate that resilience is not achieved solely through physical structures but through institutions that maintain cooperation, trust, and continuity. Where state capacity is stretched thin, civil society can connect national adaptation strategies with local realities, as seen in Sri Lanka, Kenya, and Fiji (Fernando 2019; Alati et al., 2020; Rudiak-Gould, 2022). The Tamil Nadu case thus reinforces the need to understand shoreline planning as a social negotiation as much as a technical exercise. This perspective is vital for policymakers designing coastal adaptation strategies in similarly complex socio-ecological settings.

5.6 Limitations and Future Research

This study relied primarily on qualitative consultations and therefore reflects the perspectives of organised civil society rather than the full spectrum of coastal stakeholders. While consultations were conducted across fourteen districts, the findings are not intended to be statistically representative. Future research could



incorporate mixed-method approaches, combining household surveys with SMP spatial datasets to strengthen the empirical linkage between community perspectives and physical shoreline change. Longitudinal studies would also be valuable for examining how civil society participation evolves over time, particularly in districts where nature-based solutions are being piloted or where shoreline regulations are undergoing revision.

Conclusion

This study set out to understand how civil society shapes shoreline governance along the Tamil Nadu coast, based on 180 consultations held across fourteen coastal districts. The evidence makes it clear that Shoreline Management Plans cannot rely on technical assessments alone. Their success depends on the involvement of organisations that work directly with communities and translate planning goals into everyday practice. The Tamil Nadu case shows that NGOs, women's self-help groups, fisher cooperatives, and faith-based institutions each perform distinct functions that support shoreline management on the ground.

NGOs have been active in ecological initiatives such as mangrove rehabilitation, reef trials, and waste reduction campaigns, while women's collectives have worked to improve sanitation, shelter safety, and access to drinking water. Fisher cooperatives have protected traditional fishing access and raised concerns about dredging and harbour design, and church, temple, and mosque committees have maintained social support systems during cyclone events. Together, these contributions turn shoreline governance into a shared process, where technical planning is linked with social well-being and community priorities.

Tamil Nadu's experience is therefore consistent with global examples in the Philippines, Bangladesh, and the Netherlands, where participation strengthened coastal adaptation outcomes. Similar patterns are also reported from parts of South Asia and East Africa, where cooperatives and women's networks have influenced coastal policy. These comparisons suggest that civil society is not simply a supporter of formal planning but an institutional partner that adds knowledge, continuity, and legitimacy.

From a theoretical perspective, the findings align with approaches that view resilience as the outcome of learning, collaboration, and distributed authority, rather than centralised control. From a policy perspective, there is a need to embed civil society participation directly into the SMP process, give formal space for nature-based solutions, and recognise the social dimensions of adaptation. Greater recognition of informal networks, especially religious and cooperative institutions, would strengthen the practical reach of SMPs during emergencies and recovery phases.

Tamil Nadu offers a useful example for other coastal regions in the Global South that face similar pressures from climate change and development. The results



reinforce a simple but fundamental insight: coastal resilience does not arise from infrastructure alone. It depends on the institutions and relationships that sustain collective action. Civil society, therefore, stands as a central pillar in building equitable, socially credible, and ecologically grounded shoreline management. National shoreline change assessments similarly recommend that community-based knowledge should be recognised as an input in coastal adaptation strategies (NCCR, 2018).

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