

Global and Local Best Practices for Advancing Community Engagement in Offshore Wind Zones in Tamil Nadu



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Acronyms

3D - Three Dimensional	65
AIS - Automatic Identification System	71
BCF - Beatrice Community Fund	69
BEIS - Department for Business, Energy and Industrial Strategy	70
BOEM - Bureau of Ocean Energy Management	59
BOWL - Beatrice Offshore Wind Farm	69
BPL - Below Poverty Line	29
CBF - Community Benefit Fund	68
CEFAS - Centre for Environment, Fisheries and Aquaculture Science	64
CLCLCs - Cluster-Level Community Liaison Committees	9
CLO - Community Liaison Officer	9
CMFRI - Central Marine Fisheries Research Institute	26
CoE-OSW - Centre of Excellence for Offshore Wind	76
COPs - Construction and Operations Plan	59
CPUE - Catch Per Unit Effort	71
CRZ - Coastal Regulation Zone	23
CSIS - Centre for Strategic and International Studies	6
CSR - Corporate Social Responsibility	76
CTU - Central Transmission Utility	23
CZMP - Coastal Zone Management Plan	34
DCO - Development Consent Order	57
DEA - Danish Energy Agency	72
DP - Decommissioning Programme	70
EEZ - Exclusive Economic Zone	22
EIA - Environmental Impact Assessment	11
ESG - Environmental Social & Governance	84
FID - Fisheries Impact & Dependency	87
FLO - Fisheries Liaison Officer	9
GAP - General Activities Plan	59
GIS - Geographic Information System	50
GPS - Global Positioning System	8
GW - Gigawatt	7
HFIG - Holderness Fishing Industry Group	64
IACs - Inter-Array Cables	14
ICLEI - International Council for Local Environmental Initiatives	26
IFC - International Finance Corporation	84
INCOIS - Indian National Centre for Ocean Information Services	23
INTOG - Innovation and Targeted Oil & Gas	62
ISRO - Indian Space Research Organisation	23
ITT - Invitation to Tender	53
KMs - Kilometres	14
MDB - Multilateral Development Banks	25
MMO - Marine Management Organisation	68
MNRE - Ministry of New and Renewable Energy	6
MoA - Memorandum of Agreement	6
MoEF&CC - Ministry of Environment, Forest and Climate Change	23
MoES - Ministry of Earth Science	34
MOU - Memorandum of Agreement	60
MSP - Marine Spatial Planning	8
MSSRF - M S Swaminathan Research Foundation	26
MW- Megawatt	14
NCCR - National Centre for Coastal Research	24
NCSCM - National Centre for Sustainable Coastal Management	26
NEET - Not in Education, Employment, or Training	84

NGO - Non-Governmental Organisations	11
NIOT - National Institute of Ocean Technology	75
NIWE - National Institute of Wind Energy	6
NSIPs - Nationally Significant Infrastructure Projects	57
O&M - Operations and Maintenance	10
OSS - Offshore Substations	14
OSW-Offshore Wind	6
PDA - Project Development Area	50
PPA - Power Purchase Agreements	17
PRA - Participatory Rural Appraisal	51
PS - Performance Standard	84
Q&A - Question and Answer	65
RVO - Rijksdienst voor Ondernemend Nederland	70
SAP - Site Assessment Plan	59
SCZMA - State Coastal Zone Management Authority	26
SDMRI - Suganthi Devadason Marine Research Institute	26
SHGs - Self Help Groups	26
SIA - Social Impact Assessment	11
SMZ - Scallop Mitigation Zone	42
SoCC - Statement of Community Consultation	57
STU - State Transmission Utility	23
TAFCOFED - Tamil Nadu State Fisheries Cooperative Federation	24
TANTRANSCO - Tamil Nadu Transmission Corporation	24
TCE - The Crown Estate	50
TEDA - Tamil Nadu Energy Development Agency	24
TNMFRA - Tamil Nadu Marine Fishing Regulation Act	34
TNPCB - Tamil Nadu Pollution Control Board	90
TNSFDC - Tamil Nadu State Fisheries Development Corporation	24
UK - United Kingdom	8
UMass - University of Massachusetts Amherst	6
UN SDG - United Nations Sustainable Development Goals	69
UNESCO - United Nations Educational, Scientific and Cultural Organization	43
VGf - Viability Gap Funding	7
VISP - Vizhinjam International Seaport Project	45
VMS - Vessel Monitoring System	71
VR - Virtual Reality	40
WTGs - Wind Turbine Generators	14

Acknowledgement

This report aims to offer a practical framework for Indian authorities and developers, with a particular focus on Tamil Nadu, where the OSW sector is emerging and coastal communities (in particular fishing communities) present unique socio-economic contexts.

The report draws on both primary and secondary research. Its inception and guidance are rooted in the Memorandum of Agreement (MoA) signed between the University of Massachusetts Amherst, USA and the National Institute of Wind Energy (NIWE), India, facilitated by the Centre for Strategic and International Studies (CSIS). This MoA established the foundation for inter-institutional cooperation and has shaped the collaborative spirit behind this report.

We extend our formal acknowledgment to the all the partner institutions and industry stakeholders whose contributions and collaboration have been integral to the successful preparation of this report. Refer to [Appendix A, B and C](#) for the detailed methodology adopted for this report, list of stakeholders consulted, and the detailed research framework.

About NIWE



The National Institute of Wind Energy (NIWE), established in 1998 in Chennai under the Ministry of New and Renewable Energy (MNRE), is an autonomous R&D institution dedicated to advancing India's wind energy sector. NIWE provides comprehensive solutions through research, testing, certification, and resource assessment. Its Wind Turbine Test Station at Kayathar, supported by DANIDA, enables world-class testing facilities. The institute operates through specialized divisions focusing on innovation in turbine components, type certification, standardization, grid integration, and safety testing. It also conducts wind resource mapping, performance evaluations, and offers skill development programs, including national and international training workshops. As a knowledge hub, NIWE disseminates critical information via its quarterly newsletter PAVAN, supporting stakeholders and promoting sustainable wind energy growth across the country. Learn more at: [About Us | NATIONAL INSTITUTE OF WIND ENERGY](#)

About University of Massachusetts Amherst:



The University of Massachusetts Amherst, founded in 1863, is a leading public land-grant research university and the flagship campus of the UMass system. Located in Amherst, Massachusetts, it is renowned for academic excellence, innovation, and commitment to advancing knowledge across diverse disciplines. The [Wind Energy Center](#) at UMass is the oldest research center in the USA focused on education and research into land-based and offshore wind energy systems. The [Ocean Resources and Renewable Energy Laboratory](#) at UMass runs a US Department of Energy certified wave-current laboratory and is focused on marine renewable energy and offshore food production and ecosystems.

Executive Summary

The primary aim of this assessment is to create a practical, actionable framework to support Indian planning authorities and developers in implementing effective community engagement for offshore wind (OSW) projects. Given the early stage of India's OSW sector, particularly in Tamil Nadu, and the socio-economic sensitivities of coastal communities, the study seeks to address gaps in current engagement practices by leveraging global best practices.

India's OSW sector is undergoing a major transition, with the Government of India shifting from an earlier phased roadmap to a parallel, dual model tendering approach in 2023-24, releasing both viability gap funding (VGF)¹ based government led pilot tenders (Model A) and commercial seabed leasing tenders (Model B) simultaneously. Following limited developer response and concerns related to grid readiness, and tariff viability, the Ministry of New and Renewable Energy (MNRE) paused seabed leasing activities and approved a renewed VGF package of INR 7,453 crore to support 1 gigawatt (GW) of OSW in Tamil Nadu and Gujarat. As of late 2025, the National Institute of Wind Energy (NIWE) is completing updated wind and metocean measurements, with new tenders expected in early 2026. While India's auction design continues to evolve, Tamil Nadu remains a priority zone due to its strong wind resource and infrastructure base.

Regardless of future policy shifts, whether through revised VGF structures, updated leasing frameworks, or hybrid models, the established best practices for community engagement will invariably be fundamental to the successful implementation of OSW projects in Tamil Nadu region.

The key learnings and best practices presented in this assessment are grounded in a mixed-methods research approach that draws on secondary literature, targeted consultations with developers, government stakeholders, NGOs, and domain experts, and comparative case study analysis. This approach enabled the study to extract globally relevant lessons and tailor them to Tamil Nadu's institutional and community context. Refer to [Appendix A, B and C](#) for the detailed methodology adopted for this report, list of stakeholders consulted, and the detailed research framework.

¹ Viability Gap Funding (VGF) is a form of financial support provided by Government of India to make OFW projects commercially viable by bridging the gap between project cost and achievable tariff. Ministry of New and Renewable Energy (MNRE). (2022). *Strategy Paper for Establishment of Offshore Wind Energy Projects in India*. Government of India

Key Learnings

- **Tamil Nadu's fishing community is diverse and small-scale:** Tamil Nadu's fishing community is densely populated and primarily engaged in small-scale fishing, characterised by diversity in socio-economic backgrounds, fishing practices, species cultivated, and livelihood patterns.
- **Informal navigation systems limit spatial accuracy:** Tamil Nadu's coastal fishing communities primarily rely on traditional navigation methods rather than formal global positioning system (GPS) systems. This informal approach means that most fishing grounds remain undocumented, creating challenges for precise spatial planning.
- **Stakeholder diversity and low GPS penetration demand participatory MSP:** The high diversity among coastal stakeholders, combined with limited adoption of GPS technology, necessitates participatory marine spatial planning (MSP). Governments and developers should integrate traditional knowledge through collaborative mapping exercises to ensure inclusivity and minimise spatial conflicts in site selection.
- **Community engagement is strategic, not peripheral:** Effective community engagement is a cornerstone of successful OSW projects. When embedded throughout the project lifecycle, as an ongoing, strategic process, it enables two-way participation, builds trust, addresses concerns early, and strengthens project resilience. Poorly structured engagement has led to delays, disputes, and cancellations in global OSW projects.
- **Case studies offer actionable insights:**
 - East Anglia ONE, United Kingdom (UK) and Hornsea Project One (UK) have demonstrated how early, immersive engagement can lead to public acceptance and regulatory success.
 - In contrast, Navitus Bay (UK), Yeonggwang-Gun (South Korea), and Vizhinjam Port (India) have shown that procedural or poorly planned and managed engagement can erode trust and derail projects.
- **Effective community engagement requires shared responsibility:** Effective community engagement in OSW projects hinges on a well-defined, phased distribution of responsibilities between governments and developers. Governments should lead in institutionalising inclusive frameworks, including policy design, site identification, and baseline surveys, ensuring that engagement processes are embedded in governance structures. Developers, in turn, are responsible for implementing these frameworks, taking ownership during permitting, licensing, and project execution phases. This dual

approach fosters accountability, clarity, and sustained trust throughout the project lifecycle.

- **Government-led early planning is essential for inclusive MSP and transparent site selection:** In the pre-approval and planning phase, governments should conduct comprehensive stakeholder mapping and species baseline studies to systematically capture ecological, fisheries, and community considerations within the identified offshore wind zones. These inputs should inform marine spatial planning decisions. Governments should also establish Cluster-Level Community Liaison Committees (CLCLCs) at this stage to enable structured dialogue, improve transparency, and reduce spatial conflicts. Developers should be responsible for actively integrating this evidence and engagement process into project design to ensure socially and environmentally responsible project development.
- **Community benefit-creation should be embedded in developer selection:** Building long-term trust with coastal communities requires governments to clearly define community engagement and benefit-creation obligations within developer selection criteria, mandating both financial benefits (e.g., compensation, community funds) and non-financial benefits (e.g., skills development, social initiatives) in bidding processes. Developers, in turn, must integrate benefit-creation early in project design, ensuring these commitments are not treated as add-ons but as risk-reduction and trust-building measures. Clear guidance on mandatory versus voluntary schemes, aligned with global best practices, enables developers to craft robust engagement strategies and local partnerships.
- **Permitting and licensing should require public participation and clear developer accountability:** Governments should require public participation as a core component of permitting and licensing processes. This should include obligations for developers to conduct comprehensive stakeholder mapping, undertake mandatory consultations with fishing communities, and comply with leasing protocols that clearly define compensation frameworks for fisheries-related impacts. Developers should implement these requirements by appointing Community Liaison Officers (CLOs) and Fisheries Liaison Officers (FLOs) to enable regular and structured coordination with communities. Additionally, developers should design inclusive and innovative awareness campaigns in local languages and culturally relevant formats to foster trust and minimise friction.
- **Continuous community engagement during construction and operations is essential for building long-term trust:** Governments should require ongoing and inclusive community engagement beyond the licensing stage, with clear expectations that engagement continues throughout construction and operations and maintenance

(O&M). This should include sustained involvement of Community Liaison Officers (CLOs) and Fisheries Liaison Officers (FLOs) during these phases. Developers should be responsible for maintaining accessible communication and grievance mechanisms, including centralised and digital platforms, providing regular and timely updates on marine activities, and managing flexible, community-driven benefit funds with a defined allocation for fisheries. Timely delivery of agreed commitments, such as community funds, skills development initiatives, and other social value measures, supported by culturally appropriate communication and regular local engagement, is critical to maintaining trust and managing impacts during project implementation.

- **Responsible decommissioning requires early legal mandates and developer-led engagement:** Governments should mandate community consultations well before decommissioning, ideally two years prior, and establish clear legal liabilities and timelines for site restoration to prevent last-minute disputes. Developers should create and implement a comprehensive decommissioning engagement strategy, ensuring ongoing CLO and FLO involvement, and maintaining centralised digital hubs for communication and grievance redressal. Delivering pre-agreed compensation and dispute resolution mechanisms alongside transparent updates ensures accountability and trust during the final project phase.

Key Recommendations for Community Engagement for Government and Developers in Tamil Nadu

The report recommends a Community Engagement Toolkit for Tamil Nadu's offshore projects, assigning government to ensure inclusive, transparent governance and developers to deliver culturally sensitive engagement and fair benefits.

Phase	Key Responsibilities for the Government	Key Responsibilities for the Developer
Pre-Approval and Planning	● Establish CLCLCs as focal points for OSW coordination ● Validate pre-identified OSW development areas using participatory MSP and species baseline studies	—
Developer Selection	● Strengthen bid submission criteria to include community consultation plans ● Strengthen bid submission criteria to include community benefit plans	● Establish partnerships with local non-governmental organisations (NGOs) and community institutions for long-term engagement ● Develop and submit detailed stakeholder engagement plan and community benefit plan
Permitting and Licensing	● Strengthen lease protocols to include community consultation ● Strengthen lease protocols to include compensation frameworks for fisheries impact ● Develop a centralised OSW portal for licensing transparency	● Appoint CLOs/FLOs to interface with government-recognised CLCLCs and local communities ● Conduct species baseline study and demonstrate coexistence potential; ensure monitoring framework is in place for entire project lifecycle ● Share non-technical disclosures via local channels, disseminate accessible environmental impact assessment (EIA)/social impact assessment (SIA) summaries in Tamil and visual formats,

Phase	Key Responsibilities for the Government	Key Responsibilities for the Developer
		use culturally resonant engagement formats (e.g., storytelling, local events)
Construction and O&M	● Mandate community liaison operations during construction and O&M phases	● Ensure ongoing CLO and FLO engagement throughout construction and O&M and phases ● Establish centralised and digital hubs for communication and grievance procedures ● Deploy flexible, community-driven benefit funds to strengthen local engagement and deliver lasting social and economic impact with a designated percentage ringfenced specifically for fisheries ● Launch real-time marine activity updates platform
Decommissioning	● Mandate public hearings, 2 years prior to decommissioning ● Clarify liability transfer	● Establish pre-agreed compensation dispute resolution framework ● Deploy CLOs/FLOs throughout Decommissioning phase

Way Forward

Tamil Nadu's OSW programme is at a formative stage, offering a rare opportunity to design a socially inclusive and environmentally responsible development model. With auctions postponed and VGF under reassessment, this timing is fortuitous for implementing the report's recommendations, such as embedding transparent engagement, robust safeguards, and climate risk integration from the outset. Leveraging lessons from mature global markets while tailoring solutions to local contexts can help avoid common pitfalls and ensure that OSW advances energy goals while strengthening coastal resilience, equity, and trust.

1 Assessment of Current Scenario and Stakeholder Analysis



1 Assessment of Current Scenario and Stakeholder Analysis

1.1 Current Scenario of Offshore Wind Development in Tamil Nadu

The Tamil Nadu Offshore Wind Energy Project marks a key regional component in India's broader transition toward harnessing clean energy from the sea. Led by MNRE and implemented through NIWE, the project focuses on developing OSW farms in the Gulf of Mannar. Along with Gujarat, Tamil Nadu was selected for this initiative due to its strong and consistent sea winds (average ~8 m/s at 100 m height)², and proven experience in onshore wind energy development³.

The first phase of the project proposes to establish a 500 megawatt (MW) OSW farm located about 20 to 40 kilometres (KMs) from the coast. It will use wind turbine generators (WTGs) ranging between 8 MW and 12 MW each, supported by specialised offshore and onshore systems designed for efficient grid integration. Throughout this report, the term 'Project' refers to OSW developments comprising marine-based WTGs (fixed foundations), inter-array cables (IACs), offshore substations (OSS), export cables and associated onshore infrastructure, including substations, grid connections, and ports.

Beyond its energy contribution, Tamil Nadu's strong industrial base presents opportunities to localise elements of the OSW supply chain. The state's existing competencies are underpinned not only by its strong onshore wind manufacturing base such as blades, gearboxes, nacelles, and towers, but also by its broader industrial ecosystem supporting sectors like marine engineering and offshore oil and gas⁴ which can be leveraged while new opportunities in offshore foundations and large scale logistics can emerge with clearer policy direction and seabed auction timelines. With appropriate government commitments and a clear tender trajectory, Tamil Nadu could attract new investments, establish manufacturing hubs for offshore foundations and related infrastructure, and create skilled employment opportunities.

² ICLEI South Asia. (2025, October). *Roadmap on Offshore Wind Energy for Tamil Nadu*. ICLEI Local Governments for Sustainability. Retrieved from

³ NIWE. (2023). *Tamil Nadu Offshore Wind Development: Technical Briefing Document*. https://niwe.res.in/technical_reports/

⁴ Ocean Energy Pathway. (2025, February). *Tamil Nadu offshore wind manufacturing supply chain investment study*. https://oceanenergypathway.org/wp-content/uploads/Tamil-Nadu-Offshore-Wind-Manufacturing-Supply-Chain-Investment-Study_Feb-2025_FINAL.pdf

Given the proximity of many coastal and fishing communities to the proposed development zones, their involvement will be essential to ensure equitable growth and minimise disruptions. The Government's phased approach; starting with a pilot phase supported by public funding and later expanding to full commercial development; will allow for gradual learning, adjustments, and confidence building among local stakeholders and industry participants⁵.

1.1.1 Project Approach and Project Location

Approach

To enable the planned rollout of OSW in Tamil Nadu and Gujarat, the Government of India, through MNRE and NIWE, had adopted a dual model development framework. Although originally conceptualised as a sequential, phased approach, this structure was revised when both Model A (VGF-based) and Model B (non-VGF lease-based) tenders were released simultaneously in June 2023, signalling a shift toward a parallel development strategy rather than a phase based approach^{6 7}. In parallel, the Government of India approved a renewed VGF package of INR 7,453 crore to support 1 GW of OSW in Tamil Nadu and Gujarat, aiming to enhance bankability and investor uptake⁸. As of late 2025, MNRE has signalled that new tenders are expected in early 2026, following updated wind measurements and metocean studies being completed by NIWE⁹. These developments indicate that India is moving toward a flexible, iterative tendering approach, with ongoing policy adjustments to improve feasibility while keeping Tamil Nadu and Gujarat as priority zones for commercial scale OSW development. The details of the preliminary Model based parallel development approach are as follows:

Model A: Government-Led Pilot Projects:

Model A: Government led pilot projects where MNRE and NIWE manage site preparation and studies, while private developers focus on construction and operations. Projects receive VGF, with seabed leases provided free of cost.

⁵ World Bank. (2023). *Offshore Wind Roadmap for India: Supporting the Development of Offshore Wind Energy in Tamil Nadu and Gujarat*. <https://documents.worldbank.org/en/publication/documents-reports>

⁶ MNRE. (2023). *Notice inviting expressions of interest and bids for offshore wind development (Models A and B)*. Government of India. <https://mnre.gov.in/en/off-shore-wind/>

⁷ Press Information Bureau. (2023, June 9). *Government invites bids for offshore wind projects off Tamil Nadu and Gujarat coasts*. Government of India.

<https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=2001947>

⁸ Press Information Bureau (PIB). (2024). *Cabinet approves Viability Gap Funding for 1 GW offshore wind development*. Government of India. Retrieved from

<https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=2026700>

⁹ Times of India. (2025). *Offshore wind tender for Tamil Nadu likely by February 2026*: MNRE.

<https://timesofindia.indiatimes.com/business/india-business/offshore-wind-tender-for-tamil-nadu-likely-by-february-2026-mnre/articleshow/124989148.cms>

- **Project size:** Two OSW zones of 500 MW each, one off the coast of Tamil Nadu and another in Gujarat have been identified as pilot sites.
- **Structure:** In this initial phase, the government undertakes the early survey work such as OSW resource assessment, environmental screening, geotechnical and geophysical surveys, and transmission planning^{10, 11}.
- **Developer role:** Private developers will be selected through a competitive bidding process and will have responsibility for construction, O&M and decommissioning¹².
- **Support mechanism:** Projects will receive VGF to ensure financial viability. Seabed leases will be issued by NIWE at no cost.
- **Timeline:** The commissioning of the pilot projects is expected within 48 months of lease finalisation.

10 MNRE. (2022). *Strategy Paper for Establishment of Offshore Wind Energy Projects*.
<https://cdnbbsr.s3waas.gov.in/s3716e1b8c6cd17b771da77391355749f3/uploads/2023/01/20231030434921961.pdf>.

11 NIWE. (2023). *Tamil Nadu Offshore Wind Development: Technical Briefing Document*.
https://niwe.res.in/technical_reports/

12 MNRE. (2023). *Offshore Wind Energy Lease Rules, 2023*. Government of India
<https://cdnbbsr.s3waas.gov.in/s3716e1b8c6cd17b771da77391355749f3/uploads/2023/12/202312208216880.pdf>

Model B: Developer-Led Commercial Projects (Non-VGF, Lease-Based)

Model B: It reflects a commercial market driven approach where private developers are responsible for both project development and grid connection. Power can be sold via long-term Power Purchase Agreements (PPAs) or can be sold directly in the open market.

- **Project size:** Under Model B, MNRE intends to lease 1 GW or more of OSW capacity off the coasts of Tamil Nadu and Gujarat through commercial tenders, extending beyond the pilot scale.
- **Structure:** This models transitions from government led pilot projects to developer driven commercial projects, where private entities take full responsibility for project development, financing, construction, and operation.
- **Developer role:** Developers to manage both technical execution and power offtake, including grid evacuation and fully independent lease-based development.
- **Support mechanism:** Unlike Model A, VGF will not be provided under this Model. Non-VGF OSW projects are those projects which are developed without government financial assistance, where developers will recover investments through long term PPAs, merchant market sales, or corporate PPAs, depending on the selected business model.
- **Policy and oversight:** MNRE and NIWE will oversee lease allocation, ensure compliance with environmental and maritime regulations, and facilitate grid connectivity planning.
- **Timeline:** Commercial projects under Models B are expected to be commissioned within four to six years of lease award, depending on site readiness, environmental clearance, and grid infrastructure availability¹³.

¹³ Press Information Bureau. (2023, June 9). *Government invites bids for offshore wind projects off Tamil Nadu and Gujarat coasts*. Government of India .
<https://www.pib.gov.in/PressReleaseframePage.aspx?PRID=2001947>

Table 1.1 Comparative Analysis of Parallel Approach Under Model A and Model B

Parameter	Government Led Pilot Projects (Model A)	Developer Led Commercial Project (Models B)
Project Scope	500 MW (TN) + 500 MW (GJ) pilots	Expansion beyond 1 GW
Developer Responsibility	Construction & O&M only	Full lifecycle incl. financing
Seabed Lease Model	Provided by NIWE	Auction-based lease
Grid Connectivity	Early transmission planning supported by MNRE/NIWE.	Handled by developers
Support Mechanism	VGF support	Market-based (PPAs/merchant)
Risk Profile	Low risk for developers	Higher developer risk
Timeline	48-month timeline	Developer-driven timeline
Institutional Learning	Building capacity for govt institutions	Scales oversight capacity
Community Engagement	Early feedback & interaction	Developer-led strategy
Environmental Monitoring	Monitored at limited scale	Larger scale
Strategic Role	De-risking & groundwork	Unlocks investment & competition

Source: MNRE, 2022; Centre of Excellence for Offshore Wind, 2024¹⁴**Project location**

The proposed Tamil Nadu OSW Project is strategically located to optimise both OSW resource potential and infrastructure feasibility.

- OSW Farm Coordinates: The proposed wind farm will be located at ~10.4104° N latitude and 80.0623° E longitude, placing it within India's southeastern offshore zone in the Bay of Bengal¹⁵. This zone benefits from consistent monsoonal wind,

¹⁴ Centre of Excellence for Offshore Wind. (2024, June). *Power evacuation study for offshore wind projects in Tamil Nadu and Gujarat*. https://coe-osw.org/wp-content/uploads/2024/06/Power-Evacuation-Study_June2024.pdf
¹⁵ NIWE. (2023). *Tamil Nadu Offshore Wind Development: Technical Briefing Document*. https://niwe.res.in/technical_reports/

relatively shallow seabed conditions, and proximity to major ports such as Chennai and Tuticorin, which enhances construction and grid-integration feasibility.

- **Wind conditions:** Tamil Nadu's OSW regime is considered among the strongest and most stable in the Indian subcontinent, with annual average OSW speeds of 8.0–10.5 m/s at 100 m hub height, placing it within the lower range of North Sea wind conditions, which typically exceed 10–11.5 m/s^{16,17}. While not as extreme as the North Sea, Tamil Nadu offers a high-quality, low-turbulence wind profile, supplemented by a long coastline, predictable monsoon cycles, and large contiguous seabed areas suitable for utility scale deployment. These conditions make Tamil Nadu technically favourable OSW zone in India and a region capable of supporting multi gigawatt installations.
- **Onshore infrastructure:** Key onshore infrastructure, including substations and transmission lines, are planned near Kayathar and Ottapidaram in the Thoothukudi district. These areas have been selected due to their proximity to the array area (the area where the turbines are located) and their connectivity to the existing power grid. Export cables are expected to make landfall along the coastal areas of Thoothukudi, helping minimise route complexity and environmental disturbance. Existing substations at Udayathur, Sangneri and Avarikulam will also support grid integration¹⁸.
- **Proximity to coastline:** The array areas are located at distances ranging from 10 to 60 kms from the shoreline, allowing for optimal wind conditions while maintaining access for construction and maintenance.
- **Proximity to populated areas:** The project is located off the coast of Kanyakumari, Thoothukudi, and Ramanathapuram. Each of these areas are coastal districts with nearby local communities. These locations were considered during planning with stakeholder considerations and logistics considered.
- **Water depth:** The project area lies in shallow waters at depths ranging from 20 to 60 meters¹⁹, which are suitable for fixed bottom WTG foundations.

16 India Meteorological Department (IMD). (2022). *Cyclone Vulnerability and Seasonal Climate Assessment*. Government of India

17 NIWE. (2023). *Offshore Wind Resource Assessment and Development Zones—Tamil Nadu & Gujarat*. Chennai: NIWE.

18 Centre of Excellence for Offshore Wind. (2024, June). *Power evacuation study for offshore wind projects in Tamil Nadu and Gujarat*. https://coe-osw.org/wp-content/uploads/2024/06/Power-Evacuation-Study_June2024.pdf

19 Centre of Excellence for Offshore Wind. (2024, June). *Power evacuation study for offshore wind projects in Tamil Nadu and Gujarat*. https://coe-osw.org/wp-content/uploads/2024/06/Power-Evacuation-Study_June2024.pdf

- **Environmental and fishing zone considerations:** The site selection process ensured minimal overlap with protected marine areas and traditional fishing zones, to minimise both environmental and socio-economic impacts²⁰.

1.1.2 Technology and Infrastructure

The project is planned with infrastructure designed to ensure efficient power generation, minimal environmental disruption, and long-term maintainability. Although subject to change but the details of the preliminary project infrastructure proposed can be seen in **Table 1.2**.

Table 1.2 Proposed Project Components

S.N.	Component	Detail
1	Turbine Type & Quantity	~33 WTGs in VGF and 33WTGs in Non-VGF , fixed-bottom foundations ²¹ .
2	Turbine Installation	To be conducted using specialised vessels with high-capacity cranes, following offshore safety and construction standards
3	Turbine Capacity	Between 8 MW and 12 MW per turbine
4	Offshore Substations (OSS)	2 substations, each with 500 MW capacity
5	Onshore Substations	Located at Udayathur, Sanganer, and Avarikulam
6	Transmission Lines	New infrastructure planned to connect offshore power to the regional grid through a transmission line of 66Kv. OSS 1 in VGF zone, OSS2 in Non-VGF zone
7	Inter-array & Export Cables	16 IACs (8 per OSS), with each OSS equipped with two 315 Mega Volt Ampere (MVA) transformers (66/230 kV)
8	Subsea Cable Route	OSS to Avarikulam Substation; route avoids fishing harbours, landing centres, airports, biodiversity areas, tourist & archaeological sites
9	O&M Infrastructure	O&M facility and coastal access points to be constructed near coast for long-term operations

Source: CoE for Offshore Wind and Renewable Energy. (2014). Tamil Nadu OWF preliminary layout. Power evacuation infrastructure study: Requirements, costs, and timelines for OSW farms in Gujarat

20 Centre of Excellence for Offshore Wind. (2024, June). *Power evacuation study for offshore wind projects in Tamil Nadu and Gujarat*. https://coe-osw.org/wp-content/uploads/2024/06/Power-Evacuation-Study_June2024.pdf

21 Centre of Excellence for Offshore Wind. (2024, June). *Power evacuation study for OSW projects in Tamil Nadu and Gujarat*. https://coe-osw.org/wp-content/uploads/2024/06/Power-Evacuation-Study_June2024.pdf

and Tamil Nadu.

1.1.3 Regulatory Context

India's OSW is anchored by the National Offshore Wind Energy Policy (2015) and is supported by MNRE and NIWE, which are responsible for policy oversight, seabed management, and technical facilitation. **Tables 1.3, 1.4 and 1.5** outline the policies, permitting requirements across project stages, and the roles of institutions and stakeholders that shape project planning and compliance.

In 2023-24, MNRE issued parallel tenders under both Model A (VGF-based government-led pilot sites) and Model B (commercial seabed leasing), departing from the earlier sequential or phased roadmap. Subsequent stakeholder consultations and slow industry response led to a pause and reassessment of the seabed leasing framework, driven by concerns over grid readiness, tariff-bankability, viability without VGF support, and long-term risk allocation for developers. These developments reflect a broader recalibration of India's OSW strategy as the government weighs alternative auction designs and market enabling mechanisms.

While **Table 1.3** outlines the institutional roles and applicable regulatory components, the sector is currently undergoing a significant transition in its auction and development approach.

Within this evolving policy landscape, community engagement remains a critical and non-negotiable requirement, irrespective of whether the government pursues VGF-based pilots, revised lease-based models, or hybrid approaches. As Tamil Nadu continues to be a priority development zone due to its strong wind resource, port connectivity, and industrial ecosystem, the sector's success depends on proactive engagement with coastal communities whose livelihoods intersect with potential project areas. The permitting processes and institutional responsibilities mapped in **Tables 1.4 and 1.5** highlight the multiple decision points where social considerations must be integrated. Therefore, the engagement principles and strategies outlined in this report remain applicable across different auction pathways and can help reduce conflict, build trust, and ensure that future OSW development aligns with community needs and social safeguards even as the national auction design continues to evolve.

Table 1.3 Policy Framework

S.N.	Component	Detail
1	National Policy	- National Offshore Wind Policy (2015) enables OSW in India's territorial waters and Exclusive Economic Zone (EEZ); It outlines institutional responsibilities, project planning procedures, and the role of MNRE as the nodal ministry for sector development. - Offshore Wind Energy Lease Rules (2023) was issued to regulate seabed leasing, permitting, and operational requirements for OSW developers under MNRE. Importantly, the Lease Rules also govern anchoring and the use of fixed fishing gears within leased OSW zones, as defined under Rule 6, sub-rule (1), clause (iii)(d)—a provision intended to prevent safety risks and operational conflicts between fishing and OSW activities - Additionally, MNRE issued a "<i>Strategy Paper for Establishment of Offshore Wind Projects</i>" (Revision 02, Sept 2023), detailing three development models (Model-A, B, and C) to streamline project allocation, VGF, and exclusive seabed access phases
2	Nodal Ministry	MNRE: Responsible for overall policy, coordination, and strategic planning
3	Implementing Agency	NIWE, Chennai: Facilitates zone identification, conducts resource assessments, leads bidding, and provides single window clearances
4	Priority State	Tamil Nadu has been identified as a priority state for OSW development, with pre-surveyed zones and supporting infrastructure

Table 1.4 Permitting and Approval Process

S.N.	Stage	Requirement
1	Zone Allocation	OSW blocks will be allocated through competitive bidding led by NIWE, 5-year survey and 30-year lease for construction and operation
2	Surveys & Studies	Developers must carry out meteorological, oceanographic, and bathymetric surveys. Approvals are required from the Ministry of Defence, Directorate General Shipping, and Indian National Centre for Ocean Information Services (INCOIS)
3	Environmental Clearances	Clearance from the Ministry of Environment, Forest and Climate Change (MoEF&CC), including EIA and coastal regulation zone (CRZ) approvals
4	No Objection Certificate (NOC)	- Objection Certificates must be obtained from: - Ministry of Defence - Ministry of Home Affairs - Ministry of Petroleum & Natural Gas - Ministry of External Affairs - Ministry of Shipping - Indian Space Research Organisation (ISRO)/Department of Space - State Maritime Boards and Coastal Zone Authorities
5	Transmission & Grid Integration	Coordination with Central Transmission Utility (CTU) or State Transmission Utility (STU) is required for power evacuation through export cables/ export and grid connection
6	Port & Marine Access	Construction and O&M activities need approvals from relevant port authorities for use of port infrastructure, vessel access, and logistics support
7	Decommissioning Plan	A detailed decommissioning and site restoration plan, including financial guarantees, must be submitted prior to construction
8	Security & Insurance	OSW zones are classified as restricted security zones. Engagement with and approval from the Offshore Defence Advisory Group is mandatory. Developers are also required to secure marine insurance coverage
9	Operation Certification	After construction, NIWE issues a certificate of operational readiness upon compliance verification

1.2 Stakeholder Overview and Analysis

Tamil Nadu's OSW sector involves a wide and interconnected network of stakeholders whose coordination is crucial for successful, and inclusive project delivery. Stakeholders can broadly be grouped into regulators and policymakers, project developers, and industry actors, directly affected communities, indirectly impacted communities, and supporting or intermediary organisations.

At the national level, the NIWE serves as the primary agency responsible for OSW development. It leads technical studies, identifies suitable sites for wind farm development, and works closely with the MNRE to ensure alignment with national renewable energy goals²².

The National Centre for Coastal Research (NCCR) contributes to these efforts by developing marine spatial plans and conducting oceanographic studies that help identify sustainable and environmentally suitable locations for project development²³ which contribute data on bathymetry, biodiversity, and coastal zoning.

At the state level, the Tamil Nadu Transmission Corporation (TANTRANSCO), and Tamil Nadu Energy Development Agency (TEDA) play a facilitative role in transmission planning, port readiness, and stakeholder coordination. The Tamil Nadu State Fisheries Cooperative Federation (TAFCOFED), the Department of Fisheries, and the Tamil Nadu State Fisheries Development Corporation (TNSFDC) are central to ensuring that OSW projects respect local livelihoods and community priorities²⁴. District administrations and coastal panchayats also play a key role in facilitating engagement with fisher folk communities and ensuring that local concerns are addressed.

While traditional fishing groups are among the most directly affected stakeholders, other community members such as salt pan workers, small-scale traders, tourism operators, boat repairers, transport workers, and women involved in seafood processing also rely on coastal and marine ecosystems for their livelihoods. Seaweed harvesters, many of whom are women dependent on shallow water habitats, also form an important group whose access and income may be affected by changing marine use patterns.

²² MNRE. (2023). *Offshore Wind Energy Lease Rules, 2023*. Rule 2

https://mnre.gov.in/img/documents/uploads/file_f-1697799468955.pdf

²³ Centre of Excellence for Offshore Wind. (2022). *Marine Spatial Planning for Offshore Wind in India*.

Ministry of Earth Sciences, Government of India https://coe-osw.org/wp-content/uploads/2022/11/Marine-Spatial-Planning-Report-TN_CoE_final.pdf

²⁴ Fisheries Department Tamil Nadu. (2024). *Annual Report 2023–24*. Department of Fisheries, Government of Tamil Nadu

These groups may experience both positive and negative impacts from OSW development, ranging from new economic opportunities to restricted access or livelihood disruption. Including these groups in engagement processes is essential to recognising indirect dependencies and promoting fair benefit creation.

In addition to marine-based livelihoods, several non-fishers in the same coastal community groups may experience indirect effects from OSW development. These include agricultural and pastoral households, landless labourers, small business owners, construction workers, and members of women's microenterprise groups. Although their livelihoods are not exclusively tied to fishing, they depend in varying ways on coastal and marine spaces, local supply chains, and the functioning of fishing economies. Supporting infrastructure, such as substations, access roads, and transmission corridors, may also influence land use and local markets. Temporary worker immigration during construction may increase demand for housing and basic services, affecting local institutions such as schools, health centres, and community facilities. Such influxes can also disrupt community life and introduce new social risks including alcohol misuse, drug use, interpersonal conflict, and gender based safety concerns, if not managed properly. Recognising and proactively engaging with these indirectly affected groups is therefore essential to ensure that OSW development supports balanced, inclusive regional growth and that potential negative impacts are anticipated and mitigated through robust developer led social management measures.

Civil society organisations, including Dakshin Foundation and local NGOs, play a significant role in promoting dialogue, participatory mapping, and community-based monitoring²⁵. Developers and investors, including multilateral development banks (MDBs), private sector financial institutions and renewable energy companies, all add value through technical implementation, environmental and social assessments, and capacity building initiatives²⁶. Establishing a structured engagement process that involves all these groups from government institutions to local communities and civil society can strengthen transparency, reduce social risks, and support inclusive development in Tamil Nadu's OSW sector. The details on the types of stakeholders and their respective roles are provided in the following table:

²⁵ Dakshin Foundation. (2024). *Community-based approaches to coastal and marine resource governance in Tamil Nadu*. Dakshin Foundation Publications. https://www.dakshin.org/wp-content/uploads/2024/07/Entitlements_SFL_Eng
²⁶ ICLEI. (2025). *Inclusive renewable energy transition in coastal regions: Tamil Nadu case study*. ICLEI South Asia

Table 1.5 Stakeholder Roles and Responsibilities

S.N.	Category of Stakeholders	Stakeholders/ Key Institutions	Role
1	Regulators & Policymakers	MNRE, NIWE, MoEFCC, Ministry of Defence, Ministry of Ports Shipping & Waterways, Directorate General of Shipping, NCCR, National Centre for Sustainable Coastal Management (NCSCM)	Policy formulation, site identification, environmental and maritime clearance, inter-ministerial coordination
2	State Implementing Agencies	TEDA, TANTRANSCO, TANGEDCO, State Coastal Zone Management Authority (SCZMA)	Project facilitation, transmission and port planning, state-level approvals, monitoring of CRZ compliance
3	District & Local Authorities	District Collectors (Ramanathapuram, Thoothukudi, Kanyakumari), Panchayats, Harbour Management Committees	Local permits, public consultations, coordination with community institutions
4	Directly Impacted Communities	Mechanised & non-mechanised fishers, fish vendors, seaweed harvesters, self-help groups (SHGs) & women processors, boat repairers	Primary livelihood stakeholders; affected by spatial use, fishing access, and coastal activities
5	Indirectly Impacted Groups	Salt-pan workers, tourism operators, small traders, construction labour, agricultural households	Experience secondary impacts from land acquisition, labour migration, and market changes
6	Civil Society & Research Bodies	- M S Swaminathan Research Foundation (MSSRF), - Suganthi Devadason Marine Research Institute (SDMRI), Central Marine Fisheries Research Institute (CMFRI), Dakshin Foundation, International Council for Local Environmental Initiatives (ICLEI) South Asia, universities	Community outreach, participatory research, capacity building, ecological monitoring
7	Industry & Private Developers	OSW developers (international developers, Independent Power	Project development, investment, construction,

S.N.	Category of Stakeholders	Stakeholders/ Key Institutions	Role
		Producers), local contractors, supply chain enterprises	O&M and decommissioning execution
8	Other Agencies	Indian Coast Guard, Port Authorities (e.g., V.O. Chidambaranar Port, Tuticorin), DG Shipping, National Hydrographic Office	Maritime safety, navigation, security coordination, and survey support

1.3 Context of Fishing Community Stakeholders

Given the proximity of proposed OSW development areas to existing fishing grounds, Tamil Nadu's marine fisherfolk are among the most directly affected stakeholders. Their dependence on coastal and marine resources for livelihoods, navigation, and cultural practices makes their inclusion essential for equitable project design. Recognising demographics associated with fisherfolk communities and integrating fishers perspectives ensures that OSW development aligns with local needs while maintaining social acceptance and ecological balance. The same has been detailed in the following sections on socio-economic profile of fisherfolk and their livelihood patterns.

1.3.1 Socio-Economic Profile of Marine Fishing Communities in Tamil Nadu

Tamil Nadu has a long established and diverse marine fishing economy that is central to local livelihoods, food security, and cultural identity. Despite this significance, fishing households continue to face challenges such as limited access to social protection, seasonal income fluctuations, and vulnerability to climate related risks.

Population and settlement

As per the Tamil Nadu Fisheries Department, the marine fishing communities population in the state is approximately 1,047,837, residing across 608 fishing villages²⁷. This includes nearshore (0-6 nautical miles), midshore zone (6-12 nautical miles), offshore zone (beyond 12 nautical miles) and related activities along with traders, processors, boat builders, and other fishermen engaged at port and net repairing activities. Ramanathapuram district alone accounts for

²⁷ Department of Fisheries, Tamil Nadu. (2023). *Fisheries statistics 2022–23*
<https://www.fisheries.tn.gov.in/>

24% of this total, making it the district with the highest fishing communities concentration with 178 fishing villages. Among the 201,855 (~0.20 million households) coastal families of Tamil Nadu, 97% are traditionally engaged in fishing, indicating a strong reliance on marine livelihoods²⁸. The state's fishers operate across diverse ecosystems using a range of gear such as trawl nets, gillnets, longlines, and shore seines targeting species from pelagic to demersal categories depending on season and depth, illustrating the multi-gear, multi-species nature of Tamil Nadu's fisheries.

Gender

Tamil Nadu's marine fishing communities population is almost evenly split between men and women, with women making up 48.9% of the community²⁹. While men typically go to sea and operate fishing gear, women are central to the day-to-day functioning of the sector. They mend nets, sort, dry and process fish, and sell it in local markets, forming the backbone of post-harvest activities³⁰. In districts like Ramanathapuram, many women also collect seaweed and engage in near-shore waters, especially across the Gulf of Mannar, contributing directly to marine-based livelihoods³¹. Estimates suggest that women account for 60-70% of workers in fish drying and processing, and 70-80% in fish vending³². Despite their central role, women's work often remains informal and under-recognised in fisheries policy and decision-making, highlighting the need for gender-responsive engagement and benefit-creation in coastal development.

Religion and caste

Hinduism (57%) is the predominant religion among marine fishing families in Tamil Nadu, followed by Christianity (37%) and Islam (6%) reflecting the region's religious diversity³³. Scheduled Castes and Scheduled Tribes together account for just 5% of the marine fishing communities population. Although these groups are not major participants in fishing activity, they often reside in the same coastal settlements and may experience indirect effects from OSW development, particularly where social disadvantage, limited access to services, or existing vulnerabilities heighten their exposure to project impact.

28 Marine Fisheries Census. (2016). *Tamil Nadu marine fisheries census 2012*. Government of India.

https://www.indiaspend.com/uploads/2021/10/14/Marine_Fisheries_Census_INDIA_2016.pdf

29 Marine Fisheries Census. (2016). *Tamil Nadu marine fisheries census 2012*. Government of India.

https://www.indiaspend.com/uploads/2021/10/14/Marine_Fisheries_Census_INDIA_2016.pdf

30 Salagrama, V. (2006). *Trends in poverty and livelihoods in coastal fishing communities of India*. FAO

<https://www.fao.org/3/a0794e/a0794e.pdf>

31 The Hindu. (2024, February 5). *Where Tamil Nadu fisherwomen turn the tide of patriarchal panchayat system*. <https://www.thehindu.com/news/national/tamil-nadu/where-tamil-nadu-fisherwomen-turn-the-tide-of-patriarchal-panchayat-system/article69668297.ece>

32 United Nations Development Programme (UNDP). (2021). *Gender and fisheries in coastal India*.

<https://www.undp.org/india>

33 Central Marine Fisheries Research Institute (CMFRI). (2016). *Marine Fisheries Census 2016: Tamil Nadu*. Government of India, Ministry of Agriculture and Farmers Welfare, Department of Animal Husbandry, Dairying & Fisheries.

https://eprints.cmfri.org.in/13883/1/Practical%20Handbook%20on%20seed%20production%20of%20cobia%20and%20pompano_2019_Mandapam.pdf

Ramanathapuram district has the highest concentration of Muslim fisher families, constituting 61% of the total Muslim fishing households in the state³⁴. This demographic makeup highlights the need for engagement strategies that are both culturally respectful and inclusive.

Education

Almost 72% of marine fishing communities in Tamil Nadu have received some level of formal education. Of this, 44% have completed primary education, 37% have attained higher secondary, and 10% have pursued education beyond higher secondary level. 9% have completed graduate-level education. These varied education levels imply that engagement strategies must be tailored to different literacy and comprehension capacities. For example, highly technical tools such as MSP questionnaires, GIS maps, or policy templates may not be suitable for community members with limited schooling, whereas visual methods, participatory mapping, translated materials, and oral consultations may be more effective for ensuring inclusive participation. Customising engagement formats is therefore essential to ensure that all segments of the fishing communities irrespective of education level can meaningfully contribute to decision making.

Household income

Economic vulnerability is high among marine fisher families, with 91% of them falling below the poverty line (BPL)²³. Within Tamil Nadu, Kanyakumari district has the highest proportion of BPL fisher families (21%), followed by Ramanathapuram (20%), and Nagapattinam (10%).

1.3.2 Livelihood Patterns

Tamil Nadu has a diverse livelihood base shaped by agriculture, industry, services, and coastal resource-based occupations. While urban centres drive the growth of industry and services, rural and coastal communities continue to rely heavily on land and natural resources. Among these, fisheries remain an important source of livelihood particularly in coastal districts, supporting over one million fishermen (spread across rural and urban areas of the coast of Tamil Nadu), fisherwomen, and allied workers³⁵. As of 2022–23, Tamil Nadu's workforce was estimated at around 26 million people. Of this, approximately 8.7 million (33 to 37%) are engaged in the industrial sector, reflecting the state's strong manufacturing and infrastructure base. The services sector employs about 8.3 million (32 to 35%) workers, driven by the expansion of IT, retail, logistics, and public services. Agriculture continues to play a key role in rural

³⁴ Marine Fisheries Census. (2016). *Tamil Nadu marine fisheries census 2012*. Government of India. https://www.indiaspend.com/uploads/2021/10/14/Marine_Fisheries_Census_INDIA_2016.pdf

³⁵ Department of Fisheries, Tamil Nadu. (2023). *Fisheries statistics 2022–23*. <https://www.fisheries.tn.gov.in/>

livelihoods, employing around 6.5 million people (25–28%), despite a gradual shift towards non-farm employment.

Fisheries also contribute significantly to the state's economy. With a coastline of 1,076 km, Tamil Nadu recorded a marine fish production of 597,000 tonnes in 2022-23, generating export revenues of INR 6,957.67 crore.

Target species

Tamil Nadu's coastal and offshore waters support a rich diversity of marine species that support the fisheries economy of the state. Fishers harvest a mix of pelagic, demersal, shellfish and cephalopod species, reflecting the ecological productivity of the Bay of Bengal. Pelagic species such as sardines (*Sardinella* spp.), Indian mackerel (*Rastrelliger kanagurta*) and anchovies (*Stolephorus* spp.) are commonly caught by small scale fleets in nearshore waters³⁶. Mechanised trawlers operating offshore, target key demersal species including croakers (*Johnius* spp.), threadfin breams (*Nemipterus* spp.), and groupers (*Epinephelus* spp.)³⁷. The sector also depends heavily on high value shellfish such as shrimps (*Penaeus* spp.), crabs and lobsters, alongside commercially important cephalopods like squids and cuttlefish³⁸. This diversity illustrates both the economic importance and ecological sensitivity of Tamil Nadu's coastal zone, underscoring the need to carefully assess potential impacts from OSW development. Furthermore, establishing baseline data on economically important, endangered, and migratory marine species is essential because it allows the government to assess ecological sensitivity, identify high value or vulnerable habitats, and ensure that proposed OSW development zones are environmentally suitable before projects are sited.

Fishing seasons and timelines

Fishing activity along the Tamil Nadu coast follows seasonal cycles linked to climatic and ecological patterns. The post monsoon months (October to February), form the peak fishing season, especially for shrimp and pelagic species such as sardines and mackerel³⁹. To support stock regeneration, a 61-day ban on mechanised trawlers is imposed annually between April to June, coinciding with peak breeding periods⁴⁰. Traditional and small motorised craft with lower ecological impact often continue limited operations during this time. These seasonal dynamics are critical for

36 CMFRI. (2023). *Annual fish production estimates – Tamil Nadu*. Central Marine Fisheries Research Institute.

37 Central Marine Fisheries Research Institute. (2012). *Marine Fisheries Information Service no. 216: Marine fish landings, state wise, 2012*. Kochi: CMFRI. Retrieved from <https://eprints.cmfri.org.in/9458/1/MFIS-216.pdf>

38 Marine Products Export Development Authority. (n.d.). *Marine products exports – latest data*.

Government of India. Retrieved from https://mpeda.gov.in/?page_id=438&utm

39 Central Marine Fisheries Research Institute (CMFRI). (2012). *Marine Fisheries Census 2010 – Tamil Nadu*. Government of India. Retrieved from <https://eprints.cmfri.org.in/9121/>

40 Government of India. (2021). *Annual Fishing Ban Notification (East Coast – April 15 to June 14)*. Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying. Government of India <https://dof.gov.in/hi>

fisher livelihoods and should be considered in OSW planning to minimise disruptions during key fishing periods.

Fishing areas and dedicated zones

Fishing in Tamil Nadu is shaped by its diverse coastal environments, regulatory protections, and deep traditional knowledge. The coastline spans the Coromandel Coast, Palk Bay, and the Gulf of Mannar, each with unique ecological conditions that influence fishing practices and seasonal patterns⁴¹. Coastal development is regulated under the CRZ Notification, 2011⁴², which protects sensitive coastal areas and fisher livelihoods, making it particularly relevant for OSW planning.

Most fishing grounds are informally known, with fishers relying mainly on inherited navigation knowledge and only partial adoption of GPS. This lack of formal mapping makes close collaboration with fishing communities essential for MSP and OSW projects. Protected areas such as the Gulf of Mannar Biosphere Reserve maintain restricted fisheries access, with fishing zones located nearby⁴³. Given these realities, participatory mapping of fishing routes, seasonal grounds, and culturally significant marine spaces is critical to accurately capture local use patterns and avoid involuntary livelihood disruptions. This approach should be integrated into early project design as part of a broader commitment to participatory planning, ensuring that spatial decisions reflect community knowledge and reduce future conflict risks.

Tamil Nadu's waters are broadly classified into three distinct zones: (1) nearshore which are used by traditional and motorised craft; (2) mid-shore waters used by mixed fleets; and (3) offshore waters targeted by mechanised trawlers and gillnetters for tuna, squid and deeper-water species⁴⁴.

Methods of fishing

Tamil Nadu's fisheries support one of India's most diverse coastal populations. Across 13 coastal districts and more than 1,000 km of shoreline, fishers use methods ranging from mechanised trawlers to simple hand-thrown nets, each shaped by local ecology, traditions, and livelihood needs.

- **Mechanised fishing methods:** Mechanised fishing refers to the use of vessels equipped with inboard engines and powered gears. Mechanised vessels make up around 10% of Tamil Nadu's fishing fleet and operate mainly in deeper waters and

41 Central Marine Fisheries Research Institute (CMFRI). (2012). *Marine Fisheries Census 2010 – Tamil Nadu*. Government of India. Retrieved from <https://eprints.cmfri.org.in/9121/>

42 Ministry of Environment, Forest and Climate Change. (2011, January 6). Coastal Regulation Zone Notification, 2011 (S.O. 19(E)) <https://cat.org.in/wp-content/uploads/2016/07/CRZ-Notification-2011-06.01.2011.pdf>

43 CMFRI (2010). *Marine Fisheries Census 2010 – Tamil Nadu*

44 Central Marine Fisheries Research Institute (CMFRI). (2016). *Marine Fisheries Census 2016: Tamil Nadu*. Kochi: CMFRI. <https://eprints.cmfri.org.in/>

the EEZ (CMFRI, 2010). Fishing methods supported by this type of vessel are listed below:

- **Trawling:** The most common mechanised method. Large nets are towed through the water (to catch pelagic species), or along the seabed (to catch demersal species). Images of the same can be accessed in **Figure 4.1 of Appendix D**. While highly efficient for commercial harvests, trawling can disturb seabed habitats and result in significant bycatch (CMFRI, 2020).
- **Gill netting:** Gill nets are vertical mesh nets that catch fish as they attempt to swim through them. Images of the same can be accessed in **Figure 4.2 of Appendix D**. They are typically deployed from motorised boats and are considered relatively selective, as mesh sizes can be adjusted to reduce juvenile catch and bycatch⁴⁵.
- **Longlining:** Long fishing lines with numerous baited hooks are deployed, to target species like tuna, seer fish, or swordfish. Images of the same can be accessed in **Figure 4.3 of Appendix D**. Longlining operations vary from small-scale manual techniques to mechanised systems used by larger boats (DAHDF, 2021).
- **Motorised Traditional Fishing Methods:** Motorised traditional crafts are indigenous wooden boats fitted with outboard motors operating within 20 to 50 km of the coast. Such boats account for approximately 52% of Tamil Nadu's fishing fleet and are predominantly used in nearshore fishing⁴⁶.
 - **Gill nets:** These are the most frequently used gear by motorised traditional boats used in Tamil Nadu, targeting small pelagic species such as sardines (*Sardinella longiceps*), anchovies (*Stolephorus indicus*), and Indian mackerel (*Rastrelliger kanagurta*).
 - **Hook and line:** A traditional and selective method targeting reef and pelagic species. Images of the same can be accessed in **Figure 4.4 of Appendix D**.
 - **Shore seines (Karaivalai):** Nets are deployed from motorised boats and hauled ashore collectively by large teams, typically during calm sea conditions⁵⁰. Images of the same can be accessed in **Figure 4.5 of Appendix D**.

45 ICSF (2022). *Marine Small-Scale Fisheries of Tamil Nadu*

46 Central Marine Fisheries Research Institute (CMFRI). (2010). *Marine Fisheries Census 2010 – Tamil Nadu Part I: District-wise Demographic Details of Marine Fisherfolk*. Kochi: CMFRI, Indian Council of Agricultural Research. <https://www.cmfri.org.in/>

- **Non-motorised traditional fishing methods:** Non-motorised crafts include manually operated crafts such as catamarans which make up the remaining 38% of Tamil Nadu's total fleet and include artisanal fishing (e.g. Masula boats for beach seines and hook-and-line fishing operating within 3-5 km of the coast.
 - **Catamaran fishing (Kattumaram):** Uses traditional wooden rafts constructed by tying logs together. Images of the same can be accessed in **Figure 4.6** of **Appendix D**. These low-cost, manually operated crafts are deeply rooted in Tamil coastal heritage and are widely used by artisanal fishers for nearshore fishing (within 8 to 10 km in calm sea conditions), particularly in districts such as Ramanathapuram and Nagapattinam.
 - **Shore seine (Karaivalai):** Involves setting nets in shallow waters and pulling them to shore by hand. Practiced during calm seas, it is labour-intensive, community-based, and considered low-impact⁴⁷.
 - **Handlining and cast netting:** Handlining uses a simple line and hook, while cast netting involves throwing circular nets by hand. Images of the same can be accessed in **Figure 4.7** of **Appendix D**. These traditional, low-impact methods are usually practiced close to shore, often by individual fishers or in combination with other seasonal livelihoods.

Refer to **Appendix D** for images of the different types of fishing gears deployed in Tamil Nadu.

Fishing fleet

Tamil Nadu has one of India's largest and most diverse fishing fleets. According to the Marine Fisheries Census 2016, there are 43,099 fishing crafts, including 5,705 mechanised boats, 31,279 motorised crafts and 6,115 non-motorised traditional boats⁴⁸. Most of these vessels are owned by fishers themselves, reflecting strong community-based livelihoods and asset ownership. More recent estimates from the Department of Fisheries indicate around 5,440 mechanised boats and 44,487 traditional crafts in 2022–23, highlighting the continued high-density of operations along Tamil Nadu's 1,076-km coastline⁴⁹.

47 Central Marine Fisheries Research Institute & Department of Animal Husbandry, Dairying & Fisheries, Government of India. (2012). [PDF]. Retrieved from https://eprints.cmfri.org.in/8998/1/India_report_full.pdf?

48 Central Marine Fisheries Research Institute (CMFRI). (2016). Marine Fisheries Census 2016: Tamil Nadu. Government of India, Ministry of Agriculture and Farmers Welfare, Department of Animal Husbandry, Dairying & Fisheries. https://eprints.cmfri.org.in/13883/1/Practical%20Handbook%20on%20seed%20production%20of%20cobia%20and%20pompano_2019_Mandapam.pdf

49 Department of Fisheries and Fishermen Welfare, Government of Tamil Nadu. (n.d.). *Fisheries statistics and fleet data*. <https://www.fisheries.tn.gov.in/>

Fishing regulatory aspects

Marine fishing in Tamil Nadu is governed by a combination of local, state, and national regulations that determine who is permitted to fish, as well as the locations, timing and methods allowed. A key component of this regulatory framework is the CRZ Notification 2011, which restricts development within 500 metres of the High-Tide Line (the line on the land up to which the highest water level reaches during the spring tide) and across intertidal areas to safeguard coastal ecosystems and community livelihoods.

Table 1.6 Tamil Nadu Fishing Regulatory Aspects

S.N.	Themes	Applicable Regulations	Description
1	Licensing & Access Rights	- Tamil Nadu Panchayats Act, 1950 - Tamil Nadu Panchayats (Lease and Licensing of Fishery Rights) Rules, 1999	- Inland fishing rights are leased by Village Panchayats. - Marine vessels must be registered and licensed under state law
2	Marine Fishing License	- Tamil Nadu Marine Fishing Regulation Act (TNMFRA), 1983 - Tamil Nadu Marine Fishing Regulation Rules, 1983	Vessels must be registered and comply with the Marine Fishing Regulation framework
3	Geographical Zoning (CRZ)	- Coastal Regulation Zone Notification 2011 (under Environment (Protection) Act, 1986) - CRZ Rules (2019):	- Coastal areas classified under CRZ-I to CRZ-IV - Protects sensitive habitats (coral reefs, mangroves) - Safeguards traditional coastal livelihoods
4	Fishing Regions	- Coastal Zone Management Plan (CZMP) (2022) - Informal mapping; referenced in MSP and Blue Economy policy documents, 2022 developed by Ministry of Earth Science (MoES).	- Traditional fishing grounds, not formally mapped - CZMP mapped areas (2022); revised 2025 after objections - NCCR MSP work started 2024, based on pilots

S.N.	Themes	Applicable Regulations	Description
5	Fishing Seasons	TN Marine Fishing Regulation Act (TNMFRA) 1983 (Section 5)	A 61-day ban from April 15 to June 14 protects fish breeding; violations are penalised under TNMFRA
6	Fishing Gear	- TN Marine Fishing Regulation Rules, 1983 - CMFRI technical gear guidelines	Destructive gear is less preferred; mesh size rules reduce bycatch. Traditional low impact gear remains largely unregulated
7	Mobility Patterns	- TN Marine Fishing Regulation Act (TNMFRA), 1983 - Informed by MSP principles	- Mechanised boats with inboard engines operate deeper in the sea; traditional crafts use nearshore zones are protected - Regulations under TNMFRA restrict mechanised vessels from encroaching nearshore zones used by small scale fishers
8	Enforcement & Fines	- TN Marine Fishing Regulation Act, 1983 (Section 18) - TN Marine Fishing Regulation Rules, 1983	TNMFRA fines up to INR 10,000; weak enforcement

1.4 Assessment of Fishing Community Readiness

Given the high population density along Tamil Nadu's coastline and the socio-economic diversity of its marine fishing communities, spanning varied livelihood, species dependence, fishing methods (including differing regulations), an inclusive and targeted engagement approach is essential. The first step toward this is assessing community readiness to engage with OSW development. To support this understanding, an in-depth interview was conducted with the Head of the Fish for All Centre at MSSRF. The discussion highlighted several factors that could be areas of concern within the fishing community such as:

- Climate change impacts (on fish stocks)
- Increasing spatial squeeze from conservation and geopolitical priorities.
- Livelihood insecurities and mismatched expectations from previous infrastructure projects

These reflections underscore the importance of developing and executing early, transparent, and culturally sensitive engagement strategies tailored to local communities. **Table 1.7** below summarises the potential areas of concern for fishing communities in the context of OSW development.

Table 1.7 Potential areas of concerns of fishing communities in Tamil Nadu

S.N.	Potential Areas of Concern	Description (As per consultation)	Evidence / Example
1	Climate change impacts (on fish stocks)	Tamil Nadu's coastal ecosystems have experienced ecological stress from climate change, resulting in reduced fish availability and overall resource productivity. This depletion has led small-scale fishers to travel farther and invest more effort to sustain catch volumes, increasing costs and safety risks. In this context, the introduction of large-scale infrastructure projects, such as OSW development, could further affect resource availability and increase the effort required for fishing, adding to existing livelihood challenges. These concerns make it imperative to adopt legislative frameworks that mandate species baselining, ensuring development aligns with ecological realities, helping protect biodiversity, restore fish	● Rising sea temperatures and ocean acidification are intensifying stress on India's coral reefs. In the Gulf of Mannar, repeated bleaching linked to elevated temperatures has caused significant coral loss, while acidification reduces coral calcification and recovery. Together, these pressures weaken reef and seagrass ecosystems that support marine biodiversity⁵⁰. ● Tamil Nadu experienced a 21.8% reduction in fish landings in 2023 compared with 2022⁵¹.

50 International Union for Conservation of Nature. (2012). Coral reefs in India: status, threats and conservation measures. Retrieved from <https://moef.gov.in/uploads/2019/10/Coral-Reefs-in-India-Status-Threats-Conservation-Measures.pdf>
 51 CMFRI (2023): Marine Fish Landings in India 2023. Retrieved from https://eprints.cmfri.org.in/18344/1/Marine%20Fish%20Landings%20in%20India_2023.pdf

S.N.	Potential Areas of Concern	Description (As per consultation)	Evidence / Example
		stocks, and build resilience within coastal communities.	
2	Increasing spatial squeeze from conservation and geopolitical priorities	Fishing communities in Tamil Nadu experience spatial limitations due to proximity to the Indo–Sri Lankan maritime boundary and conservation priorities such as the Gulf of Mannar Biosphere Reserve, coastal zone regulations, and seasonal fishing bans. While these initiatives aim to protect marine resources, they also reduce the areas available for fishing. In this context, there are concerns that additional infrastructure projects could further restrict access to traditional fishing grounds, adding to existing challenges in sustaining livelihoods.	● Proximity to the Indo-Sri Lankan maritime border, where strict enforcement by the Sri Lankan Navy under UNCLOS, has led to frequent arrests, confiscation of boats and legal insecurity for Indian fishers⁵² who cross borders due to fish depletion in Indian waters. ● The Gulf of Mannar Marine National Park, notified in 1986 under the Wildlife (Protection) Act, forms the core of the broader Gulf of Mannar Biosphere Reserve designated in 1989 by India and UNESCO. It includes 21 uninhabited islands and surrounding shallow waters along the Ramanathapuram and Thoothukudi coast, covering about 560km of core area within a 10,500 km biosphere reserve.⁵³ There are several fishing restrictions in this area. ● The Ministry of Fisheries, Government of India, imposes a uniform 61-day annual ban on fishing in the EEZ beyond territorial waters on both coasts, from 15 April to 14 June along the East Coast and from 1 June to 31 July

52 The Tamil Guardian. (2024). India and Sri Lanka discuss illegal fishing. Retrieved from <https://www.tamilguardian.com/content/india-and-sri-lanka-discuss-illegal-fishing>

53 Ramanathapuram District Administration. (2025). Forest, Environment & Climate Change. Retrieved from <https://ramanathapuram.nic.in/departments/forest-environment-climate-change/>

S.N.	Potential Areas of Concern	Description (As per consultation)	Evidence / Example
			along the West Coast, to allow for fish breeding and resource regeneration ⁵⁴ .
3	Livelihood insecurities and mismatched expectations from previous infrastructure projects	Fisherfolk communities in Tamil Nadu have faced livelihood uncertainties during previous infrastructure projects, where employment assurances, adequate compensation, or meaningful consultation were not always realised as expected. These experiences have created a perception that similar patterns could occur with new developments, reinforcing the need for clear communication and inclusive planning to build trust and address expectations effectively.	● Kattupalli Port Expansion (near Chennai): Local fisher communities around Kattupalli and Ennore have opposed the proposed expansion of the Kattupalli Port, citing threats to livelihoods and coastal ecology⁵⁵. Community representatives note that earlier assurances of employment and social facilities made during the initial port development were not fulfilled.⁵⁶ ● Ennore-Manali Expressway: Fishers at Kasimedu Fishing Harbour have protested against being evicted on short notice without consultation or adequate compensation⁵⁷.

54 Press Information Bureau, Government of India, Ministry of Fisheries, Animal Husbandry & Dairying. (2025). Assistant to Fishermen. Retrieved from <https://www.pib.gov.in/PressReleaseDetail.aspx?PRID=2114930>

55 Down to Earth. (2021). Why are Ennore residents protesting against Adani's Kattupalli Port expansion project? Retrieved from <https://www.downtoearth.org.in/environment/why-are-ennore-residents-protesting-against-adani-s-kattupalli-port-expansion-project--75894>

56 ICSF. (2022). Tamil Nadu: Pulicat fishermen stage protest. Retrieved from <https://icsf.net/newss/tamil-nadu-pulicat-fishermen-stage-protest/>

57 Mallick, D. (2019, March 5). Fisher folk at Kasimedu harbour protest sudden eviction, demand compensation. *The New Indian Express* <https://www.newindianexpress.com/cities/chennai/2019/Mar/05/fisher-folk-at-kasimedu-harbour-protest-sudden-eviction-demand-compensation-1947235.html>

2 Case Studies of Community Engagement Best Practices



2 Case Studies of Community Engagement Best Practices

Effective community engagement is a cornerstone of successful OSW projects. When commenced at the earliest possible stage and then embedded throughout the project lifecycle as an ongoing, strategic process, it allows two-way proactive participation and communication. It also builds trust, addresses concerns early and strengthens project resilience.

2.1 Examining Global Case Studies of Successful Community Engagement

The following global examples illustrate how proactive community engagement has enabled smooth implementation and long-term community support.

2.1.1 East Anglia One, UK

Developer: ScottishPower Renewables and Bilbao Offshore Holding Ltd

Year of construction: 2017

Operational Since: 2019

Location: 43kms off the Suffolk Coast in the Southern North Sea

ScottishPower Renewables developed the 714 MW East Anglia ONE OSW farm off the Suffolk coast, which has been fully operational since 2020. The project stands out for its inclusive approach to engaging a diverse set of stakeholders; from local fishers and tourism-dependent towns to migrant communities and marine traffic users⁵⁸.

Compliance with UK Planning Act requirements required early engagement during the permitting and licensing phase. The project team used innovative tools, including animated videos, VR simulations, and interactive maps to visualise potential impacts of WTGs and cable routes. These made technical details easier to understand, and enabled engagement of over 2,000 local residents, boosting public understanding by 50%. EIA summaries were distributed in English and Polish (local migrant communities), and roadshows were held in over 20 local coastal towns with interpreters and digital aids. Tailored dialogues with fishing groups allowed consensus-building before compensation discussions, reducing

⁵⁸ Scottish Power Renewables . (2024). *East Anglia ONE*. Retrieved from East Anglia: https://www.scottishpowerrenewables.com/pages/east_anglia_one.aspx

friction and fostering trust^{59, 60}.

Key Learnings:

East Anglia ONE illustrates that proactive, transparent, and early stakeholder engagement, especially when mandated through public consultation requirements in permitting regulations, can transform potential conflicts into collaborative outcomes.

By integrating outreach into everyday interactions, leveraging visual tools, and ensuring language accessibility, the project fostered community trust and minimised planning obstacles, demonstrating that early, inclusive engagement is not just best practice but a strategic advantage for OSW development.

2.1.2 Hornsea Project One, UK

Developer: Ørsted

Year of construction: 2018

Operational Since: 2019

Location: 120 km off the Yorkshire coast in the North Sea

Hornsea Project One, developed by Ørsted, is located in the North Sea off the Yorkshire coast and was the world's largest operational OSW farm at commissioning, with a capacity of 1.2 GW. Identified in 2010, construction began in 2018, and operations commenced in December 2019. The project benefited from a strong regulatory framework under the UK Planning Act 2008 and proactive engagement strategies that helped secure development consent in under 12 months⁶¹.

Ørsted initiated stakeholder engagement well before finalising project boundaries. Consultations between 2011 and 2015 included local exhibitions, fisher drop-in sessions, and bilingual materials to reach migrant communities. Visual tools such as maps and non-technical EIA summaries made complex information accessible. Importantly, the developer adjusted turbine layout and cable routes based on feedback from fishers and coastal councils, reducing conflict and fostering collaboration^{62, 63}.

59 ScottishPower Renewables. (2018). *Statement of Community Consultation (SoCC) for East Anglia ONE North Offshore Wind Farm*. Retrieved from

https://www.scottishpowerrenewables.com/userfiles/file/EA1N_SoCC_Document.pdf

60 ScottishPower Renewables. (2019). *East Anglia One - Consultation Report*. Retrieved from

<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010077/EN010077-000984-5.1%20EA1N%20Consultation%20Report.pdf>

61 Ørsted. (2017). Hornsea Project Three PEIR Volume 4 – Annex 11 HOW01 and HOW02: Consultation. Retrieved from <https://cdn.orsted.com/-/media/www/docs/corp/uk/hornsea-project-three/how03peirvolume-4-annex-11how01-and-how02-consultation.pdf?hash=4ABB287CCEE91BD6A4BB5B9D9650DE96&rev=22932fa95ad1464daf0872efb9bf16e&>

62 Ørsted. (2019). Hornsea Project Four, Preliminary Environmental Information Report. Retrieved from <https://cdn.orsted.com/-/media/www/docs/corp/uk/hornsea-project-four/01-formal-consultation/pier/volume-1/peir-volume-1-chapter-2-planning-and-policy-context.pdf?hash=105772593457AD82F9AF6EE25AF87C6B&rev=0cb9b83589a74ae7a27bff0b83ca5fbc&>

63 Ørsted. (2019). Hornsea Project Four: Formal Consultation – Documents Library. Retrieved from <https://hornseaprojects.co.uk/hornsea-project-four/documents-library/formal-consultation>

Key Learnings:

- Government reforms, such as zone-based leasing, mandatory environmental constraints mapping, early stakeholder input, developer-led feasibility studies, and formal pre-application consultations under the Planning Act 2008, enabled Hornsea One to engage transparently and flexibly before fixing project boundaries, accelerating permitting and securing community support by avoiding early conflicts.
- Clear, accessible communication and early stakeholder input helped avoid conflict and deliver local benefits, jobs, and port upgrades, proving collaboration is critical to OSW success.

2.1.3 Morgan and Mona, UK^{64,65}

Developer: JERA Nex bp and Energie Baden-Württemberg AG (EnBW)

Year of construction: expected to commence in 2026⁶⁶

Operational Since: N/A

Location: 22-37kms off the coast in East Irish Sea

Morgan and Mona are two OSW farm projects located in the Irish Sea, each with a total installed capacity of 1.5GW. Consents for these projects were granted by the UK Government in 2025, after four years of development work.

Early engagement with local, regional, and international fisheries stakeholders resulted in the identification of a number of key fishing fleets that had the potential to be affected by the proposed projects. Further detailed engagement resulted in clear evidence being provided by key fisheries, in particular Scottish west coast scallop vessels based out of a key port, with respect to the spatial and temporal nature of fisheries within the Array areas.

In order to mitigate these potential impacts, the EIA team worked closely with project engineers to develop a “Scallop Mitigation Zone” (SMZ) within each of the Array areas, within which no wind turbines or offshore substations would be located, thus maintaining access to this key fishing area for local vessels.

Key Learnings:

- Early, open engagement with affected fishing communities is key.
- If clear evidence of fishing activity collated via consultation is provided in a timely manner to project engineers, project design can be shaped to enable co-existence between OSW and fisheries.

64 Mona Offshore Wind Farm

65 Morgan and Mona Offshore Wind Farms

66 Power plant profile: Morgan & Mona Offshore Wind Project, UK

2.2 Critical Lessons from Unsuccessful Community Engagement Initiatives

In contrast to the above, the case studies below demonstrate how limited or poorly structured engagement have, in some cases, led to disputes, delays, and even cancellations of OSW and other infrastructure development projects.

2.2.1 Navitus Bay Wind Farm, England

Developer: Eneco and EDF Energy

Status: Refused permission (2015)

Location: Off the coast of Dorset, Hampshire, and the Isle of Wight

The Navitus Bay Wind Farm, proposed off England's southern coast near Dorset and the Isle of Wight, was designed to support the UK's renewable energy goals. With an investment of £3.5 billion, the project aimed to power 700,000 homes and contribute £1.6 billion to the economy over 25 years. Despite its national significance, development consent was denied in 2015 following sustained local opposition⁶⁷.

Following its proposal in 2010, developers undertook a five-year engagement programme, including EIA and public exhibitions. However, consultations were perceived as procedural rather than participatory⁶⁸. Local councils and heritage bodies felt their concerns, particularly around visual impact, cultural heritage, and tourism, were not adequately addressed⁶⁹. The reduction in WTG numbers did little to ease fears about seascape intrusion or potential loss of UNESCO World Heritage status for the Jurassic Coast. Economic benefits at the national level were viewed as insufficient compensation for anticipated local losses.

Key Learnings:

Navitus Bay highlights that trust requires more than technical mitigation, early, context-sensitive engagement, transparent processes, and clear communication of local benefits, starting even before formal consultations, are essential.

- Projects in sensitive landscapes must integrate community concerns into decision-making and adapt designs to local heritage, landscape, and tourism priorities to secure long-term support and avoid costly delays or cancellations.

67 BBC. (2015, September 11). Navitus Bay wind farm refused permission by government. Retrieved June 2025, from BBC News: <https://www.bbc.com/news/uk-england-34220834>

68 UK Parliament. (2015, June 15). Navitus Bay Wind Farm. Retrieved from Hansard: <https://hansard.parliament.uk/Commons/2015-06-15/debates/1506165000001/NavitusBayWindFarm#main-content>

69 Macalister, T. (2015, September 11). Tories reject Navitus Bay Offshore Windfarm. Retrieved June 2025, from The Guardian: <https://www.theguardian.com/environment/2015/sep/11/tories-reject-navitus-bay-offshore-windfarm>

2.2.2 Yeonggwang-Gun Near Shore Wind Project, South Korea

Developer: Daehan Green Power; Korea East-West Power; Unison

Year of construction: 2018

Operational Since: 2019

Location: Yeonggwang-gun region, South Korea

South Korea's push for OSW in Yeonggwang-gun, part of its national energy transition strategy, faced significant resistance due to exclusionary siting practices. By 2022, seven projects totalling 1.2 GW were planned in the region, chosen for favourable marine conditions and grid access. However, early engagement with fishing communities, particularly gillnet fishers, was limited, triggering strong opposition and exposing gaps between national goals and local realities⁷⁰.

Consultations were irregular and lacked transparency. Traditional cooperative leaders were not fully engaged, and some OSW developers adopted poorly planned and managed consent approaches that included unclear financial compensation terms. Fishing village chiefs noted limited participation in key councils, which reduced confidence in the process and contributed to perceptions of OSW as primarily extractive rather than beneficial. Meetings were brief, minimally planned, and sparsely attended, offering limited opportunities for discussion, and fishers' contributions seldom influenced final decisions.

Resistance stemmed from four factors: (1) WTGs sited in core fishing grounds; (2) marginalisation of elected leaders; (3) poorly planned and managed approval practices; and (4) unclear government agreements. These failures delayed projects and undermined social legitimacy.

Key Learnings:

- Successful OSW deployment demands more than technical planning; protecting livelihoods, ensuring representation, and enforcing transparent, binding agreements are critical. Government-led mediation and standardised processes can reduce opposition, accelerate timelines, and build durable community support.
- Protect core fishing zones and prioritise areas where coexistence is viable; ensure fisher representation in all decision-making bodies; and mandate transparent consent with clear documentation and grievance mechanisms.

⁷⁰ Park, S., Yun, S.-J., & Cho, K. (2024, January 05). Energy justice: Lessons from offshore wind farm siting conflicts in South Korea. *Energy Policy*, 185. doi:10.1016/j.enpol.2023.113972

2.2.3 Vizhinjam International Seaport Project, Kerala, India

Developer: Govt of India, Govt of Kerala, and Adani Vizhinjam Port Pvt Ltd

Year of construction: 2015

Operational Since: 2025

Location: Vizhinjam, Thiruvananthapuram, Kerala

The Vizhinjam International Seaport Project (VISIP), near Thiruvananthapuram in Kerala, India, is envisioned as a deep-water trans-shipment hub to reduce India's reliance on foreign ports. Developed under a public-private partnership led by Adani Ports, the project promised strategic and economic benefits. However, it faced prolonged resistance from local fishing communities concerned about environmental degradation, displacement, and livelihood loss⁷¹.

Despite proposed financial compensation packages and formal consultations, engagement was perceived as top-down and insufficiently inclusive. Communities feared accelerated coastal erosion, biodiversity loss, and worsening storm surges, risks that threatened homes and traditional livelihoods. Reports of shoreline changes and delayed mitigation measures further deepened mistrust. Grievance mechanisms also lacked transparency and promised safeguards such as breakwaters and housing were delayed or incomplete.

Key Learnings:

- The VISIP underscores that large coastal projects need proactive, participatory engagement and climate-sensitive planning, integrating local voices into decisions, communicating tangible benefits, addressing socio-environmental risks early, and broadening outreach to all fishing communities to build trust.
- Continuous dialogue and stronger safeguards, along with integrating climate risks like erosion and sea-level rise into planning, can build trust, reduce conflict, and ensure long-term project resilience. A clear commitment to monitoring potential community impacts could further address concerns and build confidence.

⁷¹ The Hindu, Why are the fisherfolk demanding to stop the construction of Vizhinjam port project, December 05, 2022

3 Global Community Engagement Best Practices



3 Global Community Engagement Best Practices

This section highlights global best practices for community engagement, showcasing what different offshore wind markets do across various stages of development to ensure inclusivity and transparency.

Drawing from international best practices across both mature and emerging OSW markets, it is evident that successful community engagement requires shared responsibility between governments and developers, with distinct roles across each phase of project development. Governments play a fundamental role in setting regulatory frameworks, ensuring inclusivity in planning and safeguarding community interests through equitable permitting and legislation and strategic baseline measurement and setting. Developers, in turn, have a responsibility to implement these regulations through sustained, transparent, and locally grounded engagement. While in some jurisdictions, government leadership is crucial in early phases of site identification and surveys, developer-led obligations become central from the permitting and licensing phase.

Table 3.1 outlines key best practices drawn from global OSW developers, offering guidance for both, government, and developers across each phase of OSW development.

Table 3.1 Key Best Practices for Community Engagement

Phase	Government	Developer
Pre-Approval & Planning	- Conduct comprehensive stakeholder mapping and species baseline studies for MSP - Facilitate inclusive site identification through MSP and transparent site selection	
Developer Selection	Embed community engagement & benefit-creation requirements (such as community benefit funds, benefits in kind,	Embed benefit creation early to build trust and reduce risk

Phase	Government	Developer
	sponsorships, or preferential electricity rates) within developer selection criteria	
Permitting & Licensing	● Include public participation in permitting laws making consultations with fisheries stakeholders as statutory rather than optional ● Develop clear and enforceable compensation frameworks	● Conduct comprehensive stakeholder mapping for OSW project ● Appoint CLO's and FLO's early ● Conduct species baseline studies using local knowledge and community participation ● Design inclusive and innovative awareness generation campaigns
Construction, O&M	● Mandate ongoing CLO/FLO involvement during scoping, construction & O&M stage from scoping phase	● Ensure ongoing CLO and FLO engagement throughout construction and O&M and phases ● Establish centralised & digital hubs for communication and grievance procedures ● Deploy flexible, community-driven benefit funds to strengthen local engagement and deliver lasting social and economic impact with a designated percentage ringfenced specifically for fisheries
Decommissioning	● Mandate community consultations prior to decommissioning ● Establish clear legal liabilities and timelines for site restoration	● Create and implement decommissioning engagement strategy ● Ensure ongoing CLO and FLO engagement ● Establish centralised &

Phase	Government	Developer
		digital hubs for communication and grievance procedures

3.1 Pre-Approval and Planning

3.1.1 Government Responsibilities

In the pre-approval and planning phase, the government plays a critical role in laying the groundwork for inclusive OSW development. This involves two foundational steps: (1) conducting stakeholder mapping and disaggregation to understand the diversity of coastal communities and livelihoods; and (2) ensuring inclusive site identification through MSP and transparent site selection. These steps are essential to avoid spatial conflicts, protect biodiversity and provide a clear framework for developers to build socially responsive and ecologically sound projects.

Conduct comprehensive stakeholder mapping and species baseline studies MSP

Comprehensive stakeholder mapping is the foundation of inclusive OSW development and must be led by the government to ensure neutrality and strategic alignment. In Tamil Nadu, this step is especially vital due to the diversity in coastal demographics, fishing gear types, caste and gender roles, migratory patterns, and species dependency. Without disaggregated data, engagement risks excluding vulnerable groups from MSP and misaligning compensation or livelihood programmes. Equally critical is the government's responsibility to conduct species baseline studies and integrate these findings into MSP processes, enabling scientifically informed and uncontested site selection. This approach not only minimises ecological disruption but also strengthens trust among coastal communities by demonstrating a commitment to safeguarding biodiversity and sustaining fish stocks alongside renewable energy goals.

Facilitate inclusive site identification through MSP and transparent site selection add sources

If undertaken correctly, MSP can help align OSW zones to avoid or otherwise minimise spatial overlap with biodiversity hotspots, fishing grounds, and conservation areas. MSP will be key in Tamil Nadu, where coastal ecosystems and communities vary widely. At the site identification stage, strategic EIA, and community mapping, led by government, are essential to inform zoning decisions and build trust. Comprehensive engagement with fishers, coastal communities and

NGOs is key to implementing effective MSP. Additionally, it is also government’s responsibility to ensure that the site selection process for OSW development is transparent, with clear criteria and documentation accessible to all stakeholders. Once sites are awarded, developers must conduct detailed, site-specific EIAs and community engagement to address potential impacts. If there is any overlap of OSW development sites with key fishing grounds and/or sensitive zones it becomes the developer’s responsibility to avoid-minimise and mitigate these potential impacts. Developers should first, avoid impacts wherever possible by selecting alternative locations or adjusting project boundaries; if complete avoidance is not feasible, minimise impacts by reducing their scale, intensity, or duration through design changes or operational measures; and finally, mitigate any remaining impacts through measures such as habitat restoration, community benefit programmes, or financial compensation;

Table 3.2 details examples of government-led site selection processes that include/do not include stakeholder engagement (UK and South Korea respectively).

Table 3.2 Comparison of Government-Led Site Selection Processes In UK and South Korea

United Kingdom: Site Selection Stakeholder Engagement

The UK OSW projects follow a regulated, transparent process that includes formal community engagement before site consent:

- **The Crown Estate leasing model:** Seabed leasing is centrally managed, and rounds (e.g. Round 3, Round 4, Round 5) followed zoning frameworks that assessed environmental constraints and user conflict including fisheries before allocating development areas. For the Round 5 leasing round (Celtic Sea – 2023/25), The Crown Estate (TCE) further enhanced transparency by publishing a detailed site selection methodology and open GIS datasets showing how fisheries data and stakeholder feedback shaped Project Development Areas (PDAs). This approach enabled fishers and other users

South Korea: Non-Stakeholder Engagement Site Selection

South Korea has historically followed a developer-driven system, with limited early community participation:

- **Developer-led site choice:** Projects were initiated directly by private developers under the Power Development Promotion Act, with elements such as marine spatial use largely uncoordinated with local stakeholders. Critics cite unpredictability and delays as central challenges in this model⁷³
- **No mandatory pre-bid public consultations:** Unlike the UK, there was initially no statutory requirement to hold stakeholder engagement or spatial planning before site allocation or permitting

73 Solutions for Our Climate (SFOC) . (2023). 12 Key Issues That Will Define Offshore Wind’s Success in Korea. Retrieved from <https://content.forourclimate.org/files/research/g15iFUe.pdf>

United Kingdom: Site Selection Stakeholder Engagement

to trace how their data informed site screening and trade-off decisions and helped build trust. It made fishers feel that they were listened to and they have confidence that, although some impacts are unavoidable, they will be minimised through this process.⁷²

This structured setup ensures that communities engage at early stages during site identification and planning, allowing developers to refine layouts and mitigation based on community input

South Korea: Non-Stakeholder Engagement Site Selection

- **Regulatory reform via OSW Promotion Act (2025):** Newly enacted legislation transforms the system, mandating government-led designation of Power Generation Zones and enabling one-stop expedited permits for projects in these areas. It also creates a Fisheries Development Fund, implicitly requiring consideration of impacted communities in zoning decisions⁷⁴

This shift is aimed at improving transparency and predictability in site selection though formal requirements for community engagement during site identification remain under development

Table 3.3 below presents a checklist for government stakeholders to facilitate inclusive site identification through MSP and transparent site selection.

Table 3.3 Checklist for Government Stakeholders to Facilitate Inclusive Site Identification Through MSP and Transparent Site Selection

1 Initiate MSP	Map biodiversity hotspots, fishing grounds, conservation zones, and existing marine uses
2 Overlay Stakeholder Mapping with MSP	Align mapped stakeholder groups (fishing type, caste, gender, migratory patterns) with ecological zones. Identify high-conflict and high-dependency areas
3 Conduct Participatory Mapping Workshops	Engage fishers, SHGs, panchayats, and NGOs in visualising marine use and priority zones. Use Participatory Rural Appraisal (PRA) tools, sketch maps, and local language facilitation
4 Define Transparent Site Selection Criteria	Prioritise low-conflict zones with minimal overlap with critical fishing or biodiversity areas. Include social and ecological sensitivity scoring
5 Host Public	Share MSP maps and site options in accessible formats (e.g.,

72 (Estate, 2023): Retrieved from: <https://www.thecrownestate.co.uk/our-business/marine/round-5-updates-archive>

74 Kim & Chang. (2025). Korea's Offshore Wind Promotion Act Finally Passes. Retrieved from https://www.kimchang.com/en/insights/detail.kc?idx=31518&sch_section=4&

	Consultations on Proposed Zones	Tamil, visual aids). Document feedback and integrate into final site decisions
6	Publish Finalised Zones with Justification	Clearly communicate why certain zones were selected or excluded. Include ecological, social, and economic rational
7	Transition Developer Role Post-Zone Finalisation	Developers begin mitigation planning for overlaps (e.g., compensation, rerouting). Initiate baseline studies and engagement in selected zone

3.1.2 Developer Responsibilities

Even where the selection/identification of potential OSW development areas/sites is a government-led activity (as detailed above), most responsible/diligent developers also undertake their own stakeholder mapping/fisheries data analysis/risk assessment at this pre-approval and planning stage.

If done in a manner that recognises and takes account of (a) the potential sensitivity of the live government-led site identification process and (b) the confidential nature of the developers plans/strategy, then important information can be gathered that can inform the bidding/leasing process. Just as importantly, key relationships with fishing stakeholders can be initiated that will greatly benefit developers as/when they progress past securing a site and taking it through the permitting and licensing phases.

3.2 Developer Selection

3.2.1 Government Responsibilities

Embed community engagement & benefit-creation requirements in developer selection criteria

Embedding community engagement and benefit-creation requirements directly within developer selection criteria is a powerful policy lever for governments. It ensures that social value is not treated as a post-award obligation but is a determinant of who is awarded development rights. By integrating community expectations upfront such as transparent engagement, local benefit creation, capacity-building, and measures like strengthening local supply chains, apprenticeships and workforce development, governments can align commercial incentives with local inclusion, fair transition, and regional economic development. For Tamil Nadu, where OSW development areas interface with intensively used coastal communities and fishing economies, this approach would help ensure that transparent engagement, local benefit creation, and capacity-building commitments are built into project design and costed from the outset.

Table 3.4 details example of UK's TCE Round 5 which embeds community benefit in the developer selection criteria.

Table 3.4 Example of Developer Selection Criteria That Embeds Community Engagement Considerations

United Kingdom – The Crown Estate (Round 5, Celtic Sea)⁷⁵

The Crown Estate's Round 5 Information Memorandum combines social and community value as part of the developer selection criteria. Bidders must submit binding commitments aligned with the UK Government's Social Value Model, which forms part of the Stage 1 evaluation under the Invitation to Tender (ITT). The commitments are structured around four social-value pillars:

1. **Employment and training** – creating jobs and apprenticeships, with a focus on under-represented groups and coastal communities.
2. **Tackling inequality** – improving diversity, equity, and inclusion in the workforce.
3. **Environmental stewardship** – supporting net-zero transition and habitat protection.
4. **Community collaboration** – working with local communities to co-design sustainable benefits.

Developers must also submit a Community Impact Plan, Volunteering Plan and Apprenticeship & Skills Plan outlining concrete actions for local engagement and benefit delivery. These commitments are monitored and reported over the lifetime of the lease, ensuring social value is embedded as an enforceable criterion rather than an aspirational goal.

Table 3.5 below presents a checklist for government stakeholders to embed community engagement considerations in developer selection criteria.

75 (The Crown Estate, 2023) Retrieved from https://downloads.ctfassets.net/nv65su7t80y5/5zR4gHuqxjMG9NOK1LI2Av/643bfa91696be32408e5e2646c16bbba/Information_Memorandum.pdf

Table 3.5 Checklist for government stakeholders to embed community engagement considerations in developer selection criteria

1	Mandate community engagement and benefit creation as explicit evaluation criteria in OSW developer selection guidelines
2	Align with national and state priorities (e.g., blue economy, just transition, fisheries livelihood protection) to give legal weight to social value obligations
3	Clearly distinguish between community engagement, social benefit, and local content to prevent duplication or ambiguity in bid evaluation. Community engagement should focus on processes for transparent dialogue and stakeholder participation; social benefit should capture tangible outcomes for local communities, such as livelihood support or capacity-building; and local content should address commitments to domestic supply chains, workforce development, and skills enhancement. Establishing these distinctions ensures that each area is evaluated on its own merit, prevents duplication of scoring, and provides clarity for developers in meeting expectations.
4	Include community value metrics (e.g., engagement quality, local employment, coexistence plans, benefit delivery mechanisms) within the technical evaluation section
5	Allocate explicit weightage to community and social value criteria to ensure competitive social performance
6	Require submission of a “Community Benefit Plan” and “Local Benefit Delivery Plan” as part of the technical proposal

3.2.2 Developer Responsibilities

Embed benefit-creation early to build trust and reduce risk

During the bid stage, developers must begin designing inclusive community benefit mechanisms, including upskilling, alternate livelihoods, and compensation frameworks. These early actions set the tone for inclusive development and help mitigate future conflict.

Table 3.6 summarises the Equinor–Polenergia JV Model: An Example of Local Benefit Creation Strategy in Poland.

Table 3.6 Example of Local Benefit Creation Strategy In Poland

Equinor-Polenergia JV Model: An Example of Local Benefit-Creation Strategy in Poland

From the outset of the Bałtyk OSW projects, Equinor and Polenergia embedded local benefit-creation into project planning. Early stakeholder mapping and community engagement helped identify priority groups, especially coastal and municipal communities, and align initiatives with local development plans and socio-economic needs. This proactive inclusion built trust and ensured alignment between business goals and community priorities⁷⁶

The JV adopted a structured approach:

- **Local context and partnerships:** Detailed community and stakeholder mapping informed targeted engagement and collaboration with local institutions and municipalities
- **Focused initiatives:** Programmes were designed around ecosystem services, education, and awareness, such as workshops for local officials on safety and traffic management, and partnerships for biodiversity protection
- **Accessible information and visibility:** Local information centres and the Bałtyk123.pl portal ensured transparency, while a dedicated OSW exhibit at the National Maritime Museum in Gdańsk fostered public awareness

These initiatives strengthened the JV's social license to operate, enhanced project acceptance, and mitigated potential social risks by building informed local support

Key Takeaways:

- **Integrate early:** Embed benefit-creation in project design, not as post-approval add-ons
- **Build local presence:** Maintain open, continuous communication through local offices and accessible platforms
- **Align interests:** Design programmes that deliver tangible community value while advancing business objectives such as risk reduction, workforce readiness, and reputational trust

⁷⁶ [The Strategic Value of Community Benefits in Offshore Wind Development, 2024](#)

Table 3.7 Checklist for Developers During Bidding Stage

1	Early Engagement & Evidence	Conduct early mapping of fishers, port users, and community groups; document meetings and integrate outcomes into site design and bid annexures.
2	Stakeholder Engagement Strategy	Submit a structured plan detailing stakeholder engagement plan, engagement frequency, grievance channels, and local communication mechanisms.
3	Community Benefit Design	Quantify commitments on local employment, training, apprenticeships, and small-business inclusion; establish measurable targets.
4	Coexistence & Mitigation Plan	Outline plans for coexistence and compensation mechanisms to avoid conflicts;
5	Partnerships & Institutional Readiness	Demonstrate partnerships with local institutions, universities, or cooperatives
6	Reporting & Verification Commitments	Outline KPIs, third-party monitoring arrangements, and annual disclosure plans to track delivery.
7	Innovation & Long-Term Value	Propose social-innovation pilots (e.g. fisher safety technology, coastal restoration programmes) that extend beyond compliance, aligning with national transition goals

Refer to **Table 5.1, Appendix E** for detailed practical guidance for developers on structuring equitable and effective consultations.

3.3 Permitting and Licensing

3.3.1 Government Responsibilities

As OSW projects progress into the permitting and licensing phase, it is imperative that the government establishes robust mechanisms for community engagement within the regulatory framework. This includes the inclusion of public participation in permitting laws, ensuring that communities that are potentially impacted have formal, accessible avenues to provide input, feedback and feel heard. Additionally, the development of a transparent, fair, and enforceable compensation framework is key to addressing both direct and indirect potential impacts on livelihoods, particularly for vulnerable coastal populations. Such systems are critical to ensuring that no stakeholder is overlooked and that engagement processes are consistent, traceable, and inclusive.

Include public participation in permitting laws making consultations with fisheries stakeholders as statutory rather than optional

Statutory public participation transforms consultation from a discretionary checkbox into an auditable and enforceable part of permitting and licensing. For Tamil Nadu, where coastal livelihoods, small ports and seasonal fisheries intersect planned OSW footprints, codified public participation will help to reduce conflict, improve the quality of environmental information available to decision-makers, and ensure communities have the opportunity to inform project siting and design. **Table 3.8** details an example in the UK where public participation in licensing/permitting is critical and compulsory.

Table 3.8 Example of UK Embedding Public Participation in Permitting

United Kingdom - Planning Act 2008 (Section 47) and Planning Inspectorate guidance⁷⁷

- **Statement of Community Consultation (SoCC, s.47):** Applicants for Nationally Significant Infrastructure Projects (NSIPs) must prepare and publish a Statement of Community Consultation (SoCC) that sets out who will be consulted, the consultation methods, where documents will be located for inspection by the public and the timetable for pre-application consultation; the applicant must consult local authorities on the SoCC before publication.
- **Consultation execution and record:** Applicants must carry out consultation in accordance with the SoCC and subsequently submit a Consultation Report that records who was consulted, issues raised and how those issues were addressed in the Development Consent Order (DCO) application. The Planning Inspectorate's Advice Notes specify acceptable formats (exhibitions, deposit locations, online publication) and evidence required for the examination.
- **Timing and enforceability:** Guidance sets clear pre-application timing expectations (SoCC published before consultation; minimum notice periods for events) and makes compliance with duties material to examination of the DCO. Failure to follow SoCC obligations can affect the weight given to consultation in the decision.

The UK model ensures community participation is a formal process (SoCC, execution, Consultation Report) that is examinable, documented and required before consent decisions are made, thereby ensuring that participation is not just advisory, but a demonstrable input to license applications

⁷⁷ [Planning Act 2008: Pre-application stage for Nationally Significant Infrastructure Projects - GOV.UK](#)

Table 3.9 presents a checklist for government stakeholders to include public participation in licensing and permitting.

Table 3.9 Checklist for Government Stakeholders to Include Public Participation in Licensing and Permitting

1	Legal Mandate	● Statutory duty to consult: Require a formal SoCC or equivalent for major projects (define legal basis and applicable project thresholds) ● Define stakeholder universe: legally require identification of potentials affected communities, resource users, and all other relevant stakeholders
2	Timing and Timelines	● Pre-application SoCC publication: SoCC to be published before consultation begins ● Minimum consultation windows: set statutory comment periods (baseline 30–45 days, extendable for complex projects)
3	Formats and Accessibility	● Multi-format participation: require public exhibitions, targeted workshops, an online portal with downloadable documentation, and at least one local deposit point for hard copy documentation ● Plain-language disclosure: mandate non-technical summaries and local-language materials for all key documents
4	Record, Response and Remedies	● Mandatory Consultation Report: applicant must publish a Consultation Report documenting responses to feedback ● Authority statement of reasons & access to justice: Government must publish guidelines to inform public how input influences any permitting decision and provide review channels
5	Oversight and Enforcement	● Regulatory verification at intake: require government regulator checks on SoCC compliance before accepting applications for examination ● Monitoring & contractual enforcement: translate developer commitments in application into enforceable licence/lease conditions, require reporting and permit penalties or remedial measures for non-delivery

Develop clear and enforceable compensation frameworks

A key potential government responsibility during the permitting and licensing phase is the development of clear, transparent, and enforceable compensation frameworks to address the socio-economic impacts of OSW development. Establishing these frameworks at the permitting stage ensures that compensation is

not left to the discretion of individual developers and helps prevent future disputes, build trust, and provide a predictable basis for negotiation and redress. **Table 3.10** details examples of mandatory and voluntary compensation frameworks used on projects in Denmark and US, respectively.

Table 3.10 Examples of Compensation Frameworks

Denmark ⁷⁸	United States ^{79,80}
Compensation for OSW impacts is legally mandated and integrated into the project licensing process, with structured engagement of fisheries stakeholders under the Danish Fisheries Act	Compensation mechanisms are largely voluntary and often negotiated bilaterally between developers and states
National Legal Framework: ● The Danish Fisheries Act mandates that developers compensate all fishermen operating in affected areas for income losses caused by OSW development ● Compensation must be negotiated with each affected fisherman (individually or via the Danish Fishermen’s Association), and the production license cannot be granted without such agreements ● Payments are based on documented losses, typically assessed through multi-year fisheries data Independent consultants, jointly overseen by the developer and fisheries bodies, determine final amounts.⁶²	BOEM and State-Level Agreements ● Under BOEM’s 2025 Fisheries Mitigation Guidance, leaseholders must include in their Site Assessment Plans (SAPs), Construction and Operations Plans (COPs), and General Activities Plans (GAPs) detailed socio-economic assessments and mitigation strategies for commercial and for-hire recreational fisheries. ● BOEM does not mandate compensation but accepts developer-led mechanisms (e.g., compensation funds) through MOUs or legal contracts. These may be incorporated into lease or plan conditions, becoming enforceable ● Mitigation measures must include governance, monitoring, reporting, and adaptive management. BOEM emphasises early coordination with states, Tribes, and stakeholders to ensure alignment and protect Tribal and treaty fishing rights ● Certain models (e.g., fixed-bottom

78 [Offshore Wind and Fisheries in Denmark, December 2018](#)

79 Sea Grant . (2024, May 01). Offshore Wind Developers Set Up Compensation Funds to Offset Harms to Fishers, Coastal Communities. Retrieved from Rhode Island Sea Grant :

<https://seagrant.gso.uri.edu/offshore-wind-developers-set-up-compensation-funds-to-offset-harms-to-fishers-coastal-communities/#:~:text=On%20the%20federal%20side%2C%20BOEM%20approves%20and,use%20contract%20law%20to%20pursue%20a%20claim.>

80 https://www.boem.gov/sites/default/files/documents/renewable-energy/Fisheries-Mitigation-Guidance_0.pdf

Denmark⁷⁸

United States^{79,80}

compensation methods) may not apply to floating wind, requiring tailored mitigation approaches

Key Takeaways:

- Legal mandates ensure early, enforceable compensation commitments
- Compensation design must account for direct and indirect losses (e.g., relocation, operational delays)
- Developers must engage independently with all stakeholders, not only associations
- Denmark’s phased construction and fishery integration (e.g., guard vessels, static gear) are useful mitigation strategies

Key Takeaways:

- Voluntary agreements need clear governance structures and enforceability
- Flexibility allows for tailored compensation aligned with state-level needs
- Formal documentation (e.g., MOUs or legal contracts) can ensure accountability
- Developers and states must coordinate early to avoid gaps in support and regulatory mismatch

In the context of compensation mechanisms, it is also important to note Belgium’s approach, which relies on proactive spatial planning rather than compensation to manage potential conflicts. Under the Belgian MSP 2020–2026, zones for OSW, nature conservation, fishing, and other maritime uses are designated in advance⁸¹, effectively addressing spatial conflicts before any wind-farm project begins. Because OSW energy zones are defined upfront, and active fishing is generally restricted or prohibited within wind-park areas, there is no statutory requirement for post-allocation fisheries compensation. In practice, Belgian policy substitutes spatial zoning and access regulation for compensation, illustrating how pre-emptive planning can reduce fisheries, wind conflicts when zoning is clear, enforceable, and developed through stakeholder engagement.

3.3.2 Developer Responsibilities

During permitting and licensing, developers take on a critical role in building trust and preparing communities for long-term engagement. Their responsibilities begin with conducting comprehensive stakeholder mapping, appointing both CLOs and FLOs at an early stage, co-developing baseline studies with fishers, and initiating two-way, proactive transparent communication about the project and its potential impacts. These actions are essential to translating regulatory requirements into meaningful, community centred engagement.

Refer to **Table 5.4** in **Appendix E** for the distinction between the roles and responsibilities of CLOs and FLOs.

81 [brochure something is moving at sea 2020.pdf](#)

Conduct comprehensive stakeholder mapping for OSW project

Stakeholder mapping is the foundation of inclusive OSW development. In Tamil Nadu, this step is especially vital due to the diversity in coastal demographics, fishing gear types, caste and gender roles, migratory patterns, and species dependency. Without disaggregated data, engagement risks excluding vulnerable groups and misaligning compensation or livelihood programmes. **Table 3.11** summarises early mapping using tools that can enable targeted, equitable, and conflict-sensitive planning across all phases:

Table 3.11 Tools for Stakeholder Mapping

Tool	Description
Interest–Influence Matrix	- Assesses stakeholders based on their level of interest in and their ability to influence the outcome of a project - Helps guide engagement strategies to ensure effective communication
Power–Interest Grid	- Classifies stakeholders based on their level of power to influence a project and their interest in its outcomes - Assists in stakeholder prioritisation
Actor–Linkage Matrix	- Maps relationships (conflict, cooperation, complementarity) between stakeholders - Highlights potential conflicts and alliances. Helps to clarify roles, dependencies and informs the engagement strategy.
Social Network Analysis	- Used to examine relationships and interactions among stakeholders - Helps to identify key influencers and centres of power - Useful to identify grassroots influencers and informs the stakeholder strategy
Participation Planning Matrix	- Helps to determine the correct level of participation for different stakeholders (inform, consult, collaborate, co-decide) - Allows for the appropriate level of engagement to be mapped, prevents tokenistic consultation

Appoint CLOs and FLOs early

For developers, the early appointment of CLOs and FLOs is a foundational step toward ensuring inclusive, transparent, and culturally sensitive engagement. These officers serve as the primary

interface between project teams and coastal communities, facilitating two way dialogue, documenting concerns, and supporting grievance resolution from the outset. Their presence helps build trust, reduce misinformation, and align project planning with local marine calendars and livelihood patterns. **Table 3.12** below details an example from the Green Volt OSW Project in the UK, where early appointment of liaison officers resulted in improved public perception, reduced conflict, and enhanced stakeholder participation.

Table 3.12 Example of Early Appointment of CLO/FLO by Green VOLT, UK

Green Volt Offshore Wind Project, UK⁸²

Developed by Flotation Energy and Vårgrønn, the Green Volt project is a 400 MW floating OSW farm located approximately 80 km off the coast of Aberdeenshire, Scotland. It is currently in the pre-application/permitting phase under Crown Estate Scotland's INTOG leasing process (Green Volt, 2025).

Community and Fishing Liaison approach included:

- **Proactive liaison appointments:** Despite no statutory requirement, CLO and FLO were appointed before formal consultations
- **Innovative engagement model:** The FLO led a community café initiative in Peterhead, offering informal, non-promotional spaces for dialogue. Events included music classes and community gatherings to build trust
- **Neutral communication role:** The FLO acted as a reliable, unbiased source of information exchange, separate from statutory processes like the EIA

Key Takeaways:

- Enhanced public perception and trust
- Increased quality of stakeholder participation
- Reduced conflict and misinformation
- Improved project design through early input

Table 3.13 below details the checklist for developers for appointing CLOs and FLOs

⁸² Green Volt. (2025). Community Engagement . Retrieved from Green Volt: <https://greenvoltoffshorewind.com/community-engagement/>

Table 3.13 Checklist for Developers for Appointing Clos and Flos

1	Timing and Continuity	● Appoint the CLO/FLO at project onset to ensure early engagement. ● Maintain ongoing engagement throughout the project lifecycle, including O&M and decommissioning
2	Local Representation and Cultural Fit	● Prioritise candidates from local fishing or coastal communities. ● Ensure familiarity with local dialects, customs, and socio-political dynamics
3	Professional Competence	● Require experience in community engagement, conflict resolution, or marine/coastal governance for CLO. FLOs should be from the local area with extensive fishing experience ● Provide training on project details, engagement methods, regulatory frameworks, and grievance redress systems
4	Dedicated Role and Accessibility	● Ensure the CLO/FLO is a full-time, standalone position, not combined with technical or administrative roles ● Establish a local office or regular presence in the project area with clear contact hours
5	Engagement Tools and Methods	● Equip the CLO/FLO with visual aids, multilingual materials, and digital tools to communicate project impacts effectively. ● The production of a Stakeholder Engagement Strategy will allow a single source of information with regard to projects approach to engagement
6	Integration of Feedback	● Set up systems for documenting engagement, community feedback, tracking grievances, and reporting to the project team ● Use feedback to adapt project design where appropriate and inform decision-making

Ground baseline studies in science and participation

During permitting and licensing, developers must ensure that baseline studies integrate local knowledge and community participation. These studies should integrate both ecological and socio-economic dimensions, capturing seasonal fishing patterns, gear interactions, and community knowledge to inform turbine layout, construction scheduling, and long-term monitoring. This approach is especially relevant in Tamil Nadu, where species diversity, gear types, and migratory fishing practices vary significantly across districts.

Table 3.14 details the example of the Westermost Rough OSW farm (UK), which illustrates how participatory processes in baseline studies can build trust and reduce opposition to OSW farms.

Table 3.14 Example of Participatory & Scientific Study by Ørsted

Westermost Rough Offshore Wind Farm, UK⁸³

Located off the Yorkshire and Humber coast in the North Sea, the Westermost Rough OSW Farm involved key stakeholders including Ørsted, the Holderness Fishing Industry Group (HFIG), TCE and marine consultants. The project area overlaps with high-value shellfish fisheries, particularly lobster and crab, using static gear in nearshore waters.

Participatory, science-based engagement with fishing communities included:

- *Independent Study:* Ørsted funded a 7-year study (2011–2018) with HFIG and CEFAS to monitor lobster catch rates and population before, during, and after construction; peer-reviewed results showed no significant impact from the wind farm.
- *Fisher Collaboration:* Fishers co-designed sampling protocols, provided vessels, and collected data via surveys and logbooks, building trust and producing regulator-accepted evidence.
- *Contextual Responsiveness:* Seasonal sampling captured natural variability; partnership evolved into post-construction research and informed coexistence guidelines.
- *Key Outcome:* Long-term, structured engagement delivered credible science-based evidence to address concerns and strengthen regulatory confidence.

Key Takeaways:

- Long-term monitoring confirmed no measurable impact on lobster stock health or catch rates
- Fisher-led data informed turbine layout to reduce overlap with static gear areas
- Post-construction research established a model for science-based coexistence between fisheries and OSW

⁸³ [Co-existence in practice: a collaborative study of the effects of the Westermost Rough offshore wind development on the size distribution and catch rates of a commercially important lobster \(*Homarus gammarus*\) population | ICES Journal of Marine Science | Oxford Academic](#)

Design immersive & inclusive awareness generation campaigns

As part of their responsibility during the permitting and licensing phase, developers must go beyond regulatory compliance to ensure that project information is accessible, relatable, and inclusive. In diverse and multilingual regions like Tamil Nadu, traditional consultation formats often fail to reach or resonate with all stakeholder groups, particularly small-scale fishers, women's SHGs, and youth. Immersive and culturally relevant awareness campaigns can help bridge this gap by making complex technical information understandable, fostering trust, and enabling informed participation in decision-making processes. In many cases around the world, developers also provide a modest payment to fishers and other community members for attending participatory mapping sessions and similar engagement activities, as compensation for time taken away from normal economic activities. **Table 3.15** details the checklist for developers for designing immersive & inclusive awareness campaigns:

Table 3.15 Checklist for Developers for Designing Immersive and Inclusive Awareness Campaigns

1	Audience-Centric Design	● Identify and segment target groups (e.g., fishers, SHGs, youth, traders). ● Tailor content to local languages, literacy levels, and cultural contexts.
2	Accessible Formats	● Use visual tools such as infographics, 3D maps, and illustrations. ● Translate key materials into local languages (e.g., Tamil). ● Provide audio-visual content for low-literacy audiences.
3	Immersive Communication Tools	● Incorporate virtual reality (VR) simulations, interactive models, or mobile exhibitions to visualise project impacts. ● Use mobile vans, kiosks, or community radio for outreach in remote areas.
4	Culturally Resonant Engagement	● Leverage local festivals, fish markets, schools, and SHG meetings as platforms for outreach. ● Use folk media, street theatre, and storytelling to communicate key messages.
5	Two-Way Communication	● Facilitate interactive sessions rather than one-way presentations. ● Include Q&A forums, feedback collection, and follow-up mechanisms.

6	Timing and Frequency	● Schedule campaigns well before key permitting milestones. ● Ensure repeated engagement to reinforce understanding and address evolving concerns.
7	Monitoring and Adaptation	● Track participation across demographics (gender, caste, occupation). ● Use feedback to refine messaging and formats over time.
8	Compensation for Participation	● Offer modest payments or stipends to fishers and other community members for attending participatory mapping sessions and engagement activities, as compensation for time away from normal economic activities. ● Ensure transparency and fairness in payment processes to maintain trust and avoid conflicts.

3.4 Construction and O&M

3.4.1 Government Responsibilities

Mandate ongoing CLO/FLO involvement

Including a requirement to appoint CLO and FLO roles within relevant government-granted project permits/licences ensures that community communication, safety coordination, and grievance redressal continue seamlessly from the permitting and licensing phase to the construction and O&M phases. Clear regulatory provisions for both roles also strengthen public confidence in the oversight of OSW projects.

While governments define the framework, developers are ultimately responsible for operationalising and sustaining CLO and FLO functions as integral parts of project management. This includes proactive communication, issue tracking, and transparent reporting mechanisms to ensure local communities, fishers, and marine users remain informed and engaged.

3.4.2 Developer Responsibilities

During the construction and O&M phase, developers are responsible for establishing centralised and digital hubs for communication and grievance redressal, which are essential for maintaining transparency and responsiveness as project activities intensify. To ensure compliance with project permits/licences, developers must also deploy dedicated CLOs and FLOs throughout this phase. This is also needed to sustain trust and facilitate ongoing dialogue with local stakeholders. Additionally, in many jurisdictions, developers are expected/required to implement and disburse

community benefit mechanisms, including funds, skilling programmes, and social value initiatives, in alignment with commitments made during earlier phases. While the government may set overarching criteria and monitor compliance, the responsibility for execution, local engagement, and adaptive delivery rests with the developer.

Ensure ongoing CLO and FLO engagement throughout construction and O&M phases

Maintaining continuous engagement through CLOs and FLOs is a core developer responsibility during the construction and O&M phases of OSW projects. In Tamil Nadu, where marine activities are seasonal and community dynamics vary across coastal blocks, sustained liaison presence ensures that project updates, access issues, and benefit-creation mechanisms are communicated clearly and responsively. CLOs and FLOs must remain active throughout the 20–35-year operational lifecycle, serving as consistent points of contact, supporting grievance resolution, and facilitating community participation in monitoring and adaptive management.

On many projects, project-specific, or regional fisheries working groups are established that provide a forum for fisheries stakeholders to raise concerns and discuss potential solutions.

Establish centralised & digital hubs for communication and grievance procedures

Centralised and digital communication hubs are essential developer-enabled tools that ensure transparency, accessibility, and responsiveness throughout the OSW project lifecycle. By providing a single interface for updates, feedback, and grievance management, these systems reduce information asymmetry and build stakeholder trust, particularly among coastal and fishing communities directly affected by project activities.

Table 3.16 Example of East Anglia One, UK

East Anglia ONE, UK⁸⁴

The East Anglia ONE OSW Farm, developed by ScottishPower Renewables, exemplifies an effective digital engagement system. The project established a dedicated communications hub combining:

- Real-time online dashboards with marine activity updates, safety zones, and fishing corridor notifications.
- Mariner Notices and text/email alerts distributed through the Marine Coordination Centre and local fishing liaison networks.
- A 24-hour helpline and issue-tracking system allowing fishers and port users to log concerns, receive acknowledgement, and track resolution status.

These tools were coordinated with statutory authorities such as the Marine Management Organisation (MMO) and aligned with TCE good-practice guidance on information transparency. The approach significantly improved operational safety and community confidence during construction and maintenance phases.

Deploy flexible, community-driven benefit funds to strengthen local engagement and deliver lasting social and economic impact

Community Benefit Funds (CBFs) and Social Value Programmes are most effective when co-designed, transparently governed, and locally administered. Global examples show that inclusive governance involving fisher cooperatives, women's groups, and panchayats enhances impact and legitimacy. Multi-year planning, participatory needs assessments, and dedicated resources for vulnerable groups ensure alignment with community priorities and adaptability over time. Long-term continuity, rather than one-off disbursements, builds trust and sustained outcomes.

Developers that integrate social value frameworks and upskilling initiatives into project lifecycles are accountable for strengthening local partnerships and workforce resilience. As seen in **Table 3.17**, leading UK models link developer obligations to measurable outcomes such as job creation, fisher training, and social metrics in licensing, supported by transparent monitoring and capacity-building programmes that extend beyond construction.

⁸⁴ ScottishPower Renewables, "East Anglia ONE Community Engagement Report," 2019; UK MMO & Crown Estate Offshore Wind Engagement Guidance, 2018–2020.

Table 3.17 Example of Beatrice Offshore Wind Farm, Scotland

Beatrice Offshore Wind Farm, Scotland⁸⁵

The Beatrice Community Fund (BCF), established during the construction of the Beatrice Offshore Wind Farm (BOWL) in 2016-17, aimed to strengthen local communities in Caithness, Sutherland, and Moray through community development, economic resilience, and net-zero transition.

BCF comprised two components:

- *Partnership Fund*: Large-scale, lasting impact projects overseen by a regional expert panel
- *Local Funds*: Targeted support for nearby communities, decided by local panels
- Funding aligned with UN SDGs and focused on legacy building and empowerment initiatives.

The BCF created significant impact by distributing £6 million in total funds, supporting 361 projects, including 22 Net Zero initiatives, creating 73 jobs⁸⁶, and enhancing 64 community assets. It maintained 91% project continuity, generated £3.21 in wider value per £1 invested, and annually supported 150 families through the Moray Baby Bank and 250 elderly residents via the Dunbar Centre.

Key takeaways:

- Flexibility in fund duration is crucial for sustained impact.
- Strong developer-community relationships enhance effectiveness.
- Pilot funding helps ideas grow organically and improves outcome.

Refer to **Table 5.2**, and **5.3 Appendix E** for a checklist on considerations for designing and implementing a community benefits programme, and a toolkit for designing and implementing CBFs and social value programmes.

⁸⁵ [Beatrice Offshore Wind Farm Ltd, Sharing the Benefit of Offshore Wind](#)
⁸⁶ Including apprenticeships

3.5 Decommissioning

3.5.1 Government Responsibilities

Mandate community consultations prior to decommissioning

Relevant country governments play a critical role in ensuring that decommissioning is conducted in a transparent, accountable, and socially responsible manner. This includes mandating community consultations well in advance of decommissioning activities, establishing clear legal timelines and procedural requirements for decommissioning engagement. These frameworks should define expectations for environmental restoration, stakeholder engagement, and post-use monitoring, ensuring that communities are not left uncertain about long-term impacts.

Regulating consultation before decommissioning ensures that affected communities have full access to and can feedback on project decommissioning plans, minimise socio-economic disruption, and shape restoration or reuse options. For Tamil Nadu, where marine livelihoods are densely concentrated, formal protocols will prevent conflict and build transparency in the decommissioning phase of the OSW lifecycle. **Table 3.18** highlights how community consultations during decommissioning can be included in lease agreements using examples from the UK and Netherlands.

Table 3.18 Examples of Inclusion of Community Consultations Prior to Decommissioning in Legislation

United Kingdom	Netherlands
BEIS Decommissioning Guidance for Offshore Renewable Energy Installations ⁸⁷	RVO Offshore Wind Guide and North Sea Programme 2022–2027 ⁸⁸
- Under the Energy Act 2004, developers must submit a Decommissioning Programme (DP) for approval before decommissioning begins. - The Department for Energy Security and Net Zero (formerly BEIS) consults TCE, MMO, local authorities and other stakeholders on each DP. - Developers are expected to demonstrate how they have engaged stakeholders and addressed concerns within their DP.	- Decommissioning plans must align with the North Sea Consultation Framework, which includes stakeholder mapping and consultation on removal methods and timing. - The Dutch government facilitates sectoral dialogue with fishers and coastal authorities through the North Sea Consultation Council before final approval.

⁸⁷ [Decommissioning Of Offshore Renewable Energy Installations Under The Energy Act 2004, Guidance notes for industry \(England and Wales\) – consultation draft, 2018](#)

⁸⁸ [Dutch Offshore Wind Guide, 2022](#)

Table 3.19 below indicates the checklist for governments to embed community consultations prior to decommissioning in legislation.

Table 3.19 Checklist for Governments to Embed Community Consultation Prior to Decommissioning in Legislation

1 Legal trigger & scope	● Statutory submission requirement: require an approved Decommissioning Programme (DP) as a pre-condition to any decommissioning works (to be included with the project application) ● Define covered assets & thresholds: specify which infrastructure and what scale of works trigger full public consultation (e.g., full turbine removal vs. partial foundations left <i>in situ</i>)
2 Notification & timelines	● Early notification window: Mandate operator notification to affected stakeholders and regulators well in advance (e.g., 2-5 years before planned cessation) so communities can prepare and comment ● Minimum consultation period: Set a minimum public comment period on the DP (e.g., 30-60 days, extendable for complex sites)
3 Engagement formats & stakeholder targeting	● Multi-format consultation: require public exhibitions, targeted workshops, and online disclosure (DP, non-technical summary, GIS layers) ● Mandatory targeted outreach: require dedicated consultation sessions with high-priority users and documented consultations
4 Transparency & Impact Assessment	● Publish technical and baseline data: require disclosure of monitoring datasets, baseline environmental and socio-economic data (VMS/AIS, CPUE, landing statistics) underpinning the DP so stakeholders can review assumptions
5 Remedies, compensation & grievance	● Compensation & mitigation pathway: Require DP to set out mitigation first, and a compensation mechanism for demonstrable residual socio-economic losses ● Grievance and appeals process: establish accessible dispute resolution procedures (mediation/arbitration/administrative appeal) with clear timelines for handling disputes arising from decommissioning decisions

Establish clear legal liabilities & timelines for site restoration

It is the government's responsibility to establish clear, enforceable timelines and liability provisions for site restoration to ensure environmental accountability and public trust. OSW regulations must define which party bears responsibility for seabed clearance, debris removal, and ecological remediation, and specify when these

liabilities transfer from developers to the state. **Table 3.20** below highlights the UK and Denmark regulations for decommissioning.

Table 3.20 UK & Denmark Legislation on Decommissioning

United Kingdom: Energy Act 2004, Part 2 & BEIS Decommissioning Guidance (2018)⁸⁹	Denmark - Executive Order no. 1351/2020 on Decommissioning of Offshore Renewable Energy Installations
● The Energy Act 2004 mandates that developers submit a Decommissioning Programme (DP) for ministerial approval, detailing timing, cost, and restoration methods ● Developers remain legally liable for decommissioning and site restoration until the Secretary of State confirms compliance and formally releases them from obligations ● The BEIS 2018 guidance further requires that decommissioning milestones and environmental recovery measures be included in the DP, ensuring transparent timelines and accountability	● The Danish Energy Agency (DEA) requires a Restoration and Removal Plan to be submitted before licence expiry, including specific timelines for WTG, cable, and foundation removal ● Developers retain full liability and financial responsibility until the DEA verifies that seabed restoration is complete and issues a formal release ● A financial guarantee must be maintained throughout the project life cycle to cover all restoration costs

3.5.2 Developer Responsibilities

Create and implement decommissioning engagement strategy
Developers are responsible for executing the decommissioning plan in accordance with legal requirements and community expectations. This includes the safe removal or repurposing of infrastructure, restoration of marine ecosystems, and fulfilment of any compensation or liability obligations. Developers must also engage with local communities to communicate timelines, safety protocols, and post-decommissioning outcomes. Ensuring that decommissioning is conducted responsibly helps maintain trust, mitigates environmental risks, and supports the sustainable reuse of marine spaces, whether for conservation, fisheries, or future renewable energy projects.

Ensure ongoing CLO and FLO engagement
As per the construction and O&M phases, maintaining continuous engagement through CLOs and FLOs is a core developer

⁸⁹ [Decommissioning of offshore renewable energy installations under the Energy Act 2004: guidance notes for industry](#)

responsibility during the decommissioning phase. They will serve as consistent points of contact, supporting grievance resolution, and facilitating community participation in monitoring and adaptive management.

Establish centralised and digital hubs for communication and grievance procedure

As per during construction and O&M phases.

Please refer to **Figure 4.8** and **Figure 4.9** in **Appendix D** for the overarching community engagement principles applicable to all phases of the project

4 Community Engagement Tool Kit for Tamil Nadu



4 Community Engagement Tool Kit for Tamil Nadu

This section draws from global community engagement best practices and presents recommendations tailored to Tamil Nadu's context, highlighting what can be adapted to ensure inclusivity and transparency.

Inclusive OSW development in Tamil Nadu needs both the government and developers to share responsibility for ensuring robust and transparent engagement. However, the government's role is particularly critical at the early stage in establishing enabling regulatory frameworks and institutional mechanisms. Drawing from international best practices and comparing them with Tamil Nadu's current regulatory landscape, it is evident that while foundational steps have been initiated, there remain areas for further development to ensure inclusive, transparent, and meaningful engagement.

Table 4.1 below presents a comparative overview of global best practices in stakeholder engagement and Tamil Nadu's current status, highlighting opportunities for improvement in a forward-looking manner.

Table 4.1 Comparative Overview of Best Practices in Stakeholder Engagement

Phase	Government Best Practices	Status of Tamil Nadu's OSW Regulation
Pre-Approval & Planning	● Conduct comprehensive stakeholder mapping and species baseline studies for MSP ● Facilitate inclusive site identification through MSP and transparent site selection	● MSP and pre-feasibility documents list general stakeholder groups such as "fisherfolk/ fishing communities" and "local users"⁹⁰. However, they do not detail socio demographic or occupational disaggregation (e.g., caste, gender, migrant status), nor reflect stakeholder mapping exercises with community participation ● Baseline surveys conducted by NIWE and the National Institute of Ocean Technology (NIOT) are largely technical, focusing on seabed and meteorological conditions (NIWE, 2017). There is no public evidence of co-created surveys with fishers or coastal

⁹⁰ Centre of Excellence for Offshore Wind. (2022, November). *Maritime spatial planning for offshore wind farms in Tamil Nadu*. Centre of Excellence for Offshore Wind and Renewable Energy

Phase	Government Best Practices	Status of Tamil Nadu's OSW Regulation
		communities, nor inclusion of local ecological knowledge, especially in biodiversity-sensitive zones like Gulf of Mannar⁹¹. - Under the India Denmark Centre of Excellence for Offshore Wind (CoE-OSW), an MSP report was developed for Tamil Nadu, outlining potential OSW development zones and highlighting coordination across marine sectors (CoE-OSW, 2022) - The MSP report primarily focused on technical zoning and inter-agency coordination, identifying priority areas for OSW development off the Tamil Nadu coast. The MSP process included consultations with key institutional stakeholders such as central and state government agencies, port authorities, maritime regulators, and OSW developers to ensure alignment with policy frameworks and infrastructure planning. However, there is no evidence of direct engagement with local coastal communities or marine resource users such as fishers during this stage of planning
Developer Selection	Embed community criteria in developer selection	The government's OSW strategy includes models for VGF and survey-based development⁹². However, there are no mandatory pre-tender social accountability clauses, such as a CSR based or onshore project implementation-based scoring tied to tender evaluation
Permitting & Licensing	- Include public participation in permitting laws - Develop clear and enforceable compensation	- OSW projects in India must comply with EIA Notification, 2006, including public hearings for Category A/B1 projects⁹³. However, no OSW specific regulations formally require public participation during permitting stages. - India currently has no OSW specific

91 Neithal Protection Council. (2025). *Offshore Wind Energy Projects in South India: Indigenous Coastal Communities Left in Dark*. AIPNEE https://aipnee.org/wp-content/uploads/2025/05/Briefer-Offshore-Wind-Energy-Projects-in-South-India_final.pdf

92 MNRE. (2022). *Strategy Paper for Establishment of Offshore Wind Energy Projects*.

93 Ministry of Environment, Forest and Climate Change, Government of India. (2006, September 14). *Environment Impact Assessment Notification, 2006* (Notification No. S.O. 1533(E), dated 14 Sept. 2006). *The Gazette of India*. Retrieved from https://environmentclearance.nic.in/writereaddata/EIA_notifications/2006_09_14_EIA.pdf

Phase	Government Best Practices	Status of Tamil Nadu's OSW Regulation
	frameworks	compensation framework for fishing disruptions, gear loss, or exclusion zones, and existing mechanisms under the CRZ Notification ⁹⁴ .
Construction & O&M	● Mandate CLO/FLO involvement	● There is no formal mandate for appointing CLOs or FLOs within MNRE or NIWE's OSW development processes. In some cases, NGOs like the Neithal Protection Council have stepped in to mediate between developers and fishers, for OSW projects, particularly around the Gulf of Mannar, but without institutional support or recognition⁹⁵
Decommissioning	● Mandate community consultations prior to decommissioning ● Establish clear legal liabilities and timelines for site restoration	● Energy Lease Rules, 2023 require developers to submit a Decommissioning Plan during the lease application phase⁹⁶. However, these rules do not mandate public consultation or stakeholder engagement during the decommissioning phase. ● The EIA Notification, 2006 requires public hearings at project initiation but does not extend these provisions to decommissioning activities.

4.1 Community Engagement Plan

For OSW development in Tamil Nadu, a well-structured community engagement plan is essential, one that clearly defines the roles and responsibilities of both the government and developers. The government must take the lead in addressing existing areas of development summarised in **Table 4.1** by strengthening regulatory frameworks, building institutional capacity, and ensuring early and inclusive stakeholder participation. These priority actions are summarised in **Table 4.2**, offering a plan for enabling transparent and equitable engagement.

⁹⁴ Ministry of Environment, Forest and Climate Change (MoEFCC). (2011). *Coastal Regulation Zone (CRZ) Notification, 2011*. Government of India.

⁹⁵ AIPNEE. (2023, November 3). *Offshore wind energy projects in South India: Indigenous coastal communities left in dark*. Alliance for the Implementation of People's National Environmental Entitlements (AIPNEE). Retrieved from <https://aipnee.org/news-and-updates/offshore-wind-energy-projects-in-south-india-indigenous-coastal-communities-left-in-dark>

⁹⁶ MNRE. (2023). *Energy Lease Rules, 2023: Guidelines for leasing land for renewable energy projects, including decommissioning requirements*. Government of India.

Table 4.2 Key Government Responsibilities

Phase	Activity
Pre-Approval & Planning	● Establish CLCLCs as focal points for OSW coordination
	● Validate pre-identified OSW development areas using participatory MSP and species baselines studies
Developer Selection	● Strengthen bid submission criteria to include community consultation plan ⁹⁷
	● Strengthen bid submission criteria to include community benefit plan
Permitting & Licensing	● Strengthen lease protocol to include community consultation
	● Strengthen lease protocol to include compensation frameworks for fisheries impact
	● Develop a centralised OSW portal for licensing transparency
Construction & O&M	● Mandate community liaison operations during construction and O&M phases
Decommissioning	● Mandate public hearings (two years prior) prior to decommissioning
	● Clarify liability transfer

In parallel, developers, while their role becomes more prominent during project implementation, should begin preparing for meaningful community engagement from the outset. By aligning with global best practices and anticipating local needs, developers can foster trust, reduce risks, and contribute to long-term project success. **Table 4.3** outlines key guidance and action items for developers to consider across the different phases of OSW projects.

⁹⁷ Bidders are not expected to conduct direct community consultations prior to auction. Pre-auction engagement is to be led by the government. Instead, bid submission criteria should require a consultation plan outlining how developers intend to engage affected communities post-allocation, in line with government guidelines and social safeguards.

Table 4.3 Key Developer Responsibilities

Phase	Activity
Developer Selection	Establish partnerships with local NGOs and community institutions for long-term engagement
	Develop and submit detailed stakeholder engagement plan and community benefit plan
Permitting & Licensing	Appoint CLOs/FLOs to liaise with government-recognised CLCLCs and local communities
	Conduct baseline study on fish stocks and demonstrate coexistence potential; ensure monitoring framework is in place for entire project lifecycle
	Share non-technical disclosures via local channels, disseminate accessible EIA/SIA summaries in Tamil and visual formats, use culturally resonant engagement formats (e.g., storytelling, local events)
Construction & O&M	Deploy CLOs/FLOs throughout Construction & O&M Phase
	Launch real-time marine activity updates platform
	Maintain informal engagement touchpoints continuously
Decommissioning	Establish pre-agreed compensation dispute resolution framework
	Deploy CLOs/FLOs throughout decommissioning phase

4.2 Government Responsibilities

4.2.1 Pre-Approval and Planning

Establish Cluster-Level Community Liaison Committees as focal points for OSW coordination

The Government of Tamil Nadu must establish CLCLCs in each identified OSW development area, to serve as formal, decentralised focal points for all community-related engagement in OSW development. These committees should be formed prior to the licensing phase and embedded within the broader regulatory framework to ensure continuous, inclusive, and accountable engagement with local stakeholders. CLCLCs will play a central role in facilitating community dialogue, grievance redressal, co-design of project elements, and monitoring of social safeguards, thereby anchoring OSW development in local realities and priorities.

Table 4.4 summarises key locations, stakeholder groups to be included, lead government agencies, and potential support partners for effective rollout.

Table 4.4 Implementation Framework for Cluster-Level Community Liaison Committees

Led by Government Agencies	Supporting NGO Partners	Potential Clusters	Potential Stakeholders
● MNRE & NIWE: To integrate CLCLCs into OSW regulatory frameworks ● Department of Fisheries, Local Panchayats & District Administrations: For logistical and administrative support	● MSSRF (For facilitation)	● Thoothukudi ● Udangudi ● Kanyakumari ● Rameswaram ● Nagapattinam	● Mechanised and non-mechanised fisher folk ● SHGs and women seafood workers (e.g., dry fish processors, seaweed harvesters) ● Fish vendors and transporters ● Fishing union representatives ● Traditional community leaders and church or mosque intermediaries

Action Items:

1. Form CLCLCs in all identified OSW zones with representative members from mapped stakeholder groups

- Within each committee, nominate a Lead Officer to function as the formal point of contact between communities, developers, and government agencies
- Clearly outline roles such as:
 - Facilitating community consultations
 - Liaising with Project CLOs / FLOs
 - > Managing grievance redress
 - > Participating in project co-design
 - > Monitoring social and environmental safeguards
- Set up meeting schedules, documentation formats, and communication channels for regular engagement and feedback

2. Amend OSW and fisheries regulations to formally recognise CLCLCs as mandatory consultative bodies in project planning, permitting, and monitoring

- Engage NGOs and technical agencies (e.g., MSSRF) for training, facilitation, and ongoing support.
- Establish feedback mechanisms to assess committee effectiveness and adapt structures as needed over time.

Validate pre-identified OSW development areas using participatory MSP and species baseline studies

Tamil Nadu's OSW development areas, identified by NIWE and MNRE, require community-based engagement to ensure alignment with local ecological, cultural, and livelihoods. While national data platforms like INCOIS and NCSCM inform site selection, they do not capture critical community knowledge of fishing grounds, sacred marine spaces, seasonal patterns, and traditional navigation routes. Hence, validating the pre-identified OSW development area using participatory MSP will help bridge this gap.

Table 4.5 summarises how this process can be implemented, including key locations, stakeholder groups, implementing agencies, and technical partners.

Table 4.5 Participatory Validation Framework for Offshore Wind Zones

Led by Government Agencies	Supporting NGO Partners	Potential Mapping Scope
- Department of Fisheries, Local Panchayats & District Administrations: For logistical and administrative support - MNRE & NIWE: To integrate considerations into final site leasing decisions	- MSSRF: For participatory mapping and facilitation - SDMRI: For biodiversity overlays, especially in the Gulf of Mannar	- Fishing zones and seasonal access routes - Breeding and nursery areas - Sacred marine spaces and cultural no-go zones - Anchor points and navigation corridors - Species calendars and inter-village marine use patterns

Action Items:

- Conduct zone-specific workshops facilitated by CLCLCs identified in step 1, involving fishers, SHGs, cultural stewards, and marine traders
- Use geo-referenced maps, seasonality charts, and species calendars to document marine use patterns and validate OSW zones
- Cross-reference technical site data with community inputs to identify overlaps, sensitive areas, and potential conflicts
- Document findings from each workshop and submit to NIWE and MNRE for consideration in final site leasing decisions
- Recommend amendments to the Offshore Wind Energy Lease Rules, 2023 to include participatory validation as a mandatory pre-leasing step

4.2.2 Developer Selection**Strengthen bid submission criteria to include community consultation plan**

India's OSW tender frameworks currently lack provisions for assessing community engagement in the pre-bid or technical evaluation stages. To ensure socially responsible development in Tamil Nadu, it is essential to require developers to submit detailed plans for community consultation, grievance redress, and local liaison structures as part of their bid documentation.

Table 4.6 outlines key steps, responsible agencies, and support partners to operationalise this requirement.

Table 4.6 Implementation Actions for Strengthening Community Consultation Requirement in Bid Submission

Led by Government Agencies	Key Inclusions in Bid Submissions
● MNRE: Refinement of policy and tender guidelines	● Past experience/qualification in community engagement ● Detailed Stakeholder Engagement Plan ● CLO/FLO hiring plan ● Grievance Redressal Plan (GRP)

Action Items:

MNRE / NIWE should require the developers to submit the following during bidding process

- Documentation of prior community engagement in coastal/marine contexts, including independent evaluation reports, MoUs or letters from communities, NGO endorsements, grievance logs from past projects
- A structured stakeholder engagement plan detailing
 - Strategy for engaging mapped stakeholders
 - Liaison approach with CLCLCs
 - Use of Tamil-language materials
 - Timeline for pre-construction and construction phase consultations
 - Formats for documentation and feedback tracking
- Include plan to hire CLOs and FLOs in each cluster
- GRP aligned with global best practices (e.g., IFC, IAIA, BOEM), including
 - Accessibility in Tamil (e.g., toll-free lines, WhatsApp, kiosks)
 - Escalation protocols
 - Timeline-bound response matrix
 - Anonymous grievance acceptance
 - Public communication of resolutions

Strengthen bid submission criteria to include community benefit plan

International best practices increasingly mandate developers to commit to long-term community benefit plans that go beyond one-time CSR activities. These include livelihood restoration, skill development, and infrastructure investments aligned with the project lifecycle. In India, current OSW bidding frameworks do not require such commitments, leaving a gap in ensuring sustained local benefits. To address this, the government should require developers to submit a Community Benefit Plan as part of their technical bid, outlining structured, time-bound, and monitored benefit creation strategies. This plan should clearly demonstrate local social value

through measures such as skills development, career pathways for NEETs (Not in Education, Employment, or Training) and apprentices, comprehensive engagement and community impact plans, positive environmental outcome initiatives, and volunteering programmes.

Additionally, livelihood restoration is a key requirement under IFC Performance Standard 5 (PS5) and directly influences the bankability of infrastructure projects like offshore wind in Tamil Nadu. PS5 mandates that when access to land or natural resources such as traditional fishing zones is restricted due to project activities, developers must implement measures to restore or improve the livelihoods of affected communities. This is particularly relevant for coastal fisherfolk whose access to fishing grounds may be impacted by offshore wind installations. The IFC PS 2012, Guidance Note 5 and 27 further clarifies that livelihood restoration must be designed in consultation with affected persons and tailored to the local context, noting: “Where people have access to resources taken for project purposes (e.g., marine resources), and such access is lost or restricted, livelihood restoration measures should be identified to ensure these resources are replaced or compensated for in a culturally appropriate manner”. Including a PS5-compliant Livelihood Restoration Plan with clear targets and monitoring not only ensures social safeguards are met but also aligns the project with ESG criteria expected by global investors and lenders.

Table 4.7 summarises the key actions, responsible entities, and support mechanisms needed to strengthen bid submission criteria to include community benefit plan.

Table 4.7 Implementation Actions for Integrating Community Benefit Plans

Led by Government Agencies	Key Inclusions in Bid Submissions
● MNRE (policy inclusion in bid guidelines)	● Community Benefit Plan submission ● Livelihood restoration commitments ● Skill development & capacity building ● Coastal infrastructure investment ● Monitoring & oversight mechanism

Action Items:

- MNRE / NIWE should include the developers to submit a 20–30 year roadmap aligned with project lifecycle, detailing:
 - Livelihood Restoration Commitments: Include strategies for marine livelihood transition and integration (e.g., fish processing, marine tourism, seaweed farming)
 - Skill Development & Capacity Building: Propose training in OSW related skills (e.g., O&M, GIS, safety protocols) with targets for local youth and women
 - Coastal Infrastructure Investment: Detail infrastructure proposals (e.g., jetties, cold chains, landing centres) with budget and timeline
 - Monitoring & Oversight Mechanism: Include third-party monitoring plan tied to project milestones, with annual reporting and community review forums
-

4.2.3 Permitting and Licensing

Strengthen lease protocol to include community consultation

India's Offshore Wind Energy Lease Rules, 2023 currently lack formal provisions for public consultation prior to lease notification or award. To align the lease protocols with global best practices, MNRE, in collaboration with the Government of Tamil Nadu, should introduce a state-level pre-lease consultation protocol.

This protocol should define minimum notice periods, consultation formats, and stakeholder inclusion mechanisms, leveraging the CLCLCs as focal points for coordination.

Table 4.8 outlines the key steps, responsible agencies, and enabling mechanisms to embed community consultation into the leasing process:

Table 4.8 Implementation Actions for Strengthening Pre-Lease Consultation Protocols

Led by Government Agencies	Key Inclusions in Lease Protocols
● MNRE & NIWE: Policy formulation, integration into Offshore Wind Energy Lease Rules	● Minimum notice periods ● Disclosure requirements ● Stakeholder engagement ● Feedback mechanism
Action Items: ● Draft a formal pre-lease consultation protocol modelled on UK's SoCC ● Require developers to undertake public consultation events with a minimum notification period and with a feedback period ● Require developers to publish draft lease zones with visual aids and Tamil-language summaries ● Require developers to conduct structured consultations with fishers, SHGs, panchayats, and marine users, coordinated by CLCLCs ● Require developers to record, publish, and respond to community feedback collected via CLCLCs	

Strengthen lease protocol to include compensation frameworks for fisheries impact

Current Indian OSW regulatory instruments, such as the MNRE Offshore Wind Strategy (2023) and SECI seabed lease/tender documents, require developers to obtain statutory clearances (ESIA, CRZ, etc.) but do not mandate submission of fisheries

compensation frameworks at the licensing or bid stage. This leaves compensation to be negotiated at a later phase (often post-impact), which risks delays, community opposition, and inconsistent treatment across projects. International best practices (e.g., Denmark) embeds compensation commitments within the licensing approval process, while US regulators (BOEM) secure enforceable mitigation measures through lease or COP (Construction & Operations Plan)/Site Assessment Plan (SAP) conditions. Establishing these requirements upfront (at bid or permitting stage) would provide a predictable, enforceable basis for redress in Tamil Nadu, and reduce conflict during construction. **Table 4.9** outlines the key steps, responsible agencies, and enabling mechanisms to embed compensation frameworks into the leasing process:

Table 4.9 Implementation Actions for Embedding Compensation Frameworks in Leasing Process

Led by Government Agencies	Key Inclusions in Lease Protocols
MNRE & NIWE: Policy formulation, integration into Offshore Wind Energy Lease Rules ● State Fisheries Department: Define local norms and coordinate with fishing cooperatives ● District Administration: Oversee implementation and grievance resolution	● Fisheries impact & dependency assessment ● Project compensation plan ● Compensation delivery mechanisms ● Governance & grievance mechanisms
Action Items: ● Government should require developers to submit the following during the lease process: ● Fisheries Impact & Dependency (FID) assessment with mapped users, baseline multi-year catch data and seasonal patterns. ● Project Compensation Plan with clear triggers, formulas (daily/weekly loss, gear repair/replacement, relocation support) and itemised budget included in bid/permit ● Compensation delivery mechanism (escrow/fund with independent trustee; or insured guarantee; or pre-recorded collective/individual agreements) plus interim payment rules. ● Governance & grievance arrangements (independent administration, audit, transparent reporting, Tamil language materials) ● Construction-phase measures as permit conditions (seasonal scheduling, guard vessels / safe transit corridors, advance notice, fast-track interim payments for verified immediate losses) ● Monitoring, adaptive management & exit criteria (6-monthly reviews, independent audits, public dashboards)	

Develop a centralised OSW portal for licensing transparency

To ensure transparency and accessibility in Tamil Nadu's OSW development, a centralised, public-facing portal (website) should be established under NIWE. This portal must consolidate lease zone maps, permitting status, EIA documentation, consultation schedules, and grievance redress dashboards. **Table 4.10** details the components, responsibilities, and support systems for building and maintaining this portal.

Table 4.10 Implementation Actions for Offshore Wind Licensing Transparency Portal

Led Government Agencies

- MNRE & NIWE: Portal ownership, content coordination, and public interface, technical content (maps, feasibility reports, EIA summaries)

Action Items:

- Design and host a centralised OSW portal with public access
- Upload lease zone maps, permitting status, EIA summaries, and consultation calendars
- Integrate multilingual grievance submission and tracking system
- Ensure mobile compatibility, Tamil-language interface, and kiosk access in coastal areas
- Include real-time updates on public hearings and feedback summaries
- Establish protocols for regular updates and community data integration

4.2.4 Construction and O&M

Mandate community liaison operations during construction and O&M phases

Drawing from global best practices, such as the UK's Environmental Management Plans and Denmark's local liaison mandates, Tamil Nadu should require developers to maintain active community liaison mechanisms during construction and O&M phases.

This includes maintaining CLOs and FLOs, maintaining grievance redress systems, and coordinating with CLCLCs to monitor impacts, share updates, and address concerns in real time. **Table 4.11** outlines how these mechanisms can be integrated, governed, and supported.

Table 4.11 Implementation Actions for Community Liaison During Construction and O&M

Led by Government Agencies

- MNRE & NIWE: Oversight of community liaison operations, compliance monitoring
- Developers: Implementation of liaison structures, grievance systems, and community coordination
- CLCLCs: Local engagement, feedback collection, and issue escalation
- District Fisheries Department: Verification of community coordination and support for FLO appointment

Action Items:

- Mandate appointment of CLOs and FLOs in each OSW cluster for the full duration of construction and O&M
- Require regular coordination meetings between developers and CLCLCs to share updates, address concerns, and monitor impacts
- Require developers to maintain active grievance channels (e.g., toll-free numbers, WhatsApp, kiosks) with Tamil-language access and defined response timelines
- Require developers to submit quarterly community engagement and grievance resolution reports
- Publicly display project updates and grievance outcomes at fish landing centres and coastal libraries

4.2.5 Decommissioning

Mandate public hearings (2 years prior) prior to decommissioning

India's Offshore Wind Energy Lease Rules require developers to submit a Decommissioning Plan at the lease stage but do not mandate public hearings or community-facing engagement during the decommissioning phase. Tamil Nadu can lead the way in embedding structured public hearings into the decommissioning process. These hearings should be held at least two years prior to decommissioning, conducted in local languages, and include all relevant stakeholders as consultees. A Tamil-language Decommissioning Impact Summary must be shared in advance to ensure informed participation.

Table 4.12 details the required actions, lead agencies, and enabling mechanisms to institutionalise community consultation during the decommissioning phase.

Table 4.12 Implementation Actions for Public Hearings Prior to Decommissioning**Led by Government Agencies**

- NIWE & MNRE: Protocol development, coordination of hearings, stakeholder inclusion
- MoEFCC: Oversight of environmental compliance and alignment with national frameworks
- Tamil Nadu Pollution Control Board (TNPCB): Facilitation of public hearings and environmental impact disclosures
- District Collectors: Local-level notification, logistics, and community mobilisation
- Developers: Preparation of impact summaries, facilitation of hearings, and feedback integration

Action Items:

- Draft a formal public hearing protocol for decommissioning modelled on UK/EU norms
- Mandate hearings at least two years prior to decommissioning initiation
- Publish decommissioning impact summary in Tamil with ecological and safety details
- Include SHGs, fishers, youth groups, and religious bodies as formal consultees
- Record, publish, and respond to community feedback in final Decommissioning Plan

Establish liability transfer protocols for decommissioning

While the Offshore Wind Energy Lease Rules 2023⁹⁸ require developers to complete decommissioning within two years of lease termination, they do not specify how liabilities, especially environmental and safety-related, should be transferred post-decommissioning. To address this, Tamil Nadu must establish a structured liability transfer protocol that includes post-decommissioning audits, and community verification of site restoration.

Table 4.13 outlines the key steps, responsible agencies, and enabling mechanisms to ensure safe and accountable handover during decommissioning.

98 MNRE. (2023). *Offshore Wind Energy Lease Rules, 2023*. Government of India. Retrieved from <https://thc.nic.in/Central%20Governmental%20Rules/Offshore%20Wind%20Energy%20Lease%20Rules%2C%202023.pdf>

Table 4.13 Implementation Actions For Liability Transfer Protocols**Led by Government Agencies**

- TNPCB: Conducting final environmental audits and verifying restoration
- SCZMA: Certifying ecological restoration and overseeing environmental compliance
- State Legal Advisory Cell: Drafting and enforcing liability transfer agreements
- Developers: Submitting closure documentation, financial guarantees, and public disclosures

Action Items:

- Draft liability transfer framework aligned with international best practices
- Conduct TNPCB-led environmental and safety audit with community observers
- Issue ecological restoration certificate before liability handover
- Publish liability transfer summary in Tamil for transparency and accountability
- Enforce liability handover through binding agreements and penalties for non-compliance

4.3 Developer Responsibilities

OSW development in Tamil Nadu is still at an early stage, but developers have a critical role to play in shaping how projects interact with coastal communities. While the government will set the regulatory framework, developers are expected to actively support community engagement, not just by meeting compliance requirements, but by being a good neighbour: building trust, communicating clearly, and staying involved throughout the project lifecycle.

To work effectively in Tamil Nadu, developers should begin by forming early partnerships with local NGOs, fisher groups, and community institutions. They should appoint dedicated CLO/FLOs who are familiar with local languages and livelihoods and ensure that project information is shared in formats that are both visual and accessible, especially in Tamil. Engagement should go beyond formal hearings, using culturally relevant formats like storytelling and local events.

Developers must also maintain consistent communication during construction and operations, and plan for fair, transparent compensation well before decommissioning.

Table 4.14 summarises key guidance for developers working in Tamil Nadu's OSW sector:

Table 4.41 Key Guidance for Developers

Phase	Activity	Description
Developer Selection	Establish partnerships with local NGOs and community institutions for long-term engagement	- Collaborate with NGOs such as: - MSSRF for fisher livelihood programmes - SDMRI for biodiversity programmes and studies - Engage SHGs and fisher cooperatives registered under the Tamil Nadu Fisheries Department, especially in districts like Cuddalore, Nagapattinam, and Thoothukudi
	Submit detailed stakeholder engagement plan and community benefit plan	- Submit detailed community consultation plans outlining timelines, engagement methods (e.g., public meetings, focus groups), and strategies for engaging with communities - Design grievance redress mechanisms that are accessible, multilingual, and culturally sensitive, with clear escalation pathways and regular reporting on resolution outcomes - Co-develop CBFs with local stakeholders, ensuring transparent governance, multi-year planning, and dedicated allocations for vulnerable groups
Permitting & Licensing	Appoint CLOs/FLOs to liaise with government-recognised CLCLCs and stakeholders	Recruit Tamil-speaking CLOs and FLOs with experience in coastal livelihoods. Officers should be trained in grievance handling and familiar with local marine calendars
	Conduct baseline study on fish stocks and demonstrate coexistence potential;	Conduct participatory fish stock assessments in partnership with CMFRI, SDMRI and local fisher unions. Focus on migratory routes, spawning zones, and

Phase	Activity	Description
	ensure monitoring framework is in place for entire project lifecycle	seasonal calendars, especially in the Gulf of Mannar and Palk Bay. Developers can potentially partner with and expand ongoing programmes such as CMFRI's "Marine Fish Stock Status of India" (annual stock assessment), the annual "Marine Fish Landings in India" survey series which provide structured sampling, trawl survey data, catch-effort tracking, and species-level assessments that can be deepened for project areas. ● Develop a long-term monitoring plan with inputs from CMFRI, local marine biologists, and fisher cooperatives. Include socio-economic indicators and ecological baselines relevant to Tamil Nadu's coastal blocks
	Share non-technical disclosures via local channels, disseminate accessible EIA/SIA summaries in Tamil and visual formats, use culturally resonant engagement formats (e.g., storytelling, local events)	● Share zone-level information in Tamil using posters, maps, and infographics. Distribute through Panchayat offices, fish landing centres, church/mosque boards, and SHG libraries. Include turbine layouts and safety zones ● Translate EIA/SIA summaries into Tamil and share via schools, gram sabhas, SHG workshops, and digital platforms. Use visual formats like 3D maps, animated videos, and WhatsApp voice notes ● Host storytelling evenings led by elder fishers, street plays at fish markets, booths at coastal festivals, and interactive sessions at temples and churches. Use intergenerational formats to engage both youth and elderly
Construction & O&M	Deploy CLOs/FLOs throughout construction & O&M Phase	● Retain CLOs/FLOs throughout the 35-40 years of Construction & O&M phase. Officers should manage stakeholder registers, mediate access issues (e.g., anchoring near turbines), and support benefit-creation mechanisms like fishery funds or training schemes

Phase	Activity	Description
	Launch real-time marine activity updates platform	Launch a Tamil Nadu OSW dashboard integrated with INCOIS's existing infrastructure. Provide real-time alerts on vessel movements, cable-laying, and safety zones via WhatsApp, SMS, and community radio
	Maintain informal engagement touchpoints continuously	Maintain monthly outreach at fish landing sites, SHG meetings, youth workshops, and school programmes. Use Tamil-language visuals and voice notes. Partner with local educators and SHG trainers for delivery
Decommissioning	Establish pre-agreed compensation dispute resolution framework	Develop a binding compensation framework in consultation with fisher unions, SHGs, and panchayats. Include eligibility criteria, grievance mechanisms, and update every 5-10 years

5 Conclusion



5 Conclusion

Tamil Nadu's OSW is at an early stage, allowing an opportunity to build a permitting and development model that is both socially inclusive and environmentally responsible. The state has an advantage of learning from mature international markets while designing its engagement architecture, policies, and community processes from the grass root level. This timing allows the state to avoid common global gaps in its approach such as insufficient consultations, fragmented benefit frameworks, and delayed grievance mechanisms, while tailoring solutions to its unique coastal and social contexts.

Global experience shows that meaningful community engagement must extend across the entire project lifecycle and be shared between government and developers.

- During the pre-approval and planning stages, early stakeholder mapping through MSP and transparent site identification lay the foundation for trust.
- In developer selection, governments can embed measurable community engagement and benefit-creation criteria, while developers can demonstrate their ability to sustain local partnerships and deliver social value.
- During the permitting and licensing stage, structured public participation, clear compensation frameworks, and the early appointment of CLO/FLOs can ensure accountability and representation.
- In the construction and O&M phases, continued engagement, accessible grievance mechanisms, and adaptive benefit programmes can help sustain long-term relationships with coastal communities.
- Finally, continued use of CLO/FLOs structured consultations and ecological restoration plans during decommissioning stages can go a long way to safeguarding both livelihoods and marine ecosystems.

Tamil Nadu's coastline presents unique complexities. Its fishing communities are diverse in culture, caste, and livelihoods and fishing practices. The community's aspirations span traditional fishers reliant on nearshore resources to youth seeking alternative livelihoods. Coastal areas also support multiple non fishing users such as traders, tourism workers, and women's self-help groups, making stakeholder dynamics complex. These communities require engagement processes that are not just procedural but deeply participatory and locally grounded.

If approached through shared responsibility between government, developers, and communities, Tamil Nadu can set a benchmark for inclusive OSW development. Transparent communication, fair compensation, and continuous dialogue can ensure that clean energy growth goes hand in hand with the protection of marine livelihoods, community wellbeing, and long-term coastal resilience.

Ocean Energy Pathway

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