KERALA'S LEGAL VOYAGE TOWARDS COMPREHENSIVE PORT DEVELOPMENT IN THE BLUE ECONOMY: AN ANALYSIS

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Introduction

Water is one of the major sources of existence without which no lives will survive in the world. In that the ocean covers 70 percent of Earth's surface. It contains about 1.35 billion cubic kilometres (324 million cubic miles) of water, which is about 97 percent of all the water on Earth.¹ India is having a vast coastline of approximately 7,500 kilometres which spreads across nine coastal states and two Union Territories (Andaman & Nicobar Islands and Lakshadweep). India has 12 major ports and 217 minor ports. These ports form the backbone of India's maritime trade and economic activities, facilitating the movement of goods, boosting regional economies, and enabling India's engagement with global trade. India is strategically positioned as a maritime nation, offering immense opportunities for leveraging the blue economy for its economic growth and maritime development. Among the states of India, Kerala is one of the states which has 590 km of coastline. Kerala boasts one major port at Cochin and 17 classified non-major ports². Available potential along Kerala's coastline can be used to support the shipping industry's and maritime trade's long-term expansion. This article explains about the Kerala's port development as one of the blue economy initiatives and effective legal remedies made by the state to the displacement of the coastal community which arose due to the port development.

Concept of Blue Economy

The blue economy indicates the sustainable use of ocean resources and preserving it for the future generation while exploiting the same, which means the phrase blue economy which is

¹ https://education.nationalgeographic.org/resource/all-about-the-ocean/

² Kerala Maritime Board Report.

frequently used interchangeably with sustainable ocean-based economy, refers to both the exploitation and preservation of the maritime environment. According to the World Bank, the blue economy is the sustainable use of ocean resources for economic growth, improved livelihoods and jobs, while preserving the health of ocean ecosystems.

Professor Gunter Pauli of the United Nations University (UNU) first proposed the Blue Economy economic theory in 1994 in order to address the challenges of global warming as well as the demands of future growth and prosperity. The idea was first presented in his book "The Blue Economy: 10 Years, 100 Innovations, 100 million Jobs". It is the sustainable use of ocean resources for better jobs and livelihoods, economic growth, and the health of the ocean ecosystem. It emphasizes how crucial it is to combine social inclusion with creative economic strategies in order to guarantee that the advantages of ocean resources are shared fairly and that marine ecosystems are preserved³.

Based on the notion that healthy marine ecosystems are more productive, the UN originally proposed the "blue economy" at a meeting in 2012⁴ and emphasized sustainable management. Scientific evidence supports this, demonstrating that greenhouse gasses are harming the world and that the earth's resources are finite. Furthermore, marine life is harmed by pollution, unsustainable fishing, habitat degradation, and other issues that are getting worse every day. The idea was centred on creating more environmentally friendly development models, such as engineering concepts that adhere to "no waste and no emissions." After the Rio+20, in the Third Earth Summit Conference in 2012, the Blue Economy gained more prominence. Among other things, the conference concentrated on extending the idea of the Green Economy to encompass the Blue Economy. As a guiding principle for global governance and the use of ocean resources, the United Nations Sustainable Development Goal aims to "conserve and sustainably use the oceans, seas, and marine resources for sustainable development."⁵ This gave the idea a boost. The Blue Economy has since been defined and framed differently by a number of member countries.

The various **sectors of blue economy** are Fisheries and Aquaculture, Maritime Transport, Coastal Tourism and Hospitality, Offshore Renewable Energy, Marine Biotechnology, Marine

³ August 13th, 2024 Posted on August 12, 2024, NEXT IAS Team, Blue Economy: Meaning, Objectives, Importance & More.

⁴ United Nations A/RES/66/288, General Assembly, 11 September 2012, sixty-sixth session Agenda item 19, Resolution adopted by the General Assembly on 27 July 2012, A 66/288. "The future we want" ⁵ SDG Goal 14.

and Coastal Infrastructure, Shipping and Ports, Ocean Exploration and Research, Underwater Mining, Marine Conservation and Biodiversity, Water Sports and Recreation, Desalination and Water Management, Marine Renewable Resources, Shipbuilding and Repair, Ocean Education and Training, Marine Pollution Control, Coastal Zone Management, Ocean Governance and Policy, Marine Insurance and Finance, Sustainable Seafood Production, Marine Technology and Innovation, Ports and Logistics Cruise Tourism.

Coastal Infrastructure development

Marine and coastal infrastructure i.e., the port development plays a major rule which significantly increases the economy of the country. India's extensive 7,500-kilometer coastline and reliance on marine trade for about 95% of its total trade volume make port development an essential part of the nation's economic infrastructure. Port development has many elements such as Spatial and cargo planning, regulatory processes, operational considerations, trade facilitation, governance structures, terminal leasing for public-private partnerships, financial modelling, and other elements. The government started the Sagarmala Programme in 2015 to update maritime infrastructure and meet increasing needs. The program's goals are to modernize ports, improve port connectivity, and establish industrial clusters close to the coast in order to support port-led development. In addition to modernizing existing ports, the construction of new greenfield ports, like Maharashtra's Vadhavan Port, increases India's ability to handle cargo and lowers logistical expenses. In order to draw private investment for port infrastructure, the government is also pushing Public-Private Partnerships (PPP) more and more. However, issues including limited capacity, inadequate connectivity in the hinterland, environmental concerns, and competition from nearby transshipment centres like Singapore and Colombo continue to exist. In order to position India as a worldwide maritime leader, recent initiatives under the Maritime India Vision 2030 centred on using cutting-edge technology, automation, and green measures.

In the verge of port development one of the Indian states which had made efforts for proper port development with sufficient resettlement and rehabilitation measures is Kerela. Kerala's port development is essential to the state's economic growth and improved access to international trade. The minor ports of Kerala are ports of Kerala are Manjeswaram, Kasaragod, Neeleswarem, Azhikkal, Kannur, Thalassery, Badagara, Beypore, Ponnani, Kodungalloor, Kottayam, Alleppy, Kayamkulam, Neendakara Kollam, Valiyathura Kovalam / Vizhinjam Port. Cochin Port, also known as Kochi, is a vital entry point for India's international trade, linking Southeast Asia, Europe, and Africa. It is ideally situated on the southwest coast. It provides cutting-edge infrastructure, such as container ports and contemporary warehousing facilities, and handles a wide range of goods, including machinery, seafood, spices, and petroleum products. The port's history dates back to the time of the spice trade, and in order to increase efficiency, it is currently being updated with automation and AI-driven technology⁶.

The Vizhinjam International Seaport, a deepwater port close to Thiruvananthapuram, is currently being developed with the goal of making Kerala a significant marine hub. Because of its advantageous location along major international shipping lanes, the port is able to draw big container ships, which lessens its need on transshipment ports like Colombo. It is anticipated to revolutionize Kerala's logistical and economic capacities⁷.

Other Minor Ports such as Kollam, Beypore, Azhikkal, and Alappuzha are some of the lesser ports along Kerala's coastline. These ports are being modernized to facilitate trade, tourism, and coastal shipping, even though they mostly handle domestic freight. Kerala's port expansion solves infrastructure constraints, increases jobs, and promotes industrial development.

Impacts of Port development

Modernisation being the need of the hour obviously it has negative impacts too. The particular region's coastal processes are disrupted by dredging activities for port expansion and the building of coastal structures. Changes in coastal processes can have a major effect on the shoreline. Therefore, understanding the coastal dynamics and projecting the anticipated results are crucial before beginning any coastal project. Even recently finished coastal constructions have shown undesirable effects on the coastline. Landfills and breakwaters have the potential to alter current patterns and result in water stagnation behind the constructions. If industrial or municipal wastewater enters a port, the eutrophication of the water which is brought on by effluents that contain nutritional salts may cause stagnant port water to deteriorate due to a sharp rise in phytoplankton and a fall in dissolved oxygen. It has detrimental effects on living things. Municipal sewage also brings coliform bacteria into the port and may cause unacceptable contamination of the harbour. The location of a port may cause changes in current patterns and littoral drifts due to alteration of wave refraction, diffraction and reflection.

⁶ Sumit Patel, Cochin Port Kerala: Gateway to India's Global Trade Connections.

⁷ Vishnu Varma, Vizhinjam port in Kerala and its potential in India's maritime trade.

Erosion or accretion in shore zones may result from changes in littoral drift. Altered currents or reflected waves may endanger small ships manoeuvring near structures which results in risk of human life. The creation of a port may cause changes in river flow and waterfront drainage. A port's placement may hasten the deposition of silt in standing water behind buildings and contaminate the seafloor.

Fishery resources are displaced and bottom habitat is destroyed when land is reclaimed from the sea. The location of a port may also change the terrestrial flora and wildlife. A decrease in fisheries resources is typically associated with a decrease in bottom biota, and on occasion, it is associated with an increase in unwanted species. Changes in aquatic biota, such as a drop in species and an increase in the number of one or two particular species, are typically the result of declining water quality. All types of aquatic biota could be destroyed if conditions worsen. Reduced plant life in an enclosed water's shore zone can aggravate water pollution and reduce the water's ability to aerate, Wetlands' mangroves are crucial for giving both terrestrial and aquatic biota a place to live and indirectly recovering water quality which results in damaging the environment and claims their right to clean environment⁸ among fishing community residing near the coast

Building or expanding a port often requires relocation of the local community, sometimes causing ethnic, cultural, tribal, or religious conflicts with local people. Industrialization and modernization may change the cultural traditions of the local community. Even during the port development's construction phase, the negative impacts of undesired erosion and accretion may begin. Unwanted sand shifting in the port construction region and excessive erosion are two examples of these negative impacts. Many a times, more than one project is executed in close proximity and the combined effect of all such developments with the proper time frames are required to be visualized to identify the likely erosion and accretion trends. Those who are displaced by development projects may endure unbearable pain that has multiple facets. For instance, those who are displaced experience social and financial instability as a result of moving to a new location and struggle to adapt to their new surroundings. More significantly, the relocation has an impact on their mental and psychological well-being since they have a strong emotional bond with their ancestral land, customs, culture, and way of life. Displacement brought on by development is becoming a widespread occurrence worldwide,

⁸ Art 21 of the Indian Constitution

but especially in developing nations.

The major issue of community displacement because of coastal erosion needs to be addressed and the state of Kerala has tackled the issue meticulously.

Community Displacement and legal framework

Right to development is a fundamental human right. The developmental projects in different fields are vital for the progress of the nation. At the same time these projects have tremendous impact on the environment as well as the common people. The most significant impact of developmental project is the displacement of population whose land is acquired for the projects. The people are uprooted from their present habitat and have to start their life elsewhere. Each year, millions of persons are forcibly displaced by development projects, whether dams, roads, reservoirs or oil, gas and mining projects. While such projects can bring enormous benefits to society, they also impose costs, which are often borne by its poorest and most marginalized members⁹. From independence India is developing rapidly because of industrialisation, modernisation. The port development is also one of the major developments India has faced which result in massive displacement of people where the people loss their culture, identity, traditional occupation, their own land, home which result in loss of their livelihood.

The central government has enacted coastal zone management rules CRZ 2019 to ensure livelihood security for fishing and other local communities living in coastal areas. with respect to the protection of coastal communities. The rules allow for the construction and reconstruction of houses for fisherfolk and other traditional communities between 200-500 meters from the High Tide Line (HTL) in CRZ-III zones while ensuring compliance with local norms. The Non development Zone in CRZ-III A areas has been reduced to 50 metres from 500 metres from the earlier 200 metres. This will provide the local communities accommodation, housing and infrastructure without forcing displacement.

CRZ mandates the state government to formulate coastal zone management plans that map traditional fishing villages and their infrastructure, such as fish drying yards and boat repair spaces to protect them being displaced during coastal development projects. The fisherfolk life remains unaffected by permitting them within the CRZ-IV zones for traditional fishing and

⁹ W. Courtland Robinson, Risks and Rights: The Causes, Consequences, and Challenges of Development-Induced Displacement (Feb. 2, 2013), http://www.internal- displacement.org/8025708F004CFA06/may03.pdf.

associated activities. The concern of local communities included in stakeholder consultations during the preparation and implementation of CZMPs¹⁰ to reduce risk of displacement.

In the face of swift coastal development, these clauses aim to preserve the rights and areas of traditional populations. However, concerns remain about implementation gaps and the potential for increased displacement due to relaxed restrictions and urbanization pressures. Environment Protection Act 1986 offers a legislative framework for environmental preservation and enhancement and the significance of this Act mandates Environmental Impact Assessments (EIA) for ports and other development projects in order to evaluate the social and environmental effects, including relocation. It also assures the preservation of ecologically delicate areas, which are frequently home to fishing populations, such mangroves and coastal wetlands.

Land Acquisition, Rehabilitation, and Resettlement (LARR) 2013 Act oversees land acquisition while guaranteeing equitable restitution and rehabilitation for displaced individuals. It offers restitution, relocation, and rehabilitation to people who have been uprooted by construction projects such as ports. It demands Social Impact Assessments (SIA) to assess how land acquisition affects the environment, livelihoods, and communities. Indian Ports Act, 1908 and Major Port Authorities Act, 2021 has an object of regulating the development and governance of major and non-major ports in India. Port authorities are required to comply with environmental and coastal regulations. The Major Port Authorities Act, 2021, emphasizes "sustainable development" in port expansion projects, but does not explicitly address displacement issues. It encourages Public-Private Partnerships (PPPs) for port infrastructure development, which can impact fishing communities without sufficient safeguards.

Forest Conservation Act, 1980 has an objective of legalizing the diversion of forest land for non-forest purposes and it also protects mangroves and forested coastal areas often used by fishing communities. Any diversion of forest land for port development requires approval from the government, ensuring environmental safeguards. Wildlife Protection Act, 1972 protects wildlife and ecologically sensitive areas, fishing grounds and ecosystems impacted by port development can be protected under this Act. Fishing communities rely on these areas for their livelihoods.

¹⁰ Coastal Zone Management plans

Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA) recognizes the rights of forest-dependent communities, including coastal fisherfolk, to land and resources. Traditional fishing communities residing in forest or ecologically sensitive zones can claim rights to land and resources, protecting them from displacement.

National Policy on Rehabilitation and Resettlement (NPRR), 2007 provides a policy framework for rehabilitating displaced persons. The act ensures housing, compensation, and alternative livelihoods for communities displaced by large infrastructure projects, including ports. The Biological Diversity Act, 2002 conserves biological resources and protects the rights of local communities. Port development that affects marine biodiversity or traditional fishing areas requires adherence to biodiversity conservation measures. National Fisheries Policy, 2020 (Draft) aims to safeguard the interests of fisherfolk and promote sustainable fisheries management. Recognizes the impact of coastal development on fishing communities. Proposes measures to address the displacement and loss of livelihoods of fisherfolk¹¹.

The port development has deliberately affected the livelihood of the fishing community residing nearby they have lost their traditional living area, right to fishing, cultural identity, occupation livelihood. The people in that villages are depending on fishing alone and it will be more complicated for them to adapt to other occupation and the Articles 14, 15(2), 19 1(g), 21, 39(a), (b), (c), 41, 43,47,48A,51A(g) which guarantees Right to livelihood and basic human rights of the Indian Constitution has been violated. The international arena has implicated the right to livelihood and basic human rights under Article 25(1), 23 of UDHR 1948, Article 6,11 of ICESR 1966, Work in Fishing Convention, 2007 (ILO Convention No. 188) in protecting the rights of fishermen.

Community Displacement in Kerala

Since 2000, Kerala has seen significant developments in its port infrastructure to boost trade, tourism, and economic growth. To support coastal shipping and tourism the Kollam Port (Thankassery Port) was revitalized and resurrected in 2014 even it was operating earlier. Though operational earlier, it was redeveloped and reopened in 2014 to support coastal shipping and tourism. Because the redevelopment of this port involves improving the existing

¹¹ https://dof.gov.in/acts-and-rules

infrastructure rather than acquiring significant amounts of land, it resulted in comparatively little displacement. However, because of port expansion, local small-scale fishermen have complained about having less access to supplies and fishing grounds.

Important investments have been made to update this historic port, focusing on coastal shipping and trade with the Lakshadweep Islands in Beypore Port (Kozhikode). Although there has not been much physical displacement as a result of Beypore Port's modernization, coastal communities have been economically displaced, especially because traditional fishing methods are now restricted and access to neighbouring waterways is no longer available.

In Azhikkal Port (Kannur) Development work has focused on enhancing its capacity for cargo movement and coastal shipping. It is being developed as a minor port with potential to boost trade in northern Kerala. A small number of families were impacted by the little displacement that came with the construction of Azhikkal Port. However, local settlements have been endangered by environmental issues, such as coastline erosion, which has forced some to move gradually. The Ponnani Port (Malappuram) has experienced phased development for cargo handling and aims to attract more investment in coastal shipping. Privatization efforts have also been started to enhance its efficiency. The privatization and development of Ponnani Port led to the displacement of some coastal families, but the impact has been less compared to Vizhinjam.

The major ports developed or modernized include Vizhinjam International Seaport (Thiruvananthapuram)which was started in 2015. This project, launched in 2015, aims to create a deep-water container transshipment terminal. Developed with Adani Ports, the port is strategically located close to international shipping routes¹².

The biggest displacement in Kerala's port development history has resulted from this project. Over 3,000 families, mostly from fishing communities, are thought to have been impacted either directly or indirectly by environmental effects, land acquisition, and loss of livelihoods.

¹² DEVELOPMENT OF PORTS IN KERALA STATE -FIVE NON MAJOR (MINOR) PORTS AT AZHEEKAL, BEYPORE, PONNANI, ALAPPUZHA AND KOLLAM AND MEGA PORT AT VIZHINJAMBy Abdul Saleem K https://www.academia.edu/109374347/DEVELOPMENT_OF_PORTS_IN_KERALA_STATE_FIVE_NON_MAJOR _MINOR_PORTS_AT_AZHEEKAL_BEYPORE_PONNANI_ALAPPUZHA_AND_KOLLAM_AND_MEGA_POR T_AT_VIZHINJAM

Numerous locals have demonstrated against insufficient restoration efforts, citing issues with housing, the loss of customary fishing grounds, and disturbance of their daily routines.

Effective legal measures by Kerala

People who work as fishermen are crucial to the state's economic stability. The goal of Fisherfolk Development is to create a fishing community that is fully developed in all areas, including social standing, health, education, and economic advancement. The several Fisherfolks development programs are designed to aid all men, women, youth, and children in the coastal belt's fishing community by enhancing their education, health, culture, economic standing, employment prospects, social awareness, and social action. Fishing Technical high schools, sports equipment and supplies, and instructional resources for fishery schools, including computers, audiovisual equipment, public address systems, and other accessories.

There are many schemes introduced by the Government for the upliftment of fisherfolks they are housing, medical entrance and coaching programmes, Civil service exam coaching, Bank Test Coaching, PSC, UPSC exam Coaching, Aksharasagaram, Adoption of children of diseased fisherman, educational assistance for fisherman children for post metric studies and Carrier guidance programmes.¹³

The displacement and livelihood problems brought on by port development projects have been addressed by the Kerala government through a number of initiatives. These actions seek to strike a balance between the wellbeing of impacted communities especially fishermen and the expansion of infrastructure. State has provided effective compensation for land acquisition, provision of modern fishing facilities, including ice plants and storage units, Improved access to alternative fishing areas. Constructing breakwaters to protect coastal regions. During Vizhinjam International Seaport expansion the government announced Rs. 81 crores for rehabilitating displaced fishing communities. Families were provided with financial compensation, new housing schemes, and promises of alternative livelihoods. Subsidized kerosene and free boat engines were offered to fishermen affected by the construction and loss of access to fishing zones. Monthly allowances of ₹5,500 were introduced for fishermen during the project period. Fishers impacted by coastal erosion were promised relocation to safer areas. State has organised Skill training initiatives to help displaced people transition to alternative

¹³ Government of Kerala, Department of Fisheries, https://fisheries.kerala.gov.in/en/fisherfolk

livelihoods, including jobs in port-related activities like logistics, security, and maintenance. Local youth were prioritized for employment in construction and port operations wherever possible. Setting up artificial reefs and fish aggregating devices to support marine biodiversity and maintain fishing opportunities. Improved access roads, cold storage, and other infrastructure to support fishermen's livelihoods. To mitigate environmental impacts, the government has implemented coastal erosion control measures, such as seawalls and breakwaters. Dredging and other construction activities are regulated to minimize damage to fishing grounds and marine ecosystems. Environmental monitoring programs have been established to assess long-term impacts of port development. The government has held public hearings and consultations with affected communities to address grievances, though the effectiveness of these dialogues has been questioned. Special committees were formed to mediate disputes between the government, developers, and local communities. For families displaced by projects like Vallarpadam and Vizhinjam, the government provided relocation schemes with new housing units in resettlement colonies. Efforts were made to ensure resettlement areas have access to basic facilities like drinking water, schools, and healthcare.¹⁴ Kerala following the Coastal regulation Zone Notification 2019 and Environmental Protection Act 1986. Kerala Coastal Zone Management Authority overseas the implementation of the central acts and monitors the resettlement and rehabilitation given to the fishermen. Kerala welfare Fund Board established under Kerala Fisherman Welfare Fund Act, 1985 which manages the welfare measures given to fishermen during crisis like natural disaster and also displacement. Kerala is ensuring equitable compensation for land acquired for developments such as ports by implementing the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act, 2013. When Punargeham Project¹⁵, introduced in 2020, the program aimed to relocate families living within 50 meters of the High Tide Line to safer areas, especially in erosion-prone regions. Fishermen were given new homes as part of the scheme. Temporary shelters for fishermen affected by port-related activities and natural calamities were also given. For fisherfolk, additional state-specific guidelines address compensation for loss of livelihood. In order to save traditional fishermen from competition from large trawlers, the Kerala Marine Fisheries Regulation Act, 1980, regulates fishing zones and ensures sustainable practices also safety precautions for fishermen impacted by natural

¹⁴ Resettling Vizhinjam fishers: Rs 81 crore approved, the rehabilitation of fishermen at Muttathara was one of the key offers made by the government as part of settling the Vizhinjam port stir. https://www.newindianexpress.com/states/kerala/2022/Dec/24/resettling-vizhinjam-fishers-rs-81-crore-approved-2531168.html

¹⁵ Kerala: Fishermen in Kozhikode seek revision of Punargeham rehabilitation scheme https://icsf.net/news

disasters and development projects are also covered. Environmental Impact Assessment Notification 2006, can conduct public consultations for large scale project where fisherfolk and other stakeholders can voice their concern. While people's opinion is not at all considered then the judiciary will step into the shoes of legislations. By hook or crook, the welfare of the people will be the ultimate motive. Fishing community has filed case before the court of law claiming their right to livelihood out of the vizhinjam port development under WP No 34157 of 2022 and the matter is still pending before the court¹⁶. Justice VG Arun made the observation while he was considering the plea moved by the fisherfolk community that there is no dispute with the fact that they (coastal fisherfolk) are stakeholders and it is was a very pitiable situation and the judge ordered the authorities to produce a copy of the report before the court. And the Victim Right Centre under KELSA was implemented Suo moto"¹⁷ thus the judiciary also played a vital role in giving justice to the affected fishermen while port development.

Conclusion

The development being the fundamental right and also the duty of the state to provide the technological advancement to its people there should be a harmonious construction while achieving the goal. The sustainable development being the need of the hour the state has to keep in mind the welfare of the public. Kerala has seen tremendous economic potential from port development, especially through initiatives like the Vizhinjam International Deepwater Seaport, but the livelihoods of fishing villages have also been put to the test. The need for effective and inclusive resettlement plans has been highlighted by displacement, environmental deterioration, and the disruption of traditional fishing activities. Kerala has made action to address these issues, but more work is required to guarantee development that is equal. The long-term viability of port development projects will depend on how well economic growth, environmental preservation, and the rights of underprivileged populations are balanced. To fully utilize Kerala's maritime potential and support India's blue economy, investments in sustainable practices and capacity expansion are essential by the same way the livelihood of the vulnerable people and the environment is also to be considered. Kerala has given incredible support to its people by providing alternative livelihood also the needed compensation. Though there are many grievances addressed through court with respect to people displacement because

¹⁶ Nirmala Joshy vs State of Kerala

¹⁷ [Vizhinjam Adani Port] No quarrel over fact that coastal fisherfolk are stakeholders: Kerala High Courthttps://www.barandbench.com/news/vizhinjam-adani-port-no-quarrel-coastal-fisherfolk-stakeholders-kerala-high-court

of port development, ultimately the welfare of the people has been considered and possible settlement has been made to the vulnerable people. Effectively balancing the environmental concern along with the protecting the rights of the marginalised people will determine the longterm success of the port development projects.

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