OCCUPATION OF THE COAST

BLUE ECONOMY IN INDIA

The Research Collective, the research unit of the Programme for Social Action (PSA), facilitates research around the theoretical framework and practical aspects of development, industry, sustainable alternatives, equitable growth, natural resources, community and people's rights. Cutting across subjects of economics, law, politics, environment and social sciences, the work bases itself on people's experiences and community perspectives. Our work aims to reflect ground realities, challenge detrimental growth paradigms and generate informed discussions on social, economic, political, environmental and cultural problems.

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ACKNOWLEDGMENTS

The idea of this publication began with a need to contextualise the global Blue Economy framework to India before the World Forum of Fisher Peoples' General Assembly in New Delhi in November, 2017. After the initial round of discussions on the concept note, it became evident that the various components of the Blue Economy had already been underway along the coastline, albeit in isolation and without them being clubbed under the umbrella of Blue Economy. Additionally, because the Blue Economy is an idea, its scope and its interpretations are immense, in turn expanding the scope of the publication as it attempts to incorporate the various components in this publication.We would like to acknowledge three aspects that made this publication possible. The first is the presence of a supportive environment at our work and homes, which made the long hours, the deliberations, the proof-readings and the feedback possible. The second is the presence of a large body of work on these subjects that allow publications such as this to assimilate their ideas and build on them. And the third is the fishing community and the voices of reason from there which grounded us and helped us keep our location to the study and our perspective in check. Thank you to all of you. We would specifically like to thank Lakshmi Premkumar for making the publication her own and friends at The Research Collective for their trust and encouragement. We are also quite glad to have found Shrujana, who designed the publication.

Our contributors, fourteen, make the largest part of the publication's body. Without their research and engagement this publication would have remained incomplete. We thank you for your long hours and we hope we have been able to do justice to your work. We would like to thank all resource supporters, especially Heinrich Boell Foundation (HBF), for their funding support that allowed a wide range of study areas to be combined in this publication.

We would also like to acknowledge here the lack of some critical issues that we were unable to address; aquaculture, security and militarisation, seabed mining, oil & natural gas extraction, trade and geopolitics in the Indian Ocean Region are all components that the Blue Economy framework seeks to drive. We also hope that collaborative processes such as this will further build the community of people researching and working in the interests of coastal ecology and traditional fish-workers in the future. This publication is the start of a review of the Blue Economy in India and is hence prone to falter at places. Please do help us undertake that critical review into the future by writing to us with your feedback and thoughts. Any errors in the publication are entirely ours.

- Ishita and Siddharth

FOREWORD

The National Fishworkers' Forum (NFF) is happy to note that The Research Collective, Programme for Social Action has put in great efforts, in such a short time, to bring out this publication that attempts to delve into the more recent phenomenon of Blue Revolution and especially Sagarmala in India.

We are truly reminded of the days when the traditional fishing community, during the early days of our mass mobilisation, used the effective solidarity and support by a host of intellectually active organisations and individuals– especially in relevant matters of research and documentation. We are happy that today, despite the fact that many organisations hesitate in associating with ground work among communities like the fishworkers, there are some who are still vouching by the community's needs and are willing to be co-travellers with independent, non-political formations like the NFF.

From the days of the Indo-Norwegian Project (INP) reform in the marine and fisheries sector (1950s), the Indian fishworker was always taken for granted, both by the state and the academia! We were told to give up our traditional kattamarans and embrace mechanised boats, to go deeper, to be able to sail better, to catch more fish. We were told that the weatherman knows better, while in hindsight, many at times the weatherman was not even around to tell us what to do in crisis. We were advised to take money as compensation for the land and the sea that got grabbed from us for multiple public and private projects. We were told to exploit Mother Sea, which we traditionally feared and worshipped. Afterall, when the whole world was running for more profits under a capitalist pursuit, how could you exclude the fishers, whose sustenance depended on a better catch of fish?

Today, again, we are told that we must learn better to exploit the sea and repurpose the use the coastal land. The Blue Revolution is going to fundamentally change India's development vision, we are told.
We are told that unless our fishing equipment is upgraded and fishing methods adapted for use in the deep-sea, there is no scope of fishing! The Prime Minister, who hails from Gujarat, is vouching by the Gujarat model of coastal and industrial development and says Sagarmala is the future. Gujarat boasts of a port every 23 kms and has effectively no fish today, all the way upto EEZ. But still, we are told, and are told...

This is the reason we felt it important to seek the assistance of people who would guide their research and documentation from the community's perspective. At a time when the Global Fishers Assembly (WFFP GA-7) is taking place in New Delhi, India, it is indeed an honour for us to have such a work available for our deliberations and discussions. Sagarmala, which is a model of port and infrastructure-led industrial expansion is the classic example of Ocean and Coast grabbing and will be discussed by WFFP delegates. From Enayam, Vizhinjam, Ennore, Mundra and different other parts of India, the fishworkers are already strongly resisting this model. We hope this compilation and the other studies being done are information weapons for us to fight exploitation and misinformation, better.

Narendra Patil
Chairperson, NFF

T. Peter
General Secretary, NFF

BLUE REVOLUTION

RADICAL GAME CHANGER OR YET ANOTHER JUMLA?

The Cabinet Committee on Economic Affairs (CCEA), Government of India, gave its approval for implementation of an 'umbrella scheme' for integrated development and management of fisheries in December 2015. It was announced that the Blue Revolution would be implemented at an outlay of 3000 Crore Rupees for a period of five years. The scheme was aimed at covering multi-dimensional activities for development and management of inland fisheries, aquaculture and marine fisheries and was to be implemented exclusively through the National Fisheries Development Board (NFDB). The government clubbed it with the larger economic growth rate and stated that the Blue Revolution will contribute towards ensuring a sustained annual growth rate of 6% to 8%.

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"Recognising the prospective future and potential in the fisheries sector, central government has envisaged a programme named 'Blue Revolution' to unlock the unused talent through an integrated approach..."
- India Infoline (12/03/2017)

'The Blue Revolution was launched with an aim to create an integrated and holistic development and management of fisheries in the country and to improve the socio-economic conditions of fisherfolk and fish farmers"...
- The Indian Express (28/05/2017)

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As announced, a key focus of the scheme was on increasing productivity and production from aquaculture, and fisheries resources, both inland and marine—keeping in view the overall sustainability, bio-security and environmental concerns. However, the CCEA statement did make an interesting observation, which attracted our attention and matched with the Prime Minister's own statement at Somnath Temple, where he pitched 'Blue Revolution' into the popular lingo—by indirectly addressing the fisher constituency of an election-year Gujarat and India. This was about how the Blue Revolution provides for "suitable convergence and linkages with the Sagarmala Project of the Ministry of Shipping..."

'Blue Economy', 'Blue Revolution' and 'Sagarmala', are among some of the buzzwords the country has been subjected to in recent times. On the one hand, the Prime Minister of India, Mr. Narendra Modi, has been giving pronouncements at international and national summits as to how his government intends to rebuild the lives of fishworkers and coastal communities through such an integrated approach. On the other, we witness a host of statements and declarations from varied government sources and Financial Institutions that make tall claims about how the backbone of Indian economy is going to be shifted away from the resource rich regions of Central Eastern India to coastal India—through the Blue Revolution.

The logic derived for Sagarmala and the Blue Revolution is based from the Vajpayee Government's original plan of a comprehensive coastal infrastructure-development model. It was thought of as a measure to help avoid duplication in planning between the different states and the central government. It was also aimed at being an economic plan that would uplift the coastal people into a new era of industrial transformation. Sagarmala, in essence, is aimed at coastline conversion into industrial and economic zones, with a focus on export related manufacturing.

The fact that future industrial expansion near the coastline is at the heart of the 'visionary' planning of Sagarmala is very disheartening. A growth model that demands constant industrial expansion in eroding and climate-vulnerable coastal areas reflects the lack of comprehension of the real threats of climate disasters. Rather worryingly, the constitutional federal structure of the country is bound to be a casualty in the implementation of the Sagarmala Programme too. What is certain is that the Blue Revolution in India is not without conflict once the phase of rhetoric and the one-sided proclamations passes.

The Research Collective (TRC) of PSA, when first faced with a request from National Fishworkers' Forum (NFF), the fishworkers' movement, who demanded that TRC undertake a detailed study to analyse and share information regarding the whole Blue Revolution and Sagarmala, was perplexed—to say the least! The coordinating editors of this study and dossier, Ishita Sharma and Siddharth Chakravarty, struggled their way in the initial days to get real information about any of these coinages. More difficult was financial information, which in hindsight appears to be an obvious mischief of the Government at the highest levels.

When plans worth 8 lakh crore from administrators are put in place, the onus of being democratic and transparent is on them. The process of financial accountability and democratic consent is on them. Listening to demands from the very people who vote a government to power is on them. When they make tall promises, one must cross check the real-life implications of those promises, analyse the viability of such promises and hold those in power accountable to the promises they make to people.

"Occupation of the Coast- Blue Economy in India" undertakes that process. It attempts to unearth and decipher a host of information that gives a better and transparent picture of these fascinating coinages. This effort is to tell our people, what is behind the politics and economics of Blue Economy, Blue Revolution and Sagarmala. This compilation attempts to address our policy makers as well, in trying to advocate for rationality amidst chaotic, aggressive growth—to make the argument that people have a voice in a democracy and it must count beyond the sound of the coins in your piggy bank. We are grateful to all the contributors of this compilation. We really hope their efforts will help bring together voices that prompt policymaking that take India down the road of people-centric, participatory democracy and away from greater disaster!

Vijayan MJ General Secretary, PSA	Aashima Subberwal Coordinator, TRC-PSA

08 November 2017

THE BLUE ECONOMY IN INDIA

The Blue Economy is here. Prime Minister Modi describes it as part of Security and Growth for All in the Region (SAGAR)[1]. The Federation of Indian Chambers of Commerce and Industry (FICCI) defines it as "encompass(ing) a wide range of economic activities pertaining to sustainable development of resources and assets in the oceans, related rivers, water bodies and coastal regions"[2]. The Indian Ocean Rim Association (IORA) points out that it will "contribute to food security; poverty alleviation; the mitigation of and resilience to the impacts of climate change; enhanced trade and investment; enhanced maritime connectivity; enhanced diversification; job creation and socio-economic growth[3]".

The Blue Economy involves economic activity that engages with the various components of the oceans. Given the immensity (components and geographical scope) of the oceans, it is not surprising that a vast array of actors-state actors, transnational corporations, conservation organisations, philanthropic foundations, policy think-tanks etc.-locate themselves strategically in the framework to seize the opportunity the Blue Economy affords. By combining economic growth, environmental protection and livelihoods security under its framework, it creates an optimistic narrative of harmony and hope. Ports exist alongside villages. Coastal industrial zones prosper alongside biodiversity hotspots. Industrial fishing vessels ply in the deep oceans. Tourists flock to the beaches and the coasts become a site of perpetual recreation.

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"They are not necessarily stuck in the past but a dynamic sector undergoing constant change: what they were is not what they are, and certainly not what they might become [4]".

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The coastal areas of India straddle both, land and water and within them contain multitudes of people and history. 40,56,213 people from the traditional fishing community[5] live along India's immense 8118-kilometre coastline. That averages to 1 village every 2 kilometres of the coastline, not including the islands. Traditional fishworkers are defined as those who are fishers by birth and for whom fishing is their ancestral occupation. Fishing then is not just an occupation, but also the fulcrum around which the communities' identities, cultures, daily lives and sustenance revolves. 86.6% of India's total fish catch potential is available in waters of 100 meters depth . That number becomes 92% if extended to 200 meters in depth[6]. These waters, well within reach of the fishing communities, have fostered generations of local food systems and afforded nourishing food to coastal communities. But resource-intensive industrial development on the coast, exacerbated in the last three decades, has infringed upon the space of the natural resource-dependent fishing communities, while the outcome of the development has infringed upon the resource in itself.

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[1]http://www.narendramodi.in/pm-modi-at-the-international-fleet-review-2016-in-visakhapatnam-andhra-pradesh-413019
[2]http://ficci.in/spdocument/20896/Blue-Economy-Vision-2025.pdf
[3]http://www.iora.net/default.aspx
[4]Svein Jentoft, Walking the talk: Implementing the international voluntary guidelines of small scale fishers
[5] Marine Fisheries Census, 2010 survey
[6]Report on the working group for revalidating the potential of Fishery Resources in the Indian EEZ, Fishery Survey of India (FSI)

As the Blue Economy gets underway, this publication re-visits various aspects of coastal development and weaves together a narrative of their impacts on the fishing communities.

Chapter one titled **'Regulate'** studies the laws pertaining to the coastal lands and the ocean resources in tandem since they govern the space (land), the resource (ocean) and the access (land to ocean) vital to the fishing communities. The first paper 'Losing Ground' traces the coastal regulations in India, starting with the Coastal Regulation Zone Notification, 1991 and its evolution through subsequent versions. The second paper 'High Tides of Privatisation' traces fisheries laws through the fishworkers' movements and the state's response over a 7-decade period. Both pieces set a historical context of coastal and resource governance before pointing to some of the key concerns with their current transformation, through the draft Marine Coastal Regulation Zone, 2017 and the National Policy of Marine Fisheries, 2017. This chapter sets the context for the privatisation of land and seascapes – intrinsic and essential to the onward march of the Blue Economy.

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"To me the Blue chakra or wheel in India's national flag represents the potential of Blue Revolution or the Ocean Economy. That is how central the ocean economy is to us."
- PM Modi[7]

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Leading the Blue Economy (used interchangeable with Ocean Economy, Blue Revolution) in India is the current government's flagship programme, Sagarmala. The Sagarmala programme launched in 2015 was identified as one of the key threats by the National Fishworkers Forum during a meeting that took place in Delhi in November, 2016. Chapter two titled **'Restructure'** results from the urgency of demystifying the programme and its impacts on both inland and marine resources. 'Sagarmala: Myth or Reality?' starts with a FAQ, followed by a critique and financial analysis of the programme. The two papers which follow this explore the key thrust areas of Sagarmala, Public-Private Partnership (PPP) port models and the creation of inland waterways.

'The Vizhinjam Port: Dream or Disaster' analyses the economic viability of the controversial port project in Kerala and challenges its stated outcomes. 'National Inland Waterways' explores the creation of large scale, commercial shipping and navigation systems in 111 waterways across 138 water systems in the country. Pointing to how development and infrastructure projects need to be based on concrete feasibility studies, it concludes that the individual projects needs more research and impact assessments. This is followed by 'Contesting Claims' which looks at the impacts that 30 years of coastal industrialisation have had on fishworkers in the state of Gujarat. It exposes the drastic changes in livelihoods and the ensuing geographical and occupational migration of fishworkers because of a Sagarmala-styled programme that was initiated in Gujarat in the 1990s. In the absence of corroborating data in the public realm, these studies substantiate the critique of the Sagarmala programme and act as indicators of the ecological and social disruptions that will ensue under the port-led development model.

Chapter three titled **'Reality'** brings together a series of contributions on the environmental and livelihood aspects of the Blue Economy. They look at the economic processes that are transforming the historical and symbiotic relationship of the fishing communities with the coast. 'Retreat is never an Option' points to how the shift from traditional to mechanised fishing has destroyed the livelihoods of women fishworkers. It also addresses misogyny and patriarchy that women face from the state, within the community and within organised resistance.

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[7]Excerpts from Prime Minister Narendra Modi's speech at the commissioning of the 'Barracuda' in Mauritius on March 12, 2015.

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"Their hope lies in being brought out of nature and into the market so that they can return to nature as competent conservationists [8]".

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The next three contributions look at issues within the framework of conservation. The paper 'Marine Protected Areas' looks at the idea of protected areas in the age of the Blue Economy and calls for a shift in the existing legal and administrative framework of governing Marine Protected Areas in India. 'The Chennai Statement' revisits a declaration by a coalition of fishers, scientists and environmentalists from 2009 and indicates how the management of marine areas are becoming a threat to traditional fishing communities. It asserts that conservation strategies must operate on the basis of addressing issues of equity and unfavourable power relations in developmental interventions[9]. In continuation 'What is Blue Carbon?' introduces the new kid on the block in the marine conservation world and questions it's primarily rationale that "the biggest obstacle to effective conservation is that nature has not yet been adequately commodified". In line with the Chennai Statement, it asserts that solutions must be based on the recognition that indigenous and traditional knowledge and cultures work with nature.

'Lobbying to Dispossess' spells out the relationship of coastal tourism to livelihood and environmental instability and argues that tourism policies in India are neither sensitive to nor inclusive of local communities.

The publication ends with an article on the 'Andaman and Nicobar Islands' exploring the growing concerns of securitisation and militarisation in the Blue Economy framework and how these narratives make us perceive the islands.

On an average, 60% of India's coastal zone areas are under rural/ semi-built up urban areas, implying that the coastal commons and the fishing communities' hutments occupy the largest slice of coastal real-estate[10]. Considering that policy and the state machinery are constantly attempting to reconstruct geographies and redefine identities control to this land for greater private investment is central to the country's continuing neoliberal capitalist expansion[11]. The varied contributions in this publication come together to frame concerns and raise questions on the nature of development that already exists, and that is being envisioned under the Blue Economy, along India's coastline.

For one, there is a push towards the monetisation of land where the collectively governed commons are brought under private property and market regimes. When the idea of port-led development complemented with industrial areas leads the idea of Blue Economy in India, acquiring large tracts of coastal land becomes central to the framework. This is evident in coastal economic zones as part of Sagarmala, industrial and manufacturing clusters and special economic zones in Gujarat or Special Tourism Areas under the National Tourism Policy of 1992. Accompanying this is the financialisation of natural resources for conservation- through Marine Protected Areas and Blue Carbon- where nature is thought of as being a capital to generate rent for humankind. Both aim to reduce land and seascape

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[8]http://www.conservationandsociety.org/article.asp?issn=0972-4923;year=2007;volume=5;issue=4;spage=432;epage=449;aulast=Igoe
[9]"Social Dimensions of Marine Protected Area Implementation in India: Do Fishing Communities Benefit?" workshop held in Chennai in January, 2009.
[10]Coastal Action Network - An Update (Published and circulated in World Social Forum at Mumbai in 2004).
[11]Six theses on India's Land Question, From Primitive Accumulation to Regimes of Dispossession. http://www.epw.in/journal/2015/22/special-articles/primitive-accumulation-regimes-dispossession.html

to very narrow definitions of economic value, a necessary by-product of neoliberalism.

Second, this process of enclosures requires a whole range of political and democratic dilutions and adjustments to complete the attempted re-distribution. The role of the state recedes to being that of a broker which through successive rounds of exclusions and enclosures redistributes coastal lands. Accompanying this is a shift in the practices of governance where para-statal bodies and project implementation agencies are handed over functions of planning and regulation, thereby reducing the functioning space of local self- government bodies (panchayats).

Third, these processes are accompanied by the dilution of environmental laws and clearances such as in the case of inland waterways and the tourism industry. The slow and steady erosion of the coastal regulation zone notification and environmental impact assessment circumvents existing due processes when acquiring land.

Fourth, the developmental and policy interventions assume that coastal lands are empty lands devoid of existing livelihoods and associated civil, political, economic, social and cultural interactions. While coastal industrialisation in the form of aquaculture, tourism and infrastructure negate the existence of place-specific thriving local livelihoods, the National Policy on Marine Fisheries, 2017 attempts to transform the current shore-line fishing activity into a deep-sea harbour-based fishery.

Within the Blue Economy, the State has decided what the future of the fishing community should be; without consultation and without seeking to strengthen existing practices that conserve the ecology. Read together, the different papers indicate that the coastal lands are only useful in so far as they are industrialised and act as launch pads for a new age of ocean-based exploitation. Fishworkers are only important in so far as they contribute to the GDP earnings of the country. And nature is only conserved when it becomes a tradeable commodity devoid of people.

Perhaps then, the biggest threat from the Blue Economy is its attempt to sanitise dispossession. By co-opting the demands of the fishing communities for coastal protection and food sovereignty, it pitches these as business opportunities for International Financial Institutions, Trans and Multi-national Corporations. However, for the livelihoods at stake the Blue Economy is merely ushering a new regime of dispossession, this time disguised under the combined global narratives of ocean health, sustainable development, poverty alleviation and food security.

BLUE GROWTH: SAVIOUR OR OCEAN GRABBING?*

MADS BARBESGAARD

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INTRODUCTION

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"Talk of the ocean as a new economic frontier, of a new phase of industrialisation of the seas, will become widespread in 2016."

– The Economist, 2015

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In the past years, a wide array of actors have become interested and engaged in maritime and coastal policies. In this process, new types of alliances converging around specific ideas about how maritime and coastal resources should be organised (to whose benefit, on which terms and to what end?) are being formed. In the spring of last year, actors with seemingly unaligned interests spanning The Nature Conservancy, Goldman Sachs, Lockheed Martin and the World Bank took part in an Executive Roundtable discussion in New York on how to "Invest in the Blue Economy". A few months later at the World Ocean Summit (WOS) organised by the Economist Intelligence Unit in Portugal these actors were supplemented by the likes of Credit Suisse, WWF and government officials from across the world under the heading "Blue Growth". In the run-up to the WOS, luring reports like 'The Ocean Prosperity Roadmap' were put out giving guidance to decision-makers on marine and coastal resource management strategies that purportedly would "maximise economic, conservation and societal benefit". With the coinciding claim from WWF that the ocean's 'economic powerhouse' could be valued at USD 24 trillion, such strategies were deemed crucial. And finally, in November 2015 in Singapore, special invitees and the members of the World Ocean Council – The International Business Alliance for Corporate Ocean Responsibility – were gathered at the triennial Sustainable Ocean Summit under the title 'Sustainable Development and Growing the Blue Economy – the next 50 years'. The striking feature at all of these elite summits and conferences is how a wide-range of actors are converging on the necessity of implementing policies across scales that are conducive to the 'blue economy' following a reasoning that this will create win-win-win situations in the pursuit of 'sustainable development' entailing pro-poor, conservation-sensitive (blue) growth.

The concept of a blue economy came out of the Rio +20 conference simultaneous with the rise of the 'green economy'. However, in contrast to how scholars within the critical agrarian studies tradition have leapt over the concept of the green economy, there are relatively few studies that have engaged explicitly with the blue economy and the policies deemed conducive to it from a critical perspective.

*This section is slightly adapted from the introduction to the following conference paper: https://www.iss.nl/fileadmin/ASSETS/iss/Research_and_projects/Research_networks/ICAS/5-ICAS_CP_Barbesgaard.pdf

THEORETICAL LENS

Neoliberal conservation, primitive accumulation and appropriation

In the past years, a wealth of literature has been devoted to the analysis of the governing of human interactions with the physical environment under neoliberal capitalism. While initially seen through the prism of neoliberalisation of nature (see Heynen et al. 2007; Castree 2008), with the ascendance of the green economy and ever-more market-based mechanisms to conservation and climate change the rubric of 'green-grabbing' (Fairhead et al. 2012) and its inversion of 'grabbing green' (Corson et al.2 2013) have been put forward. Especially the latter two, draw on rich historical debates centering on shifts in control of natural resources dating back to Marx's elucidation of the necessary prerequisite to capitalism: primitive accumulation. With reference to enclosures of agricultural lands in Britain from the 14th through the 18th century, Marx explains how dramatic changes to the property-regimes had the dual purpose of "converting the land into a merely commercial commodity" and simultaneously "extending the supply of free and rightless proletarians driven from their land." (Marx 1990, 885) Drawing on Harvey (2003), a range of scholars have argued that far from merely being an historical transition period, primitive accumulation is a continuing process that, if anything, has been accentuated in recent years – perhaps most popularly known through the acceleration of 'landgrabbing' (Borras et al. 2011). This has in turn reinvigorated debates on drivers of such processes, as the 'theoretical busyness' (Bernstein 2014) surrounding Harvey's concept of accumulation by dispossession suggests (see Hall 2012 for overview). In the green-grabbing frame, conservation initiatives have become a key force driving primitive accumulation (Buscher 2009, Kelly 2011, Fairhead et al. 2012). Although, as these authors stress, the form that primitive accumulation through conservation takes is very different from that initially described by Marx, as conservation initiatives involve taking nature out of production – as opposed to bringing them in through the initial enclosures described by Marx. Despite this different form, through the concept of appropriation Fairhead et al. explain how similar mechanisms and consequences unfold: "'Appropriation' implies the transfer of ownership, use rights and control over resources that were once publicly or privately owned - or not even the subject of ownership - from the poor (or everyone including the poor) in to the hands of the powerful." (2012, 238)

Privatisation happens through both the classical form of primitive accumulation as described by Marx, whereby resources, property etc. is transferred from the state to private owners. As Fairhead et al., note in the context of natural resources this may also initially involve 'securing rights for the poor'. However, they stress that even if such processes initially mean allocation of resources to marginalised groups, this opens up for successive rounds of appropriation in many other ways through: outright violence, delegitimizing of the new resource-owners through new legislation and, crucially, 'through the market'. Despite underlying neoclassical assumptions of privatisation opening up for smooth market exchanges that by necessity benefit both buyers and sellers with no costs to society (McAfee 2012) such processes thereby actually involve massive shifts in and struggles over social relations, socio-economic (in)equality and power more broadly (Fairhead et al. 2012).

Related to this, processes of financialisation involving "the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies" (Epstein 2005, 3) have characterised the past years. As Fairhead et al. stress, this has also meant bringing evermore aspects of society into financial circulation –

including nature. Through a myriad of different market-based mechanisms nature is parceled into tradable commodities that can be speculated on and 'new' nature is actively produced and made tradable e.g. through emissions trading schemes. This means that the governing of nature also becomes subject to the fluctuations of financial markets. A prerequisite to this is that our whole understanding of 'nature' is changed: "ontologies of ecology are being replaced by those of 'natural capital' and 'ecosystem services'." (Fairhead et al. 2012, 244) As Sikor has explained in relation to the rise of the ecosystem services framework, this means that rather than nature having an intrinsic value, "nature is a stock that provides a flow of services to people" (Sikor 2013, 3). From this perspective then, in tune with neoclassical reasoning, the key is to ensure a correct and extensive valuation of these services, so they can be incorporated into the cost-benefit accounting considerations of individuals, governments, transnational corporations etc. (McAfee 2012).

This process of valuation was initially pushed forward already in the 1980s by environmental economists, but with the rise of the Ecosystem Services Framework this has become an all-encompassing endeavor meaning the valuation of all ecosystem services from biological diversity to carbon storage (Sikor 2013). While initially, the valuation was seen as a means to ensure widespread support for conservation, with the rise of market-based environmentalism, the translation into policy of this approach has been the creation of markets for the different elements of the valued ecosystems. Through these markets, individuals, governments, transnational corporations etc. can pay for the identified ecosystem services.

The underlying assumption is that payments for these services will ensure the conservation of the ecosystems that the services are derived from. Furthermore, proponents argue that this mobilises new funding opportunities for conservation initiatives in the Global South in a time of diminishing funds for such conservation and development projects through Official Development Aid (McAfee 2015). However, with these markets, new avenues of financialisation also arise through the creation of "'fictitious conservation' intimately linked to the circulation of capital in new economic systems" (Fairhead et al. 2012, 244). Furthermore, this process of valuation disregards use-value and converts everything into commensurable exchange value where one service can be traded off for another depending on where the most value can be attained (McAfee 2012). Crucially, in terms of appropriation processes, Corson et al. note how financialisation "create value, produce new natures and landscapes as commodities and empower certain actors to accumulate from these newly created values." (2012, 269)

The third aspect involves the managing and manipulation of crises. Fairhead et al. highlight how the construction and perpetuation of a sense of crisis plays out through global environmental governance. Alluding to Klein's 'disaster capitalism' (2007) and the related unfolding of shock-doctrine, whereby often controversial neoliberalisation processes are legitimated with reference to responding to crises, environmental crisis is perhaps the biggest one facing humanity. And, as Harvey stresses, responses to such crisis necessarily involve accumulation for some and dispossession for others – or more directly: "the environmental crisis is providing a speculative frontier for finance capitalists." (Corson et al. 2012, 269) Related to this, these crises also legitimate bringing in new actors, as states are increasingly cast as being incapable of solving 'global' issues requiring increased participation of non-state actors. This has resulted in actors that are much more "embedded in capitalist networks" (Fairhead et al. 2012, 239) having a firm place in global policy processes, and in turn, greatly impacting on resource control and access.

Finally, Harvey stresses how, states under neoliberalism become increasingly oriented toward attracting foreign direct investment, i.e. specifically actors with the capital to invest whereas all others are overlooked and/or lose out. This means states implementing all manner of market-friendly policies that create the appropriate 'enabling environment' for investors, which, for Harvey, amounts to a class-project involving the immense redistribution of wealth and income from the majority to a political and economic elite minority (Harvey 2005).

Central in all of these dimensions is the assumption in market-based neoliberal conservation that "once property rights are established and transaction costs are minimised, voluntary trade in environmental goods and bads will produce optimal, least-cost outcomes with little or no need for state involvement." (McAfee 2012, 109) This implies that win-win-win outcomes with benefits on all fronts spanning corporate investors, the local communities, biodiversity, national economies etc., are possible if only the right technocratic policies are put in place. By extension this also means side-stepping intrinsically political questions with reference to effective management through economic rationality informed by cutting-edge ecological science, in turn making the transition to the 'green economy' conflict-free as long as the "invisible hand of the market is guided by [neutral] scientific expertise" (McAfee 2015, n.p.).

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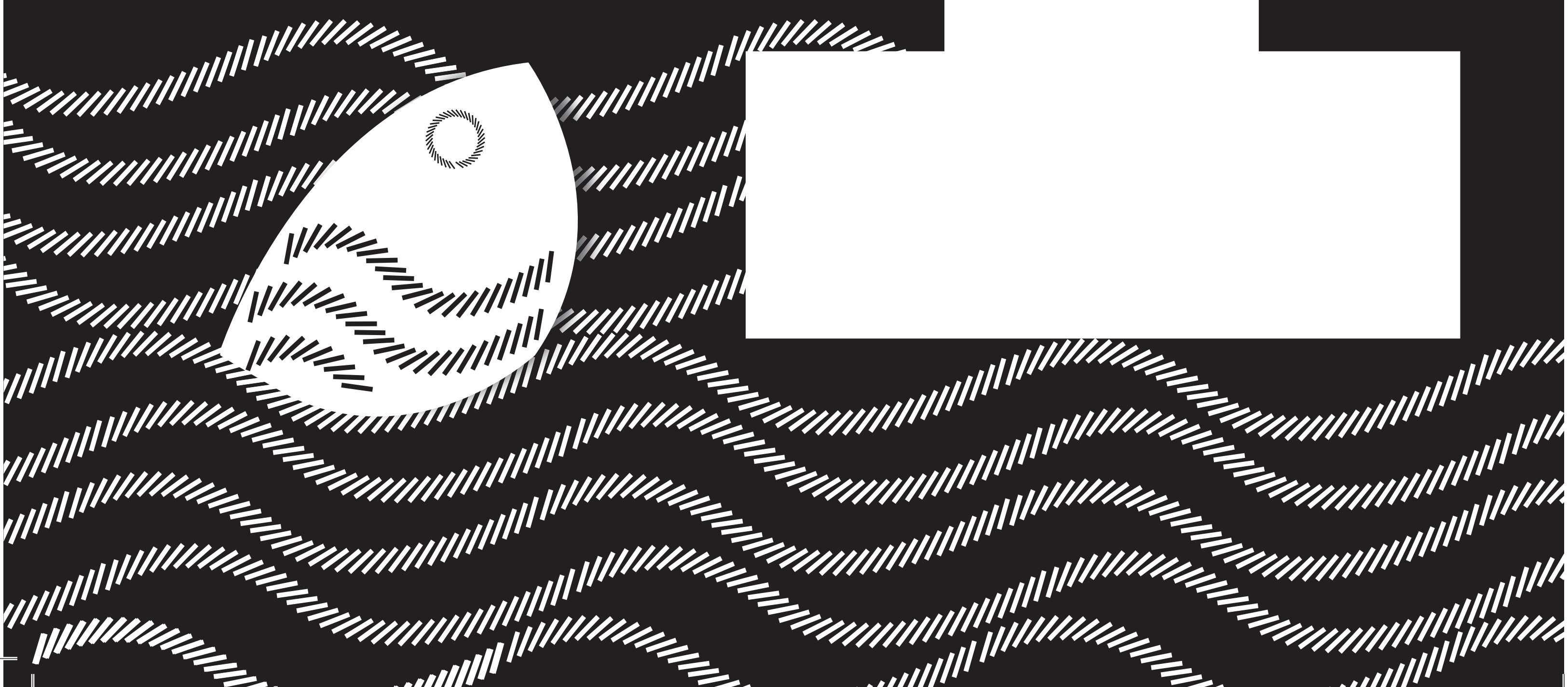
CH 1: REGULATE



LOSING GROUND

JESU RETHINAM and SIDDHARTH CHAKRAVARTY

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INTRODUCTION

Historically, the coasts have been considered as the commons- lands without private or state ownership-where access, rights and control to the resources were embedded in social norms and traditional law. The fishing communities have accessed the coast, as commons- without claims to ownership- other than a few tracts of land allocated permanently for hutments. The coasts are vital for a variety of activities of the fishing communities such as landing, sorting, drying, smoking and curing of fish, for the mending of nets/fishing gear and for the parking of their boats. Many fishing communities fish from the shore itself using an age-old system of shore nets[1]. As such, access to the coasts is of utmost importance to the fishing communities for fulfilling coastal food sovereignty since their existence nurtures and sustains unique social, cultural and ecological landscapes.

The commons refer to different kinds of wealth, spaces, values, social relations, systems, processes and activities that “belong to” communities, societies and in some cases all of us, that are actively claimed, (re)created, protected and restored for collective good and purpose, for present and future generations[2].

[1]Coast based systems of fishing. Shore seining, stake fishing, etc.
[2]Manahan M, Guttal S. (2017, June 22) Why the Commons Matter. Retrieved from https://focusweb.org/content/why-commons-matter

The idea that the coasts need protection came up in 1981, when the then Prime Minister Indira Gandhi asked the Ministry of Environment and Forests (MoEF) to prepare environmental guidelines for the protection of beaches and coastal areas. **This initiated the process of declaring the coastal areas as Regulation Zones and for the first time in history the coasts were divided into zones for different uses, ushering in a race to claim these zones by a range of new users.** The commons began transforming and the struggle for the fishing communities since has been to maintain their legitimacy as natural resource-based livelihood communities in the presence of fiercely competitive resource-intensive industrial actors.

The way the coastal commons are utilised and governed affects the small scale fishers. As stated in the preamble to the Voluntary Guidelines for Small Scale Fishers, "Small-scale fishing communities also commonly suffer from unequal power relations (...). there is increasingly high interdependence or competition between small-scale fisheries and other sectors. These other sectors can often have stronger political or economic influence, and they include: tourism, aquaculture, agriculture, energy, mining, industry and infrastructure developments".

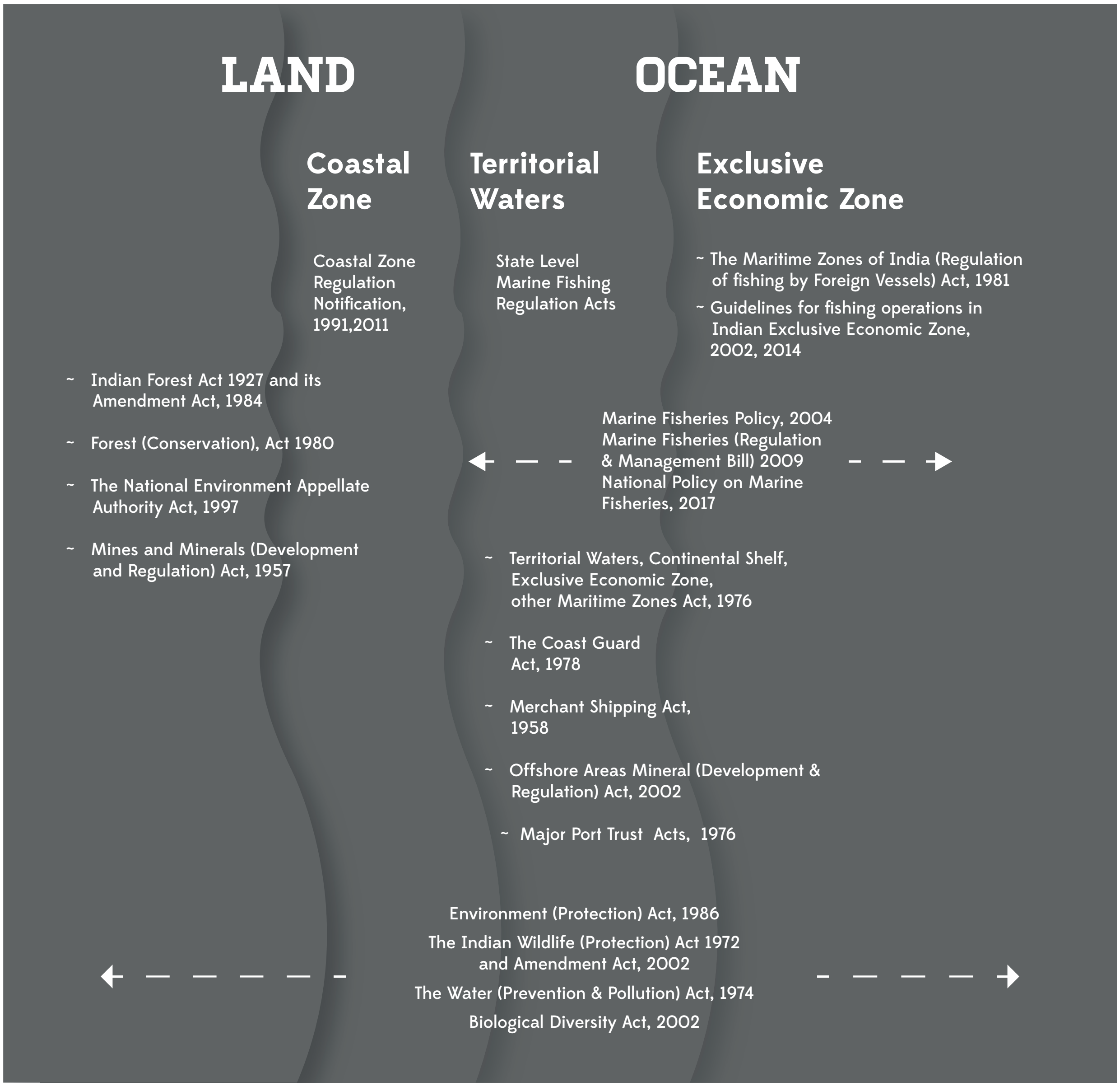
Successive coastal regulation laws have tipped the claim to the coasts away from the fishing communities. With India's growth model situated firmly in a globalised world, oriented towards a manufacturing-centered model, the inability of the Indian state to mediate between private, state and common ownership will undoubtedly see a further intensification of fishworkers' struggles. Under the additional combined narratives of conservation, sustainable development and multi user-rights, new policies are ensuring that the communities are losing ground, both physically and in the public domain.

COASTAL AREAS:

'Interface or transition zone where part of land is affected by its proximity to the sea and where part of the ocean is affected by its proximity to land....an area in which processes depending on the interaction between land and sea are most intense[3]'.

The coast is an area where a unique confluence of two major ecosystems exist, namely, marine (the sea, ocean etc.) and terrestrial (land) ecosystems. The coast comprises a narrow strip of coastal lowlands and vast areas of coastal waters, the boundaries of which are defined by the ebb and flow of the tides. It occupies a mere 10% of the oceans but accounts for more than half of the oceans' biological productivity and before industrial expansion in the 1960s began, almost all the global catch of fish. Dynamic interactions of the marine, terrestrial and atmospheric environments are evident in the coastal zone, as a result of which many of the planet's most complex and diverse ecosystems are in coastal areas. The coastal zone is characterised by a rich diversity of natural habitats, such as coastal and mangrove forests, coral reefs, beaches, continental shelf areas, sand dunes, grasslands, marsh lands, rocky shores, flood plains, salt marshes, estuaries, mudflats, wetlands, seagrass beds and seaweed areas. A variety of natural resources exist including corals, cowrie shells, seaweeds and algae, fish and other aquatic life, plants and minerals. Coastal habitats and resources are vital because of their role in stabilising the shorelines, and in protecting coastal areas and habitations from cyclones, tidal waves and other natural disasters.

[3]Report of the United Nations conference on Environment and Development. Agenda 21 - chapter 17. (Rio de Janeiro, 1992, June 3-14). Retrieved October 29, 2017, from http://www.un.org/depts/los/consultative_process/documents/A21-Ch17.htm



The importance of protecting these fragile coastal zones is recognised by various international conventions, most prominently by the UN Convention on the Law of the Sea (UN-CLOS). Article 207 states that **"States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from the land-based sources, including rivers, estuaries, pipelines, and out fall structures, taking into account. Internally, agreed rules, standards and recommended practices and procedures".** The United Nations Conference on Environment and Development (UNCED) via Agenda 21 recognises the coastal environment as an essential component of the global life-support system it sets forth rights and obligations of states and provides the international basis upon which to pursue the protection and sustainable development of marine and coastal areas at the national, regional and global levels.The evolution of regulations to protect India's coastal areas is located within a combination of international instruments and a symbiotic community-coast context.

COASTAL REGULATION ZONES

The Kanyakumari yatra in March, 1989 by the National Fishworkers Forum (NFF) was one of the first steps by the fishing community demanding a set of laws to protect the coastal areas of India. With the slogan to **"Protect Water/Protect Life"** 25,000 NFF members marched along the entire coastline of India, their march culminating in Kanyakumari, Tamil Nadu. During the march they mapped the dispossession of the fishing community by industrial projects. While the resistance march ended at Kanyakumari with bullets being fired at the fishworkers, it brought the issues of coastal conservation and the relationship of natural resources to traditional communities to national attention. This in turn gave momentum to the movement to protect India's coasts via a specific legislation.

On February 19, 1991 the Coastal Regulation Zone notification was issued under the Environmental Protection Act, 1986. This five page document demarcated the Coastal Regulation Zones (I-IV) between the High Tide Line and 500 meters to landward and **"imposed restrictions on setting up and the expansion of industries, operations or processes [4]"**. This was based on the recognition that different areas require different levels of protections. The CRZ notification did not ban any activities but instead introduced a list of prohibited and permitted activities.

Definitions: As per CRZ Notification, 1991

HIGH TIDE LINE (HTL): High Tide Line means line on the land up to which the highest line reaches during the spring tide

LOW TIDE LINE (LTL): Low Tide Line is the lowest point on the shore that is not covered by water at low tide

INTER TIDAL ZONE: Land area between High Tide Line and Low Tide Line

COASTAL REGULATION ZONE: The Coastal stretches of seas, bays, estuaries, creeks, rivers and backwaters which are influenced by tidal action (in the landward side) up to 500 meters from the High Tide Line (HTL) and the land between the Low Tide Line (LTL) and the HTL

[4] Coastal Regulation Zone, 1991

COASTAL REGULATION ZONE, 1991

Area Covered	~	• HTL to 500 meters inland • Area between HTL and LTL
CRZ I	~	• Ecologically Sensitive Areas • Area between HTL and LTL
CRZ II	~	Substantially built-up areas upto/close to the shore in municipal and urban areas
CRZ III	~	Other than I and II relatively undisturbed Coastal zones in rural areas not substantially built-up areas upto/close to the shore in municipal and urban areas
CRZ IV	~	Coastal stretches of Andaman, Nicobar, Lakshwadeep, Small Islands except those designated as I, II, III

From the fishing communities' point of view, the coastal area classification and development regulations in CRZ-I and the CRZ-III zones were of utmost importance. While retaining their secure access regimes to the inter-tidal zones and the oceans via curtailing new development in the CRZ-I zone, the notification gave exclusive settlement rights to coastal communities and traditional users of the coast in the CRZ-III zone. However, under the condition of a clearance from the MoEF, the regulation allowed for the setting up of industrial activities that needed waterfront and foreshore facilities. Since the CRZ-II zone consisted of already developed areas where further development was economically unviable and geographically constrained, the CRZ-III zone became the most sought after commercially viable land mass within the coastal zones.

SOME EXAMPLES OF COASTAL AREA OCCUPIED BY THE DIFFERENT COASTAL REGULATION ZONES

	KERALA	KARNATAKA	ANDHRA PRADESH
Total Area In Sq. Km	498.579	274.04	3674.73
CRZ I	88.006	54.98	1121.66
CRZ II	68.784	15.70	27.41
CRZ III	341.825	172.71	2526.6
CRZ III %	**68.5**	**62.7**	**68.7**

A TRAIL OF DILUTIONS

Making use of the newly enacted regulation, Jeganathan, a veteran Gandhian associated with the fisher struggle, approached the Supreme Court in 1994 for relief against the construction of industrial aquaculture farms. In a landmark judgement dated December 11, 1996 the Supreme Court ordered the demolition of all aquaculture prawn farms within 500 meters of the High Tide Line and 1000 meters of the High Tide line in Chilika lake, Orissa and Pulicat lake, Tamil Nadu respectively. This judgement, while hailed as being a landmark one for the fishing communities, sent a clear signal to the new resource-intensive users that the notification in its current scope would immensely restrict the industrial expansion in the coastal zones.

ROUND 1: 1991-2005

The Ministry of Environment and Forests (MoEF) issued the formal definition of the High Tide Line-the crux of the CRZ notification-7 years after the notification was issued. In the absence of specificity in the methodology and authority for the marking of the HTL, the identification of a zone and its related violation became extremely hard. The progress on the Coastal Zone Management Plan (CZMP)-a vital tool to implement and monitor the CRZ Notification at the state level- remains a plan 26 years in the making. State governments were unwilling or unable to implement the CRZ notification, thus allowing violations in the coastal zones to be committed. The economic and political lobbying by the industrial actors ensured that until 2005 the CRZ notification had been amended 21 times with each amendment diluting the protection the notification offered.

On the April 18, 1996, the Supreme Court ordered all the state governments to submit a Coastal Zone Management Plan (CZMP) based on the CRZ Notification, 1991 and asked the coastal states to implement the CRZ notification[5]. This was in response to writ petition (Indian Council for Environment. Vs Union Of India and Ors.,) demanding the enforcement of CRZ notification 1991. The Coastal Zone Management Authorities (CZMA), both at the national (NCZMA) and state (SCZMA), were constituted as per the directions of this judgement. Their most significant function is examining all proposals for projects in the coastal zones before the relevant agencies such as the Central Government or the State Governments/ Administrations of Union Territories approve these projects. Additionally, they:

- Enquire into cases of alleged violations and issue directions under the Environment (Protection) Act, 1986.
- Are responsible for identifying ecologically sensitive and economically important areas along the coastal stretches and formulating specific management plans for these areas.

CZMAs function with insufficient funds and infrastructure. Even after repeated demands, there has been no action taken to equip them to work effectively. **In October, 2017 the NCZMA, the apex coordinating agency for coastal regulation, was reconstituted for a period of 2 years. The environmental regulation body was filled with bureaucrats with no representation from experts, civil society or fishermen groups.**

ROUND 2: 2005-2014

With the amendments that had been made to the CRZ notification of 1991, it was clear that the state was unable to protect the coastline through the notification's 'prohibit and permit' approach. Post the tsunami in 2004, the coastal areas of India underwent widespread destruction and a renewed attempt was made to review the CRZ notification. The MoEF set up an Expert Committee under the chairmanship of Prof.M.S. Swaminathan to review the CRZ notification, including the amendments. The aim was to suggest the future management of coastal areas in the changing economic environment. Based on the recommendations of the expert committee, MoEF proposed a new framework for coastal zone management– the Coastal Management Zone (CMZ) Notification, 2008.

Right from the start, the fishing communities were opposed to the notification on grounds of the absence of participatory planning, lack of consent and the capture of regulatory process. Due to a nationwide movement against the notification, the draft notification was finally made public on the May 13, 2008. The MoEF appointed a committee which held 35 public consultations across the coastal states to draw wider views of multiple stakeholders, particularly of the fishing communities on the CMZ notification.

Based on this engagement the feedback received[6] was that there was:

- Widespread opposition to the draft CMZ Notification. The draft Notification was rejected by fisherfolks' organisations as well as environmental NGOs.

[5]A response to writ petition (Indian Council for Environment. Vs Union Of India and Ors.,) demanding the enforcement of CRZ notification 1991.
[6]Report of the Expert Committee on the draft Coastal Management Zone (CMZ) notification constituted by the Ministry of Environment and Forests under the Chairmanship of Prof. M. S. Swaminathan (July 16, 2009) Final Frontier. Agenda to protect the ecosystem and habitat of India's coast for conservation and livelihood security

- Widespread concern that the scientific management regime proposed in the draft Notification was open to misinterpretation and abuse.
- Concern regarding the change in the prohibitory regime, which may lead to wide spread commercial activities and urbanisation on the coast.
- Suggestions that the livelihood rights of fisherfolk were ignored in the draft Notification[6].

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"The coast belongs to the fisher community by tradition and they must not be alienated from their homeland."

- Kerala Government in response to the CMZ notification, 2008[6].

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As an outcome to the public hearings and comments process, the committee recommended that the CMZ notification, 2008 be allowed to lapse and instead incorporate amendments as recommended in the existing CRZ Notification, 1991 for better coastal management. Between 2009 and 2011, a series of exchanges between the MoEF and the fishing communities, along with an active campaigning by the National Fishworkers Forum and allied groups, led to the new Coastal Regulation Zone Notification, 2011 being issued.

While the 2011 regulation was issued with a view to 'ensure livelihood security to the fisher communities and other local communities, living in the coastal areas…' the fishworkers' representatives remained critical of the new CRZ notification. They argued that it was a compromised document that did not go far enough to institutionalise and protect their rights[7].

Notably, the 2011 notification codified all the 25 amendments that had been made to the 1991 Notification, most of which had only served to dilute it. In both the CRZ-I and the CRZ-III zones a host of permitted activities were introduced which affected the access and the livelihood spaces of the communities.

[7]Vivekanandan, V. Decoding the Final Frontier: a close look at the Recommendations of the Swaminathan Committee II. Retrieved from http://www.ceeindia.org/cee/pdf_files/Decoding_Final_Frontier.pdf

CRZ III	CRZ, 1991	CRZ, 2011
HTL to 200 meters	No Development Zone	No Development Zone
Exceptions	None	1. Area under port limits 2. Repairs/Reconstruction of existing authorised structure 3. Agriculture, horticulture, gardens, pasture, parks, play field, and forestry 4. Projects relating to Department of Atomic Energy 5. Mining of rare minerals 6. Salt manufacture from seawater 7. Facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II 8. Facilities for regasification of liquefied natural gas subject to conditions as mentioned in subparagraph (ii) of paragraph 3; 9. Facilities for generating power by non-conventional energy sources; 10. Foreshore facilities for desalination plants and associated facilities, weather radars 11. Construction of dispensaries, schools, public rain shelter, community toilets, bridges, roads, provision of facilities for water supply, drainage, sewerage, crematoria, cemeteries and electric sub-station which are required for the local inhabitants may be permitted on a case to case basis by CZMA 12. Construction of units or auxiliary thereto for domestic sewage, treatment and disposal with the prior approval of the concerned Pollution Control Board or Committee; 13. Facilities required for local fishing communities such as fish drying yards, auction halls, net mending yards, traditional boat building yards, ice plant, ice crushing units, fish curing facilities and the like 14. Development of green field airport already permitted only at Navi Mumbai
200 to 500 meters	Construction/Re-construction/Alteration under ambit of traditional rights and customary uses	1. Development of vacant plot in designated areas for construction of hotels or beach resorts 2. Facilities for receipt and storage of petroleum products and liquefied natural gas 3. Facilities for regasification of liquefied natural gas 4. Storage of non-hazardous cargo such as, edible oil, fertilizers, food grain in notified ports 5. Foreshore facilities for desalination plants and associated facilities 6. Facilities for generating power by non-conventional energy sources 7. Construction under ambit of traditional rights and customary uses 8. Construction of public use amenities and civic infrastructure 9. Reconstruction or alteration of existing authorised building

THE INTEGRATED COASTAL ZONE MANAGEMENT PROJECT: AN OCEAN GRABBING TOOL

The beginnings of the ICZM can be traced back to the United Nations Conference in Environment and Development in 1992 when it was recommended that integrated environmental management and planning were necessary to mitigate conflicts over coastal spaces and resources. The scientific methods used to demarcate the area to be protected vary, with countries using, exclusively or in combination with each other, methods such as zoning (setting aside different zones as appropriate to different activities, such as flood control, fishing, habitat protection, recreation, sand mining, and industrial use); vulnerability maps (based on the rate of erosion and flooding, or vulnerability to natural disasters); and setback zones (which identify a distance from the shore, based on the extent of risk faced by an area, beyond which activities of different kinds, such as housing, tourism, and polluting industries, must be located). International agencies (the World Bank, the United Nations Environment Programme (UNEP), the Organisation for Economic Co-operation and Development (OECD) all increasingly emphasise Integrated Coastal Zone Management (ICZM) (Post and Lundin 1996)-the integration of development, livelihood, habitation, and conservation policies-which was first elaborated in Chapter 17 of the 1992 Agenda 21, and several countries have adopted this in principle[8].

The World Bank recommends the Guidelines for Integrated Coastal Zone Management as a **“conceptual presentation of how the ICZM may be applied to contribute to the environmentally sustainable development”[9].** The Indian approach to the CMZ, 2008 was reflective of the emerging trend of balancing economic development along the coastline using the guidelines of an Integrated Coastal Zone Management approach.

While the process of public engagement for a new coastal zone regulation was underway, on June 15, 2010 the Government of India borrowed an amount of US$ 221.96 Million[10] from the World Bank for a project called Integrated Coastal Zone Management (ICZM). The entire work of the ICZM Project is coordinated by the Society for Integrated Coastal Management (SICOM) established as a body under the Ministry of Environment, Forest and Climate Change (MoEFCC). A National Centre for Sustainable Coastal Management (NCSCM) has been established within the campus of Anna University, Chennai and acts as the collaborating body to the regional centres. The objectives of the program are to build institutional capacity for the implementation of a comprehensive coastal management in the country and to pilot an integrated coastal zone management approach in the states of Gujarat, Orissa and West Bengal. It includes hazard mapping of the national coastline, livelihood improvement of coastal communities, and coastal ecosystem conservation[11]. Once the pilot program in the three states successfully concludes at the end of 2017, the program will enter its next phase of implementing the pilot program across the remaining states and union territories.

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[8]Sundar A. (2014) From Regulation to Management and Back Again: Exploring Governance Shifts in India’s Coastal Zone. Retrieved from http://www.conservationandsociety.org/article.asp?Issn=0972-4923;year=2014;volume=12;issue=4;spage=364;epage=375;aulast=Sundar
[9]Post and Lundin 1996
[10]INR 1400 crore approx. basis exchange rate on October 26, 2017
[11]SICOM website: http://www.sicommoef.in/

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There is no mention within the document establishing SICOM (MoEF 2010) of its relationship, or that of the ICZM Project more generally, to the CRZ Notification, or the range of civil society organisations, and fishing and coastal communities that might be seen as 'stakeholders' in this process and there has been little community consultation by the Programme or the new agency to establish such a relationship.

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The reasons for implementing an ICZM stem from of a need to relieve anthropogenic pressures on coastal ecosystem, to reduce coastal vulnerability to climate change and to generate rent from the economic value of the coastal resources. The outputs are largely pitched in line with the need to **'….serve common objectives….(is) designed to demonstrate integrated management of ecological, economic and social concerns'[12].** Thus, in line with neoliberal market economics of the Blue Economy environmental protection, economic growth and livelihood security are assumed to be mutually inclusive and therefore mutually solvable within this framework. Further by citing the state's lack in capacity to regulate multiple users of the coastline, private capital (World Bank) takes over the public policy spaces (GoI) under a 'need' to build capacity, effectively creating a lobbying mechanism. The Integrated Coastal Zone Management essentially influences the state to strengthen the institutional framework in order to assimilate fragmented and sectoral policies to ensure 'balanced development'.

The first step in the wrong direction is the clubbing of all the users of the coastline (resource-intensive and resource-based) as the coastal stakeholders. The second step is attributing coastal degradation to all coastal stakeholders equally. The third is attempting to bring all the coastal stakeholders and the coastal services into the market. In this process, the ICZM acts essentially as an Ocean Grabbing tool.

- **Ocean grabbing refers to Dispossession or appropriation of use, control or access to ocean space or resources from prior resource users, rights holders or inhabitants**
- **Ocean grabbing occurs through in-appropriate governance processes and might employ acts that undermine human security or livelihoods or produce impacts that impair social-ecological wellbeing**
- **Ocean grabbing can be perpetrated by public institutions or private interests**

REDRAWING THE HIGH TIDE LINE: TIDAL ERROR[13]

Soon after the Supreme Court intervened in 1996, the MoEF conditionally approved the Coastal Zone Management Plans (CZMP). However, none of these CZMPs and the scrutiny and approval processes they went through are in the public domain. After the CRZ notification, 2011 was issued the High tide line (HTL) and the Low tide line (LTL) demarcation was to be carried out by a MoEF authorised agency which would form the basis of developing a new CZMP under the guidelines of the new notification. In 2014, a High Level Committee was constituted to review various environmental laws and bring them in line with development priorities of the Government. Among other things, the TSR Subramanian committee noted that, "The MoEFCC must appoint a technical agency to demarcate a new unambiguous High Tide line that can be used to facilitate development". The Committee's report was rejected by the Parliamentary Standing

[12] World Bank (2010, May 14), Integrated Coastal Zone Management Plan Project Approval Document, http://www.sicommoef.in/Data/Sites/1/docs/pad.pdf

[13] The Coastal Resource Centre (2017, April) Tidal Error- How NCSCM Got Tamil Nadu's High Tide Line Wrong.

Committee citing that some recommendations "would result in an unacceptable dilution of the existing legal and policy architecture established to protect our environment". In 2016, the Shailesh Nayak Committee set up to review the CRZ Notification, 2011 repeated the recommendation of the previous Committee calling for a new High-Tide Line and delegated the responsibility of demarcating the High Tide line for the entire Indian coast to National Centre for Sustainable Coastal Management (NCSCM). This was to be done using Ortho Imageries of the Survey of India. In its meeting of May 24, 2016 the National Coastal Zone Management Authority noted that the demarcation of the HTL by NCSCM was complete and that the same had been submitted to the MoEFCC for 8 states.

CASE STUDY: TAMIL NADU

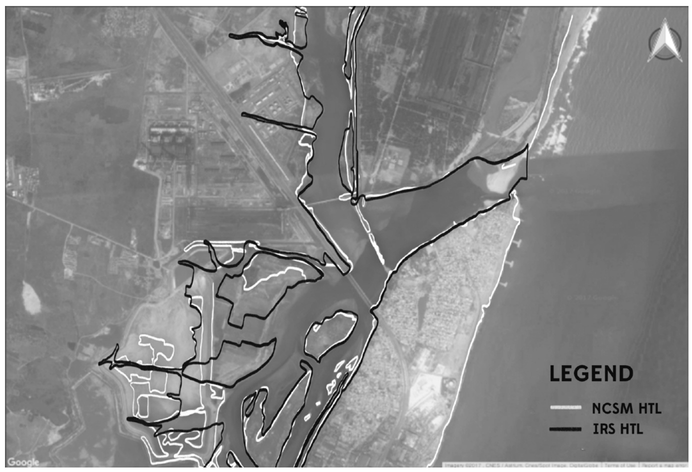
In 2013, a draft CZMP for Tamil Nadu was prepared using the HTL demarcated by the Institute of Remote Sensing, Anna University. This was then released for public consultation. However, the 2013 Draft CZMP was never finalised for a variety of reasons. The newly marked HTL data, as carried out by the NCSCM for Tamil Nadu, was obtained by the Coastal Resource Centre, Chennai through the Right to Information request and it was subjected to an empirical evidence finding exercise. The following observations were made:

- Example 1: Yedaiyanthittu Kazhuveli, Villupuram District

- There is an attempt to create developable land from tidal influence bodies

Example 2: Adyar Creek, Chennai

- There is an attempt to arbitrarily demarcate tidal influence by man-made structures such as bridges



Example 3: Ennore Creek, Chennai

- There is an attempt to regularise past violations by shifting the HTL to accommodate them

The verification has revealed that the newly drawn HTL is erroneous and cannot be relied upon for the preparation of Tamil Nadu's CZMP.
The discrepancies have the effect of creating new real-estate and of regularizing past violations.
In addition, the absence of information about the methodology used to demarcate the HTL has hampered a more comprehensive verification, which would undoubtedly lead to uncovering a more erroneous HTL demarcation. From the point of view of the communities, the incorrect and incomplete mapping of the HTL continues to dilute the ambit of

protection under the CRZ notification. In spite of this the erroneous new data forms the baseline of the draft MCRZ notification, 2017.

ROUND 3: 2014-TODAY

The process of reviewing this Coastal Regulation Zone Notification 2011 started when the Ministry of Environment, Forests and Climate Change (MoEFCC) directed a review of the notification. To conduct this review, the ministry constituted a committee under the chairmanship of Dr Shailesh Nayak, the then director of the Ministry of Earth Sciences. The key mandate of the committee was to suggest measures to address the concerns of state governments, iron out any ambiguities within the CRZ notification and bring 'procedural simplification'.

Even while the committee's review has been underway 8 amendments were issued to the CRZ notification, 2011. Cumulatively these amendments indicated a boost for real estate development, reclamation processes, tourism activities and industrial infrastructure. In addition, the approval process has been decentralised, and certain project approval processes have been transferred from the MoEFCC to the State Environment Impact Assessment Authorities (SEIAAs). And lastly, the constitution of the District Level Coastal Committees (DLCC) is indicative of the shrinking democratic spaces available to the fishing communities to interact with the state. **The CRZ review by the Shailesh Nayak Committee in itself has also been a one sided process.** While the state governments' grievances were heard, the State Coastal Zone Management Authorities (SCZMA) and the fishing communities were not consulted during the review.

On the basis of the recommendations of the committee, in March, 2017 the MoEFCC decided to present the new Marine Coastal Regulation Zones (MCRZ) notification, 2017 to what it considered its stakeholders – the ministries of Tourism, Shipping and Urban Development, Commerce and Industry, Petroleum & Natural Gas, Earth Sciences and the Niti Aayog. The infrastructure-related portfolios of these ministries are reflected in their views asking for relaxations in the permissible activities. The CRZ-I and CRZ-III zones in this draft, vital to the access and the settlement of fishing communities, have undergone dilutions with the **no new construction** clause in the CRZ-I and the **no development zone** clause in the CRZ-III zones being removed. Perhaps the biggest dilution in the **new regulation is the ability for the state/UT governments to reclassify populated CRZ-III areas as CRZ-II areas,** and thus being able to potentially apply town and country planning regulations under the norms of Floor Space Index and Floor Area Ratio[14] to rural areas and fishing community settlements[15].

Not much is known about the current state of the draft MCRZ notification, 2017. 11 Annexures, imperative to study the entire scope and the impacts of the new regulations are absent from the public domain.

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[14]Floor Space Index (FSI) Is The Ratio Between The Total Built-Up Area And Plot Area Available Allowed By The Government For A Particular Locality. Floor Area Ratio (FAR) Is The Ratio Of A Building's Total Floor Area To The Size Of The Piece Of Land Upon Which It Is Built.

[15]CPR-Namati Environment Justice Program (2017, 28 April) Series On 'Coastal Regulation' Retrieved From Http://Cprindia.Org/Tagging/Coastal-Governance

CONCLUSION

A web portal for obtaining CRZ clearances was introduced on the 8th of March, 2017. According to the Minister of State of Environment, Forest and Climate Change this was a good example of **'ease of doing business'**. Another amendment was introduced to the CRZ notification in October, 2017 this time permitting the mining of atomic minerals in the CRZ areas. The amendment was made, as seems to be routine these days, without inviting public comment citing that it was in the interest of the public[16].

Resource-intensive activities are taking the path from prohibition (CRZ, 1991) to regulation (CRZ, 2011) to promotion (draft MRCZ, 2017) while the state's engagement with the resource-based communities is taking one from engagement (CRZ, 1991) to consultation (CRZ, 2011) to alienation (draft MCRZ, 2017).

The state is actively redistributing land by bypassing national legislations and the processes of democratic consent, thereby subverting the rights of the fishworkers, guaranteed to them under the constitution. By reducing their identity to that of a coastal stakeholder, thereby promoting multi-stakeholderism, the state blurs the perception of their rights in the public domain and accuses them of being the problem. The token process of protecting fishworker rights under the ambit of the Coastal Regulation Zone notifications must be replaced by and act that recognises the critical role they play in the survival and the maintaining of the coastal ecosystem[17].

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The word 'stakeholder' has overt political consequences in terms of who are considered to be legitimate actors and partners in solving global issues; legitimate rights-holders (people) are put on par with other actors (e.g. corporations and investors)[18]

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[16]Kapoor. M, Dinesh. K (2017, Oct 26) India's coastal law is being altered in public interest – by bypassing the public. Retrieved from https://scroll.in/article/855104/indias-coastal-law-is-being-altered-in-public-interest-by-bypassing-the-public

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HIGH TIDES OF PRIVATISATION

A BRIEF PEOPLE'S HISTORY OF FISHERIES IN INDIA TO UNDERSTAND THE IMPLICATIONS OF THE NATIONAL POLICY ON MARINE FISHERIES 2017

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"Law is not equal to justice; but it is just there to be a law"

- Gayatri Spivak

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On 28th April 2017, the Government of India announced a new 'National Policy on Marine Fisheries' (NPMF). Since its release it has begun to create tremors along India's coastline for the small-scale fishing (SSF) communities. Following the liberalisation of India's economy in 1991, the coastline of India has become an exponentially dynamic zone, home to not only 3300 odd fishing villages but a growing number of ports, Special Economic Zones (SEZs), energy plants and tourist sites; creating a tug-of-war of competing claims between multiple new resource-intensive stakeholders and traditional resource-based rights-holders. During this time, the SSF community has witnessed their claim to rights and access to justice shrink. The NPMF 2017 exacerbates this situation to critical proportions in three sweeping changes.

First it displays a consolidation of power at the central government rather than the state; secondly one of the main objectives of the policy is to transfer capacity (financial, infrastructure, human resource) from inshore fisheries to exploitation of the deep-sea; thirdly it proposes privatisation as the means to achieve its goals, cementing a policy of exclusion of SSF and making itself a text book case of 'Ocean Grabbing'[1].

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[1]The term "ocean grabbing" has been used to describe actions, policies or initiatives that deprive small-scale fishers of resources, dispossess vulnerable populations of coastal lands, and/or undermine historical access to areas of the sea. Bennett, N.J., Govan, H. and Satterfield, T., 2015. Ocean grabbing. Marine Policy, 57, pp.61-68.

In this light, the chapter aims to examine the NPMF 2017 and some of its main implications on the SSF. However, acknowledging that policy making is ultimately a product of a socio-historical process we will begin by broadly tracing the evolution of the sector chronologically. This story weaves how India's fisheries policies were framed foremost in response to its aspiration for economic growth and an increase in resource exploitation. Influencing the narrative is the struggle for rights, the building and dismantling of governance structures, and the rise of multi-lateral trade agreements. With its roots deeply embedded in the 'Blue Growth Initiative', which arose at the international Rio +20 conference in 2012, the policy adapted in India as **'Neel Kranti' has rendered a top-down technocratic market-based model, which co-opts the syntax of conservation and social justice but does little to prove itself in explicit terms through a genuine effort at resource allocation and provision of rights.** Associated with the NPMF are other policies, though not formally linked they spatially overlap the coast – these are the Sagarmala Project[2] and the restructuring and amendments of the Coastal Regulation Zone[3]. **There is a need for a different way of viewing India's ocean and coasts, beyond narrow economic terms but as a diverse socio-ecological landscape.** This calls for a policy that contributes to the allocation of space, the access to the resource and democratic control over resource harvesting in the hands of traditional fishworkers.

HISTORICAL OVERVIEW OF INDIA'S FISHING POLICY

Fishworkers in India are not a homogenous community and fishing as a practice in the sub-continent dates back to thousands of years, evolving as diverse traditions by adapting to local geographic, cultural, religious and ecological conditions. Largely subsistence based until independence, developing fisheries as a productive sector became one of the main mandates of the newly formed government. The responsibility to transform it into an economically viable sector under the Ministry of Agriculture rested with both the State and Central government. **Today fishing practices are in addition shaped by trends of the domestic and international market, politics and policies, technology, climate change and ecological degradation.**

Fisheries in India can be characterised into three distinct phases[4]. **In phase one** (1950-1966), landings were mainly by non-mechanised traditional crafts and gears, such as hook and line, gillnets, seines, bag nets and traps, from catamarans, canoes and plank built boats. During the **second phase** (1967-1986), these traditional crafts were modified to hold outboard engines of 5-9 hp (i.e., motorisation), in order to travel farther and increase fishing effort. As a result there was a tremendous hike in fish production, synonymous increasing conflict between SSF and mechanised trawlers, paving the way or necessitating for unionisation of fishers and the first fishing regulations to come into force. In the **third phase** from about 1987 to 2010, major endeavours were made to further increase mechanisation and develop

[2]Policy launched in 2015 focusing on the maritime-trade and Port-led development
[3]Under the Environment Protection Act, 1986 of India, notification was issued in February 1991, for regulation of activities in the coastal area
[4]Adopted from the study on 'Catch Reconstruction' by University of British Columbia's – Sea Around Us Project

the industrial fishing sector[5]. This phase was characterised by the liberalisation of the economy in 1991, foreign players entering the fishing scene and several fisheries witnessing a bust after a period of boom in the 70s and 80s.

Until the 1970s there was no explicit policy that governed fisheries, it was the international 'United Nations Convention of Laws of the Sea'[6] that demarcated the boundary of a nation's 'Exclusive Economic Zone' (EEZ) at 200 nautical miles from the coastline. Within this boundary lay the 'Territorial Waters' up to 12 nautical miles from the coast and the area beyond and up to the EEZ was demarcated as the deep sea. Consequently the management of the Territorial Waters held by the state and the deep-sea remains with the Centre (enshrined in the constitution as state list and union list respectively).

Another major development in the late 1960s and 1970s was the emerging industrial fishing sector through bilateral agreements with Norway[7] which brought technical assistance, knowledge and capacity to build both an Indian and foreign fleet of trawlers. Soon a series of conflicts emerged between artisanal and recently mechanised trawler fishers of different states (mainly Goa, Kerala, Tamil Nadu) and those operating in the territorial and deep-sea zones. This conflict led to regulatory measures to be adopted and in response, the government's appointed the **Majumdar Committee,** which recommended there be a policy that protects the interest of small-scale fishers. This resulted in the **'Marine Fishing Regulation Act 1978'**. It is from this statute that states derived and enacted their own specific acts and rules, e.g: Kerala Marine Fishing Regulation Act 1980.

NOTE: **Is it important here to acknowledge that the first key legislation regarding fisheries stems from a fishers struggle.** It was born out of a situation of conflict (between SSF and bottom trawlers) but dealt by fishers organizing themselves into unions and demanding a fisheries regulation that was more equitable and just with measures to sustainably harvest marine resources. The period between 1976 to 1980 saw marches, hunger strikes, and protests across coastal states demanding the state to act. Forty years since, this has tremendous relevance for the SSF in the face of NPMF 2017, as they demand equitable and democratic policy.

The events that unfolded over the next two decades is well summarised in this report by Hornby et al in 2015, **"The first offshore policy was developed in 1977, in hopes to initiate chartering arrangements with foreign companies. However, the Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act came into effect in 1981 to regulate fishing by foreign fishing vessels in India's EEZ (Bhathal 2005). The number of large trawlers increased from 37 in 1978 to 180 in 1991, most of which operated off the east coast from Visakhapatnam[8]. By the early 1980s, about 110 chartered and joint venture vessels were exploiting inshore grounds up to 50 m (Kurien 1995; Devaraj 1996). In 1983, depth restrictions beyond 80 m were enforced which resulted**

[5](Rao and Murty 1993; Bhathal 2005)
[6]Although UNCLOS was enacted in 1976, India didn't formally become party till 1983).
[7]Indo-Norwegian Project n Indo-Norwegian Project (INP) for Fisheries Community Development in the States of Travancore- Cochin and took effect in January 1953 following a tripartite agreement signed in New Delhi between the United Nations, the Government of Norway and the Government of India
[8](Rao 1988; Kurien 1995; Devaraj 1996).

in many foreign vessels leaving the country, as most were targeting valuable shrimp species found inshore. The 'Deep Sea Policy (1991)' set the stage for further foreign influence; however, the policy was rescinded in 1997 after protests from local fishers forced the government to halt administering licenses to joint-venture companies (MOEF 2002)." As a result of these protests in the 1990s was the constitution of the **Murari Committee.** The report of the committee, released in 1996, contained 21 important recommendations. **Box 1** (below) shows the key recommendations made by the Committee with regard to deep-sea fishing. This was a milestone in the history of the fisheries movement in India. However, very little was incorporated into formal policies or rules adopted by the centre or the states.

BOX 1: SUMMARY OF KEY RECOMMENDATIONS

Protecting Indian vessels up to 20 m length

- The Committee effectively created an exclusive zone for Indian vessels below 20m length within which larger vessels should not operate
- On the west coast, the boundary of this zone was to be the 150 m depth line. Where the 150 m line was within 50 nautical miles, then the zone will extend up to 100 nautical miles
- On the east coast, the boundary of the zone would be the 100 m depth line or 50 nautical miles, whichever was farther from the shore
- In the Island territories of Andamans & Nicobar Islanda and the Lakshadweep, the sea up to a distance of 50 nautical miles to be reserved for boats below 20 m

in order to regulate and quell the tension created by the growing number of foreign trawler vessels the LoP (Joint Venture)[9] scheme was launched in 2002. Intended as a reform it only worsened and complicated the matter due to the lack of monitoring and enforcement. Foreign companies began operating through a partnership model with Indian companies. **They began to operate inside and out of the EEZ with routines of re-flagging and transhipping their catch. It is estimated that India lost 24,000 tonnes through illegal transhipments by Taiwanese owned longliners operating under the LoP scheme in 2007 alone[10]. Since its** inception the LoP schemes has drawn considerable amount of criticism from SSF, unions, activists and conservationists alike. The 'Public Private Partnership' model has been put forward in the NPMF 2017 as a remedy, thereby scrapping the LoP scheme. However, examining the details of the PPP model shows that this is simply a repackaging, since the same principles of emphasis on resource exploitation rather than livelihood and food sovereignty apply.

To bridge the gap of governance and regulation between the state and centre and to align the differential policy arrangement, the Comprehensive Marine Fishing Policy 2004 was released, followed by a draft of the Marine Fisheries Management and Regulation Bill by the Ministry of Agriculture. In 2009 It called for the following changes:

- To annul Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976 and repeal the Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act, 1981.
- Since regulation of fishing in the territorial waters was a state subject and outside the center's purview, there was a policy vacuum created regarding 'regulation of Indian fishing vessels Indian-build in the EEZ, a category, so far, with no legal responsibility, or accountability, except the requirement to follow the seasonal monsoon ban and the prohibition on taking certain endangered or protected species under the 1972 Wildlife (Protection) Act.

[9]The Scheme was aimed at facilitating Indian fishermen buying used deep sea fishing vessels from Taiwan & Thailand
[10]Pramod 2012

This triggered a debate in many of the coastal states and some State Governments also made objections to the same. The International Collective in Support of Fishworkers (ICSF) as well as National Fishworkers Forum (NFF) issued a statement.

The summary of the suggestions made:

- Elaborate in greater detail, the intent of the act and explicitly mention the protection of the rights of the traditional fishing communities and to use fisheries management as a tool for improving the lot of the fishing communities and to ensure equitable distribution of the fish resources
- Widen the scope of the act to ensure that all aspects of fishing comes under it and in this context (i) to define fishermen and their rights, (ii) ensure that proper linkages are created in this act to other legal instruments regulating fisheries like Merchant Shipping Act, Wildlife Protection Act, etc.,(iii) make provisions to ensure proper working conditions on board, adequate training and safety at sea, (iv) bring trade and market related policies within the ambit of the act, without which the management plans will be limited in their effectiveness and (v) provide for reciprocal agreements with neighbouring countries for regulated access to each other's waters and fish resources
- Enunciate guiding principles on resource allocation/access to ensure that environment, employment and equity are all properly addressed in the management plans
- Re-think the system of punishments so that punishments are proportionate to the offence and fishermen are not unnecessarily put through the court system for all offences
- Design a better governance mechanism for implementing the act that will involve multiple stakeholders including relevant Central Ministries, all coastal states, fishermen associations, scientists and NGOs

There were various consultations on the Position Paper, but all did not end in a fruitful result.

A NOTE ON COASTAL LEGAL PLURALISM: FISHER'S ACCESS TO STATE GOVERNANCE AND RIGHTS.

When glancing at this fisheries history what is clear is that the SSF have been consistently and actively engaged with the state for equitable regulations. However, the resulting policies have always been technocratic, top-down and focused on increasing production without ensuring coastal food and ecological security or income distribution. One of the barriers in the way of true co-management and holistic fisheries policies perhaps is the phenomenon of prevailing coastal legal pluralism. Coastal legal pluralism here simply refers to the labyrinth of multi-layered governance systems, (i.e. laws, government bodies, schemes, financial instruments, trade agreements- refer Table 1) which are formulated and managed by the state to govern the ocean and coast. They often operate tangentially and are dismissive of the normative framework of the coastal fishing communities. These norms and rules are site specific, where communities have developed their own informal set of arrangements or customary law between themselves to access and utilise the marine resource.Evidence suggests that they are more effective in managing marine resources as opposed to central and state regulation, towards which fishers don't feel ownership and perceive as against their interest.

Marine capture fisheries falls under the Ministry of Agriculture, however there are several other state agencies that manage various aspects of the fisheries governance as illustrated in the table below.

TABLE 1: ITEMS RELATED TO MARINE CAPTURE FISHERIES AND LEGISLATIVE COMPETENCE

ITEM	AGENCY/MINISTRY/ DEPARTMENT
Deep Sea fishing (List I) Survey & assessment of fisheries resources Research Training & extension Aquaculture development	Ministry of Agriculture / Department of Animal Husbandry and Dairying
Monitoring of fishing by foreign vessels (List I) Prevention of marine pollution by ships Protection of endangered species (Wildlife Protection Act, 1972)	Ministry of Defence / Coast Guard
Fish processing Processing units	Ministry of Food Processing
Seafood exports (List I) Quality control	Ministry of Commerce & Industry / Marine Products Export Development Authority (MPEDA) Export Inspection Council (EIC)
Law of the Sea negotiations (List I)	Ministry of External Affairs
Potential fishing zones Monitoring ocean pollution	Department of Ocean Development (DoD)
Fishing vessel industry (List I) Major fishing ports (List I) Minor fishing ports (List II)	Ministry of Shipping

In addition are the following central statutes:

- **Coastal Aquaculture Authority Act, 2005**
- **The Biological Diversity Act, 2002**
- **The Wildlife (Protection) Act, 1972 (as amended 2002 and 2006)**
- **Trade Unions (Amendment) Act, 2001**
- **Environment (Protection) Act, 1986**
- **Marine Products Export Development Authority Act, 1972**
- **Merchant Shipping Act, 1958**
- **Forest Rights Act, 2006 and Rules 2007**

Source: FAO 2004, http://www.fao.org/docrep/009/a0477e/a0477e0k.htm#fn270

Ultimately, while policies can be negotiated at any scale (international, national, state, local) the implementation takes affect at the 'site'. Depending on how it is it is implemented at the local scale legal pluralism can either facilitate or govern conflict in fisheries[11]. However evidence suggest most often state law is unable to engage with local customary law as it operates always in relation to the nation. Therefore, for true co-management to exist in practice and go beyond the letter, requires a certain degree of malleability and space for national and state legislation to interact with local norms and rules.

NATIONAL POLICY ON MARINE FISHERIES 2017- A REVIEW

The previous sections serve as background against which the NPMF 2017 must be examined. The goal is not just a critique but also an attempt to identify windows of opportunities for creative solutions and dialogue. The main lens of investigation is to understand how the NPMF 2017 manages to address the issues regarding production, distribution, allocation and social justice.

[11] Karnad.D 2017
[10] Pramod 2012

There are two major events that act as precursors to the drafting of this policy, the first is the Blue Growth Initiative which revamped the older blue Revolution discourse (which exists from early 1950s) at the Rio +20 conference. The second is the fisheries Working Group 2011[12] which re-estimated potential yield estimates. Together they set the tone and direction, which the government intends to take, by making the following points in its text:

- **Deep Sea as the main frontier,** since "near shore waters have been fully utilised" and "high value species like oceanic tuna are yet to be optimally harvested"
- **Mariculture and Aquaculture** to be encouraged in near shore waters
- **Artisanal sector** is small and insignificant
- **Public-Private Partnership (PPP)** to replace LoP scheme and to aid in moderising existing fleet to exploit deep waters

UNDERESTIMATING THE SECTOR THAT MAKES UP SSF

NPMF 2017 Section 3.0 and 4.0 Right at the outset, this section characterises fishing as, **"purely traditional activity… now transformed to a commercial enterprise",** it then goes straight into the potential yield estimates from 2011 (revised from 2000). **"Among the active fishermen, 33 per cent are employed in the mechanised sector, 62 per cent in the motorised sector and 5 percent in the artisanal sector. Of the total marine fish production, 75 per cent comes from the mechanised sector, 23 per cent from the motorised sector and 2 per cent from the artisanal sector"**

What stands out in the above quote is the simplification of history, accompanied by a homogenised and reductionist approach towards the SSF whose efforts are labeled as erstwhile 'purely traditional activities'. It also begs the question of what constitutes traditional and artisanal and who constitutes the community we refer to as 'Small Scale Fisher'? The Indian government categories fishers according to technological categories – mechanised, motorised and artisanal. Academic scholarship is teeming with definitions, examples and statistics in an attempt to untangle and describe the Indian SSF as a diverse community. What is clear when examining ground realities of fisheries in India is its place- specific traditional practices, which continuously adapt to advances in technology, available fish stocks and changing market dynamics. However, this idea grates against the popular fisheries development discourse adopted by the government, which has historically viewed SSF through the lens of poverty and backwardness, to pitch polices like 'Neel Kranti' as ones leading to emancipation, prosperity and economic growth[13]. Therefore envisioning a linear progression of development from artisanal towards mechanisation to direct investment and policy.

This would mean that SSF according to the numbers cited in NPMF 2017, comprises of 67% of the sector bringing in 25% of the total catch. It falls short by not taking into account allied or associated livelihoods of post harvest phases. The 'Catch Reconstructions' report reveals alarming discrepancies and undervaluation of the fisheries that comprise of the SSF from 1950 to 2010. It reports that India's marine fisheries is reconstructed to be two times the official landings reported (about 75 million tonnes within the EEZ) on behalf of India for the 1950-2010 time period.

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[12]Government of India.2011. Report of the Working Group on Fisheries, for the Twelfth Five Year Plan (2012-2017). New Delhi. Planning Commission. 2011. Download
[13]Jhadhav 2017

TABLE: COMPARISION BETWEEN METHODOLOGY AND RESULTS

SOURCE	TRADITIONAL CRAFTS	MOTORISED TRADITIONAL CRAFTS	MECHANISED BOATS
Landed catch: Fisheries Survey of India 2010	2%	23%	75%
	SUBSISTENCE	ARTISANAL	INDUSTRIAL
Sea Around Us	33%	32%	35%

When a comparison is made between the landed catch percentage between the NPMF, 2017 data and the Sea Around Us reconstructed data, two trends are apparent:

- Catch breakdowns are flawed since they do not include discards at sea, or catches from the subsistence sector.
- Different methodologies reveal different figures, indicating the need to re-visit fisheries statistics methodologies.

The subsistence sector accounted for almost a third of India's catch over a 7-decade period together with artisanal accounted for 65% of the total Indian catch. This implies that the near-coastal and inshore fisheries are regions that are critical for the food sovereignty of the traditional fishing community. However, this alternative form of economic activity, which exists informally and outside the market, has been missing entirely from the catch data, indicating the purely 'poverty-based' lens that the sector is viewed with.

OVERCAPACITY - THE PROBLEM WITH THE DEEP SEA

NPMF 2017 Section 16.0: "The Government will introduce new scheme(s) for enhancing the skills and capabilities of the traditional fishermen to undertake and popularise deep sea fishing. The scheme(s) will inter-alia consider modernisation of existing indigenous deep sea fishing fleet, introduction of new indigenous deep sea fishing vessels through fishermen cooperatives/self-help groups, on-board training and linkages to markets and export."

Scientists acknowledge India's deep waters to be largely unproductive as it is oxygen and nutrient deficient; decisions in the past that chose to ignore this have met with terrible consequences. Case in point is the offshore expansion that took place during the 1980s - 90s, where very quickly, effort in the deep waters resulted in poor catch, pushing these vessels to operate inshore instead. This resulted in stiff competition between these deep-water trawlers and small-scale fishers which lead to conflict, overfishing and trophic cascade.

As per the report of the Fishery Survey of India-Working Group, the depth to catch ratio of India's coastal waters indicates that 86% of the country's catch potential lie in the first 100 meters, increasing to 92% in the first 200 meters, zones well within reach of the SSF community. However, these zones have been drastically affected by resource-intensive coastal development. But the Policy recommends exploitation of species such as Tuna species, bill-fish and sharks, found in the deep sea – from purely their valuation in the international market, rather than also considering community needs and use. The policy's push is to transform a shore-line fishing activity into a harbour based industrial fishery.

With exploitation of the deep sea as one of the biggest thrust of India's vision for the Blue Revolution, the problem manifests itself in complex ways along the coastline. **The scenario[14] is currently playing out at Palk Bay, where the existing 2000 trawlers are to be replaced by deep-sea fishing vessels by 2020 with the center and state contributing from INR 800 crore to INR 350 crore respectively.** For the individual boat owner the implication of this policy poses a tremendous shift, not only do they have to dispose their current boats in a prescribed manner, but the tuna long liner will cost them INR 8 lakh upfront and an additional loan of INR 16 lakh. Reselling the boat within the 5-year period will not be allowed. Additionally, trawling will not be allowed in Palk Bay itself. With tuna being a trans-boundary migratory species and the general decline of stocks reported in the Bay of Bengal and Gulf of Mannar the future of fishers of Palk Bay hangs in the balance, as conversion to deep-sea fishing may not be a sound financial investment let alone a sound ecological move. With the dawning of the Blue Revolution many fishers like those in Palk Bay and across the subcontinent coastline are literally caught between the 'Devil and the Deep Blue Sea.'

PRIVATISATION OF THE LAND AND SEA

NPMF 2017 Section 15.0: "While ensuring the small-scale character of marine fishery, private investments will be promoted in deep sea fishing and processing to fully harness the potential of marine fishery for inclusive development…. Entrepreneurship development, private investment, Public Private Partnership (PPP) and better leveraging of institutional finance for marine fisheries sector will be encouraged. Besides, modalities will be worked out for integration of sea food processing and export sector with the deep sea fishing industry for holistic development of the sector."

Until now India adopted the mechanism of developing its own inshore and offshore fisheries, which makes it a unique coastal state having never being party to any fisheries access agreement. As mentioned above, the LoP (joint-venture) scheme introduced in 2002 led to the loss of approximately 24,000 tonnes or more through illegal transhipments by Taiwanese owned longliners operating under the scheme in 2007 alone (Pramod 2012). The NPMF 2017 acknowledges the failure of the LoP scheme and brings forth the PPP model in its place. The intention is to bring in private investment to modernise existing fleets to enter the deep sea (beyond 200 M depth and outside the 12 NM).

This type of entrance of private players into marine capture fisheries poses one of the biggest threats to SSF. Driven solely to make profit, designed only to obey the rules of the free market, this policy paves the way for capital accumulation and the control of marine resource in the hands of a few. As indicated in the policy this type of privatised take over is not limited to the production but bleeds into every stage of the supply chain. The consequences of this sever the lines of distribution and equity and it is in the interest of free market to do so. By shaping the demands of high and middle-income consumers and through effective lobbying, the industry also

[14]'Is 'deep sea fishing' the silver bullet? http://www.thehindu.com/todays-paper/tp-opinion/is-deep-sea-fishing-the-silver-bullet/article19836094.ece

captures the decision-making power over the model of production – which fish ought to be fished by whom and how – resulting in means of exploitation of fish resources and practices that are detrimental to small-scale fishing. This trend of privatisation of the sea also makes inroad to land, to facilitate post-harvest through projects routed through Sagarmala and approved by Coastal Zone Management Authorities.

CONCLUSION

In many ways the National Policy on Marine Fisheries of 2017 is poised at a precarious juncture, where the wheels of the government machinery have already begun to churn. Central and states schemes and subsidies are being drawn; funds allocated, invitations for PPP being advertised, directives being wired from the Centre to state fisheries departments. The policy mentions many progressive management mechanisms such as TURFs (Territorial User Rights for Fishers), balancing between MPA and traditional rights of fishers, spatial or temporal closures, gender equity and adoption of Voluntary Guidelines on Sustainable Small Scale Fisheries. However, they seem like tokenism and lip-service since the larger policy thrust is still on the idea of 'exploitation' through capital intensification, boat financing, commercial post-harvest infrastructure and fuel subsidies. With its eye on export-oriented tuna, billfishes and sharks from the deep sea and culture-based fish farming from inland and coastal waters, this is a myopic approach that is geared for profit maximisation by a few players within a short term with poor distribution of benefits to fishworkers, leading to catastrophic ecological impacts.

Privatisation and the rise of an export-oriented sector may indeed yield results in terms of growth GDP, however the question of food sovereignty, human rights and ecological health hang in the balance. The time has come to halt the false narrative of a poor fishworker who needs uplifting by the state. Instead the need is to channel efforts to build more democratic routes for policymaking and dialogue.

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CH 2:
RESTRUCTURE

SAGARMALA MYTH OR REALITY?

GANDIMATHI ALAGAR, LAKSHMI PREMKUMAR and ISHITA, with inputs from Public Finance and Public Accountability Collective

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FREQUENTLY ASKED QUESTIONS

WHAT IS THE SAGARMALA PROGRAMME?

The Government of India announced the Sagarmala Programme in March, 2015. According to the Government, the port-led development plan attempts to 'harness the potential of India's Coastline and Inland Waterways'[1] . It aims to transform the transport and logistics infrastructure of the country by cutting down on transport costs for commodities and accelerating port-led development. While pitching itself as a ports, logistics and transport scheme, the Programme aims to create **a coast based industrial model** that proposes to increase India's GDP by 2 per cent in the next 20 years.

[1] Rajive Kumar, IAS, Secretary, Ministry of Shipping, The Sagarmala Post, January 2017

The Sagarmala Programme seems to be an overarching idea or umbrella term under which a roadmap for road, rail, river and coastal systems reconstruction has been created.

The Government is pitching the plan within the Maritime and Logistics arm of the Blue Economy, connecting national policy to international discourse on how the economic potential of the oceans can be realised. The government, by locating the plan within the ambit of the blue economy, implies that it gives equal weightage to economic growth and environmental sustainability.

WHAT ARE THE AIMS OF THE SAGARMALA PROGRAMME?

The stated objective of the Sagarmala Programme is to decrease costs for domestic and Import-Export (EXIM) trade. It aims to achieve the following by 2025: mobilise 4 lakh Cr from infrastructure investment, save Rs. 35,000-40,000 Cr per year on logistics, double the share of waterways by 6 percent and boost exports by USD 119 billion[2].

- Increase efficiency of ports by modernisation and expansion of existing ports and creation of new ports
- Reduce costs of transport of key commodities and cargo for domestic and EXIM purposes through creating a mix of different forms of transport, namely- waterways, roads, rails and pipelines.
- Lower transport costs and increase competitiveness of ports by locating future industrial expansion near the coastline.

Major Ports in India:

Kandla (Deendayal) Port Trust, Gujarat

Mumbai Port Trust, Mumbai

Jawahar Lal Nehru Port, Mumbai

Mormugao Port Trust

Kolkatta Port Trust, Kolkatta

Haldia Dock Complex, Kolkatta

Paradip Port Trust, Odisha

Vishakhapatnam Port Trust, Andhra Pradesh

Cochin Port Trust, Kerala

New Mangalore Port Trust, Karnataka

Chennai Port Trust, Tamil Nadu

Tuticorin Port Trust, Tamil Nadu

Kamarajar (Ennore) Port Limited, Tamil Nadu

WHAT ARE THE COMPONENTS OF THE PLAN?

There are 397 or 415 different projects that form part of the overall plan; 397 projects have been identified in a Final Report submitted by the Project consultants – McKinsey & Company Ltd and AECOM, (referred to as Final Report) whereas all official communication, after the National Strategic Plan (NSP) was released in April 2016, mention 415 projects. These projects have been divided into the following categories:

[2]Executive Summary, National Perspective Plan, Sagarmala, Ministry of Shipping, April 2016

- **Port Modernisation and New Ports:** Expand (dredging & new infrastructure), maintain and upgrade technology in existing 12 major ports and streamline customs processes to increase capacity from existing 871.5 Metric Tonne per Annum (MTPA) to 1,414.5 MTPA. Create 6-7[3] new greenfield ports across the east and west coast.
- **Connectivity Enhancement:** Expand and connect different modes of transport of freight - including roads, railways, pipelines and coastal shipping, with special focus on development of 111 inland waterways by 2035, and the creation of five Inland Container Depots.
- **Port-led Industrialisation:** Use coastal land and regions near ports to create industrial areas and manufacturing zones for easy export. Clubbed into energy, power and discreet manufacturing, they include power, refinery and petrochemicals, steel, cement, ship repair and breaking yards, automotive, food processing, apparel, furniture, leather and footwear, science and technology which will be developed as Coastal Economic Zones (CEZ) or Coastal Economic Units (CEUs) and are the focal point for coastal development. The CEZs are also meant to generate 40 lakh direct and 60 lakh indirect jobs for coastal communities.
- **Coastal Community Development:** It is pitched as the 4th plank of the Sagarmala Programme. It aims to train and undertake skill-development of coastal communities for jobs related to ports, maritime industry and industrial clusters. It also includes grants for fishermen for social welfare projects and the livelihood generation within and outside fisheries sector.

WHAT IS THE TIMELINE OF THE SAGARMALA PROGRAMME?

The different projects under the Programme are to be developed in a phase wise manner over the period between 2015 to 2035. 203 projects have been identified as 'focus projects' that are meant to be completed by 2020. The timeline of implementation is said to be as follows:

TABLE 1: PROJECT OVERVIEW

CATEGORY	NUMBER OF PROJECTS
Projects under implementation	111
Projects to be implemented by 2020	203
Projects to be implemented after 2020	83
Total Projects	397

Source: Report on Government Imperatives including Financial Plan

[3] Number changes between documents. 6 port are identified, 7th is unknown. Number changes between documents.

WHAT EXACTLY ARE THESE PROJECTS?

Exact details about finalised projects are unclear and a listing of ongoing projects mentioned in government bulletins has been compiled as Annexure 1. To give some idea of the scope of the plan, the overall distribution of the number of projects under each category is presented in Table 1. Details and plan documents of the 203 projects that are to be completed by 2020 are not available in the public domain.

TABLE 2: PROJECT COMPONENTS

S. N	PROJECT THEME	NUMBER OF PROJECTS	PROJECT COSTS (CRORE)
1	Port Modernisation	189	1,42,828
2	Connectivity Enhancement	170	2,30,576
3	Port-Linked Industrialisation	33	4,20,881
4	Coastal Community Development	23	4,216
	TOTAL	415	7,98,500

Source: Sagarmala Post, January 2017

TABLE 3: NUMBER OF PROJECTS AND IMPLEMENTING AGENCIES

SECTOR/ CATEGORY	TOTAL NUMBER OF PROJECTS AS PER NSP	NUMBER OF FOCUS PROJECTS (TILL 2020) AS PER FINAL REPORT FOR SAGARMALA, VOL.3	IMPLEMENTING AGENCY FOR FOCUS PROJECTS
Ports			
New mega ports	6	7	Major Ports Trust
Expansion of ports	40 plus	54	Major Ports Trust
TOTAL		61	
Connectivity	70 plus		
Dry Ports/ Intermodal Hubs	7	2	Container Corporation of India Ltd. (CONCOR)
Roads	70		
Roads project		1	IPRCL
Highways	10	25	NHAI
Expressway		10	NHAI
Internal Road Projects		6	Major Ports Trust
Railways	38		
Rail Projects		6	Indian Railways
Rail Projects		22	The Indian Port Rail Corporation Limited (IPRCL)
Pipelines			
Internal Rail Project		32	Major Ports Trust
TOTAL		75	
Inland Waterways	101	3	The National Highways Authority of India(IWAI)
Port led industry			
High Potential industries (within CEZ)	29		
Refinery Project		2	Ministry of Petroleum & Natural Gas (MoPNG)
Discrete clusters		12	The Department of Industrial Policy & Promotion (DIPP)
		2	Major Ports Trust
CEZ		1	DIPP
TOTAL	29	17	
Tourism		2	Ministry of Tourism
Unkown Projects		37	SDC
Other known Projects		8	State
TOTAL		203	

Source: Report on Government Imperatives including Financial Plan and National Perspective Plan

WHAT IS THE GEOGRAPHICAL SCOPE OF SAGARMALA?

The geographical scope of the Sagarmala Programme is extensive and covers a coastline of 7,500 km, inland waterways of which 14,500 km are navigable and coastal zones in the 9 coastal states as indicated below. **Any estimation of actual physical space required in the country to implement the projects including roads, pipelines, intermodal hubs is close to impossible.** Only a sense of the geographical scope of the plan is possible.

- Coastline: 7,500 Km
- Inland Waterways: 14500 km navigable amounting to 111 water-ways
- Number of Coastal States[4] : 9

The estimated area of the different industries is as follows[5] :

- Petrochemical refineries: 4000 acres
- Gas based clusters: 400 acres
- Power clusters: 7,000 acres
- Cement cluster: 700 acres
- Steel clusters: 10,000 acres
- Marine clusters:3500 acres
- Automotive clusters: 4000 acres
- Apparel parks: 3000 acres
- Leather and footwear clusters: 1500 acres
- Food Processing clusters: 2000 acres
- Furniture clusters: 2000 acres
- Electronic clusters: 3000 acres

TABLE 4: COASTAL DISTRICTS IDENTIFIED FOR PORT-LED INDUSTRIALISATION PROJECTS/ CEU'S

COASTAL ZONES	POTENTIAL DISTRICTS/ REGIONS
Gujarat	Kutch Junagadh, Amreli, Bhavnagar, Ahmadabad Bharuch, Surat, Valsad, Navsari
Maharashtra	North Konkan Coast- Nasik, Thane, Mumbai, Pune, Raigarh South Konkan Coast- Ratnagiri, Sindhudurg, North Goa, South Goa
Karnataka	Udupi, Dakshin Kannada, Kodak, Mysore
Kerala	Ernakulam, Alappuzha, Kollam, Thiruvananthapuram
Tamil Nadu	Mannar- Kanyakumari, Tirunelveli, Thoothukudi Cuddalore, Purambalur, Ariyalur, Tiruchirapalli, Thanjavur, Thiruvarur, Nagapattinam Thiruvallur, Chennai, Kancheepuram
Andhra Pradesh	Chittoor, Nellore Guntur, Krishna Godavari, Vishakhapatnam, Vizianagaram, Srikakulam
Odisha	Puri, Jagatsinghpur, Cuttack, Kendrapara, Jalalpur, Bhadrak
West Bengal	Purba Medinipur, South Twenty Four Parganas

[4]Islands and Union territories are also part of the plan, but islands are featured more prominently. A feasibility report on projects in the Andamans has been conducted by AECOM.
[5]Perspective Plan for Port Led Industrial Development of the Coastal Economic Clusters, Ministry of Shipping, May 2016, accessed at http://shipping.nic.in/showfile.php?lid=2334

WHAT IS THE GOVERNANCE STRUCTURE OF SAGARMALA?

The website of the Sagamala Programme claims to use established principles of 'cooperative federalism'[6] in implementing the Programme.

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Cooperative federalism is meant to indicate a process whereby National, State and local governance works in cooperation to make policies.

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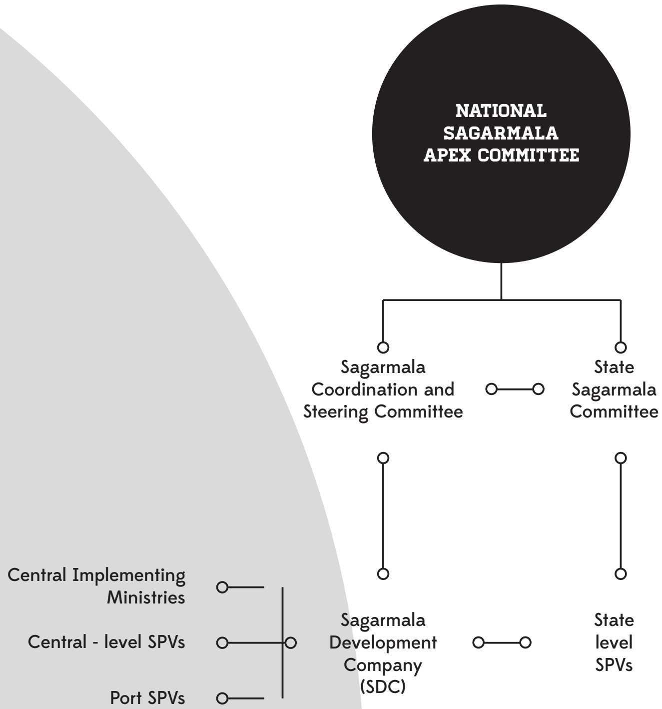
The Ministry for Shipping is the nodal agency for the Sagarmala Programme. The Ministry heads an Apex Committee, called the **National Sagarmala Apex Committee** (NSAC) constituted in 2015, that is responsible for final approvals and policy guidance. Key ministries such as Home Affairs, Road Transport and Highways Coal, Petroleum and Natural Gas, Steel, Defence, Environment, Forest and Climate Change, and Tourism Ministry and Chief Ministers or Ministers in charge of Maritime/ Ports and 'other Stakeholder Ministries'[7] constitute the Apex Committee. Nitin Gadkari is currently the Minister in charge of the Ministry of Shipping, the Ministry of Road, Transport and Highways and Ministry of the Inland Waterways and River Development and Ganga Rejuvenation.

Under the National Apex Committee, **the Sagarmala Coordination and Steering Committee (SCSC)** will be chaired by the Cabinet Secretary, while Chief Secretaries from concerned states and Secretaries from relevant department (for example, Home Affairs, Coal, Petroleum and Natural Gas, Steel, Defence, Environment, Forest and Climate Change, Road,

Transport and Highways and Tourism Ministry) will be the members. Key functions of the SCSC include progress review of implementation, provide

INSTITUTIONAL STRUCTURE OF SAGARMALA PROGRAMME AS REPRESENTED IN THE NPP AND OTHER DOCUMENTS



coordination support, examine finances and consider other issues as and when they are raised.

The Sagarmala Development Company Limited (SDCL) was registered under the Indian Companies Act, 2013. It falls under the SCSC and is the overseeing body under the Sagarmala Programme.

Alongside the SDCL or the NSAC, the State Governments have been directed **to set up State Sagarmala Committee (SSC)** to be headed by Chief Minister/ Minister in Charge of Ports with members from relevant departments and agencies. The committee is to coordinate and facilitate Sagarmala projects[8] in respective states

[6] Institutional Framework of the Sagarmala Framework, www.sagarmala.gov.in
[7] Final Report of the Sagarmala Programme, McKinsey & Co.
[8] Newspaper reports indicate that Andhra Pradesh and Kerala have set up SSCs

WHICH ARE THE IMPLEMENTING AGENCIES OF THE PROGRAMME?

The Sagarmala Development Company Limited (SDCL) acts as an overseeing authority. The SDCL has the following functions, as displayed on the company's website:

- Develop & formulate projects emanating from the National Perspective Plan (NPP)
- Assist project SPVs[9] set up by Central Line Ministries/ State Governments/ State Maritime Boards/ Ports etc. for projects in alignment with Sagarmala objectives
- Provide funding window for residual projects that cannot be funded by any other means/mode
- Prepare the Detailed Master Plans for the Coastal Economic Zones (CEZs) identified as part of the National Perspective Plan
- Raise funds from multi-lateral and bilateral agencies as debt/ equity (as long term capital as per the project requirements

As can be seen in the diagram above, there is an added emphasis on Special Purpose Vehicles (SPVs), the more common corporate model of implementing a project. Distinctions have been made in State, Central and Port SPV- depending on the kind of project. The Indian Port Rail Corporation Limited (IPRCL) is a Joint Venture Company between Major Ports that fall under the Ministry of Shipping and the Rail Vikas Nigam Limited (RVNL). It was instituted and incorporated under the Companies Act, 2013 in July 2015 to execute rail related projects for major ports.

WHICH ARE THE OTHER MINISTRIES AND AGENCIES INVOLVED IN THE PROGRAMME?

The Final Report for Sagarmala[10] lists existing and new agencies for the different components and projects of the programme, as presented in Table 5 on the next page. This gives an idea of who the different projects are being financed and implemented by, under the ambit of the Sagarmala

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[9] A SPV is a sub-plan implementation model for implementing a particular project.
[10] Volume 2 and 3, Final Report

TABLE 5: IMPLEMENTING INSTITUTIONS AS IDENTIFIED IN THE SAGARMALA PROGRAMME

AGENCY	SECTOR	DESCRIPTION
Major Ports Trust	Major Ports	There are 12 major ports (Chennai, Cochin, Jawaharlal Nehru Port, Kandla, Kolkata, Mumbai, New Mangalore, Mormugao, Paradip, V.O. Chidambaranar, and Vishakhapatnam), under central government in the country. These came under the Major Ports Trusts Act 1963. Respective Board of Ports Trusts, appointed by the Central Government, manages ports. The Major Ports Trust Act is now in the process of being replaced by the Major Ports Authorities Bill, 2016.
CONCOR	Container Corporation of India Ltd.	Container Corporation of India Ltd. (CONCOR) is a Navratna Company - a Public Sector Undertaking- with financial autonomy incorporated in March 1988 under the Companies Act, and commenced operation from November 1989 taking over the existing network of 7 Inland Container Depot's from the Indian Railways
NHAI	Highways and Roads	The National Highways Authority of India was constituted by an Act of Parliament, the National Highways Authority of India Act,1988. It is responsible for the development, maintenance and management of National Highways entrusted to it and for matters connected or incidental thereto. The Authority was operationalisedin February, 1995.
Indian Railways	Railways	The Indian Railway is a State owned national rail transporter. It is owned and operated through the Ministry of Railways under the Government of India.
IWAI	Inland Waterways	Inland Waterways Authority of India, constituted in 1986 is responsible for the development and regulation of Inland waterways for shipping and Navigation. It primarily works through grants from the Ministry of Shipping.
MoPNG	Petroleum & Natural Gas	Ministry of Petroleum & Natural Gas is the Ministry of the Government of India responsible for exploration, production, refining, distribution, import, export an dall other operations services relating to Petroleum and Natural gas
DIPP	Industrial development	The Department of Industrial Policy & Promotion of the Government of India was established in 1995. In 2000, it was reconstituted with the merger of the Department of Industrial Development with Ministry for Small Scale & Agro & Rural Industries & Heavy Industries and Public Enterprise.It is responsible for formulationof policies and implementation of industrial growth.
Ministry of Tourism	Tourism	The Ministry of Tourism under the Government of India is nodal agency for the formulation of national policies and programs and for the co-ordination of activities for the development and promotion of tourism in the country.

Source: Compiled from various sources

AMBITIONS VS. REALITY

A CRITIQUE OF SAGARMALA

THE PLANNING PROCESS

The Sagarmala Programme was first conceptualised in 2003 during the NDA-I government under the Prime Ministership of Shri. Atal Bihari Vajpayee as a way of comprehensive planning for coastal land related matters with Central control. It also aimed to reduce the cost and time associated with transport of goods and benefit export-import, with an emphasis on developing inland waterways. In 2003, the plan required Rs. 1, 00,000 Cr over a period of 10 years to operationalise. With UPA regime coming to power, the plan was set aside until 2014 when the NDA Government under Mr. Narendra Modi picked it up and repackaged it as one of their flagship programmes. By June 2014, the Ministry of Shipping was made the nodal agency for the Sagarmala Programme and the Union Cabinet approved the plan on 25th March 2015. To put the plan into operation, a consortium of Multinational companies, McKinsey and Co. and AECOM were hired as consultants. While McKinsey & Co. is a strategy consultant, AECOM[11] specialises in infrastructure solutions. By April 2016, the National Strategic Plan of the Sagarmala was unveiled during the Maritime India Summit and reports on different components in 6 volumes of Final Report for Sagarmala dated November 2016 were made public.

CHRONOLOGY OF EVENTS

2003	Government announces Sagarmala plan, does not take off
9th Jun 2014	Decision to make Ministry of Shipping the nodal ministry for Sagarmala initiative is taken
27th Nov 2014	Deliberation on plan by Cabinet of Secretaries and MoS. In principle approval sought
19th Feb 2015	Note for cabinet submitted by Ministry of Shipping
25th Mar 2015	Sagarmala plan approved by Union Cabinet
15th May 2015	McKinsey & AECOM selected as Strategy & Programme Management Consultants to provide analysis on infrastructure and port-led development in India
10th Jul 2015	Indian Port Rail Corporation (IPRCL) incorporated for rail related connectivity projects for Major Ports
14th Apr 2016	The National Perspective Plan (NPP) released at Maritime India Summit 2016
20th Jul 2016	Cabinet approval for the Sagarmala Development Corporation Limited (SDCL)
31st Aug 2016	SDCL is incorporated. Government invites public comments, online, on the Sagarmala Reports
Jan & Mar 2017	Sagarmala Posts, newsletter on the Programme by the Ministry of Shipping, released

[11]AECOM is already involved in infrastructure planning in coastal zones and corridor projects such as the Dholera SIR, Dhamra Port and the Sea Bird Project- a naval air base in Karwar.

Newspaper reports suggest that McKinsey & Co. was paid a whooping Rs. 29 Cr for the tender and compiled the report in a span of 6-12 months[12]. Interestingly, a concept note from 2014 by the Ministry of Shipping, before any strategy planning takes place outlines the fundamentals of the plans as described in the Six volume report of McKinsey.

The actual process of planning, and a clear mandate for the Sagarmala plan are not available in the public domain. What is known is that the terms of reference for consultants as indicated in the report were to: **'provide fact-based analysis and insights from best practice around the world into potential future trends in container shipping, options for infra-structure and potential approaches to financing ports development[13]'.** The planning document – referred to as the Final Report above, is a six-volume report, which can be accessed online at sagarmala.gov.in

FINAL REPORT FOR SAGARMALA, PREPARED BY MCKINSEY & COMPANY AND AECOM INCLUDES:

- Volume 1: Report on origin and destination for key cargo commodities, capacity enhancement report on major ports, New port sites identification and master plan
- Volume 2: Perspective plan for port led industrial development of coastal economic clusters
- Volume 3: Report of financing plan, structure of governance for the Sagarmala Project and the National Perspective Plan (NPP), report on Project Management Office Structure
- Volume 4: Master Plans for six Major Ports (Chennai Port, Cochin Port, Kamarajar (Ennore Port), Jawaharlal Nehru Port (JNPT), Kandla Port & Kolkata Port
- Volume 5: Master Plans for six Major Ports (Murmugao Port, Mumbai Port, New Mangalore Port, Paradip Port, V.O Chidambaranar Port, Vishakhapatnam Port)
- Volume 6: Technical Notes and Techno-Economic feasibility reports and technical reports for 12 projects, including six new greenfield ports as identified

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[12]McKinsey hired for Sagarmala Project, Nirbhay Kumar, Financial Chronicle, May 2015 - http://www.pressreader.com/india/financial-chronicle/20150508/281573764260922
[13]Introduction in Final Report by Consultants

But the timeline of studies, the details of tender floated, McKinsey's methodology and sources used in the report, etc. are unclear. Any information on the process followed by the Government after the consultants submitted the plan is completely missing. While news reports and Government presentations available online indicate that the Union Cabinet deliberated the proposals before passing the plan – what exactly this process of consultation was, is unclear. Whether any vetting of the projects took place after the recommendations by the consultants is also unclear from information in the public domain. Online information and news articles indicate that workshops took place with 'stakeholder' departments, universities and private industry bodies. For example the Association of Multimodal Operators of India (AMTOI), a non-government body consisting of experts from the shipping industry, might have been consulted[14] –suggesting that other industry affiliated bodies also might have been consulted prior to final formulation or launch of the Sagarmala Programme. **But no consultation** with any representatives of **to-be-impacted coastal communities** was conducted, according to the information available in the public domain.

- The details of the Sagarmala plan come from a range of different sources, primarily including:
- The Final Report on Sagarmala (Vol.1 to 6),
- Government documents (different ministries and departments)
- Press releases from the Press Information Bureau (PIB),
- Information and media releases available on the official website of the Sagarmala,
- Reports from government sources or agencies uploaded online, and
- Parliamentary Standing Committee Reports

Asides from these, newspaper articles, opinion pieces and analysis in maritime and shipping or infrastructure related portals contain piecemeal information and speculations on the Sagarmala Programme. After having scoured through these different sources, **it became evident that reliable and authentic information about the plan, its projects and financing, is not available.**

It must also be mentioned here that even within available information there is no consistency to the facts and figures that are being thrown about under the name of the Sagarmala Programme.

No comprehensive listing of projects is available within the National Perspective Plan or any other Government communication after the Final Report by the consultants. Volume 1,2,4,5,6 of the Final plan, which run into thousands of pages identifies areas, regions and suggests projects based on McKinsey's analysis and projections, but no clear indication of the basis, sources or methodology of analysis is present. The six volumes, while listing specific projects, some identified as priority, do not clearly indicate concrete plans, information on financing or a timeframe of implementation. Information on financing and implementation of individual projects even for projects that are in the process or have been purportedly completed under the Programme are not available.

It is possible that implementation plans were not part of the TOR, but this could not be confirmed, as terms of reference are not known. Limited information is available on what projects have been implemented between 2015-2017 and also what projects are planned for the future. A list of projects under the plan and those reported as ongoing has been compiled for interested readers and attached as annexures. Overall these issues not only indicate a lack of transparency, but also point to poor planning.

[14] Presentation on state level meetings on the Programme can be found on their website with a section titled Stakeholder session, details of which are not available., Consultation meetings for Sagarmala Project kick off from Gujarat, Business

A Department-Related Parliamentary Standing Committee Report on Transport, Tourism and Culture (2017-2018)[15] of the Rajya Sabha, Parliament of India (PSC), to the Ministry of Shipping reaffirms this concern noting that, 'the Ministry of Shipping did not do the necessary ground works before listing the projects (under the Sagarmala Programme) and making allocation for them. As a result thereof, the projects are struggling at initial stages itself due to want of required clearances. The Committee recommends that allocations should be made to all projects after getting necessary basic clearances for commencement of the projects[16]'.

In such a scenario, the information contained in this section, including the finance section below, has relied primarily on official communications about the plan, cabinet reports and the six voluminous volumes as prepared by the consultants for figures regarding the Sagarmala. It has to be stated at the outset that even across these limited sources, the information is confused; the terminologies differ, figures and tables change form and the long-winding analysis only seems to deter any clarity. Inconsistencies in the Final Report and other Government documentation make the planning suspect and hence the Programme as a whole is also difficult to gauge. For example, on one hand detailed reports were prepared for expansion in major ports, including Kolkata Port and in another report on the feasibility of the new Sagar Port, it is clearly indicated that the port is feasible only if 'no expansion in container handling capacity at Kolkata Dock Systems' and 'limiting Greenfield investments in Haldia port complex; to create overflow for Sagar Port'. Financial inconsistencies have been detailed in the section on finances.

Adding to such issues is the fact that clearly the **Sagarmala programme has undergone modifications in the six months between when the consultant submitted their report and when the plan was approved and formally launched. Two clear changes are that the number of projects increased from 397 to 415 and the estimated cost jumped from approximately 4.5 lakh crores to 7.985 lakh crore.** An increase in number of new ports from 6-7 have taken place, but what these new additional projects are and the rationale behind the doubling of the estimated cost is not present anywhere. One wonders whether this confusion exists because the government itself is not quite sure and whether the consulting agency was pragmatically fulfilling a given mandate. Considering these limitations, the project details represented in this section as well as in the Annexure 1 of this study are incomplete. Presented below are some questions and observations that arise from a reading of the available documentation. We hope that these will help readers working on coastal infrastructure in further investigations.

SAGARMALA AS A BRAND

Rather than being a programme per say, Sagarmala denotes an umbrella terminology to indicate a range of infrastructure, manufacturing and industrial projects across the country. **Many of the projects branded or pitched publically under the Sagarmala were conceptualised and became operational before the programme was launched**. Similarly, plans under Sagarmala, as shown in the table above will be implemented by a range of different existing and new implementing agencies and Government Ministries. **By combining it with Blue Economy, it also aims to attract foreign investment, making it more attractive to international investments.**

A reading of available documents indicate that apart from the projects that are planned within the Programme, independent projects can either be

[15] 247th Report, Demands for grants (2017-18) by the Ministry of Shipping. March 2017. Department-related Parliamentary Standing Committee on Transport, Tourism and Culture. Rajya Sabha Secretariat. New Delhi.
[16] The Ministry of Shipping reported that four projects - flyover at Cochin Port Trust, NW4 between Muktyala and Vijaywada, NW5 between Erada and Padnipal and Jal Vikas Marg could not achieve the set targets

identified to become part of the Programme or can possibly apply for funds under Sagarmala and thereby become part of the Programme. Sagarmala here becomes a packaging sold to investors and as political packaging for the public, or a jumla in colloquial terminology. The Programme, it seems, is being run like a branding exercise. In the document on guidelines for funding under Sagarmala, point 7.2 states that **'All projects receiving funding support from Sagarmala Programme must display Sagarmala logo prominently in the site locations and acknowledge that the project is developed under Sagarmala and in all project related documents and branding material'.** So, if a railway line or road-project accesses even a small percentage of funds under Sagarmala, it becomes a Sagarmala Project! Considering such an evolving strategy, pinning down exactly what the plan includes is obviously meant to be difficult. Various sections of the Final Report stress upon the role and need for creating a brand, media strategy and other forms of marketing.

ECONOMIC RATIONALE BEHIND SAGARMALA

The Sagarmala Programme rests on three specific aspects of reducing costs. Firstly that smarter and mixed mode of transport is more cost efficient, which in itself is most definitely true. But this does not take into account additional and continuing costs to make logistics fit for use. Inland waterways here are the clearest example. The report while considering the trajectory of inland shipping in China, does not take into consideration the challenges in making rivers in India navigable or assess why the prior plans for inland waterways have not taken off in the last 30 years. It also does not seem to take into account adequately the expenditure necessary to create infrastructure - for example, that regular dredging of Inland waterways which is set to cost upto Rs.12, 000 Crore[17] annually . Similarly, the railways authority has also been expanding its own capacity in expanding freight and has fallen short of its freight loading target in both steel and coal[18], a commodity prominently featured in the reports, but how this will be impacted by Sagarmala plans is unclear.

The Programme is also based on the **assumption that the manufacturing** of goods will take place at par with growth in industry in manufacturing, be it in coastal zones or elsewhere. This assumption, which suggests an equal trajectory between infrastructure and manufacturing, is also problematic as various factors point to a slump in manufacturing and industry. For example, concerns have been raised about the success of Make in India, with investors such as General Electric who were touted as a key initiative under the programme withdrawing because of policy changes[19], the slump in the power sector, with private power projects running into losses[20]and challenges with executing Public Private Partnership projects[21]. This apprehension seems to be partially shared by the PSC in the report referred to above, in context to port expansion, as it writes that **"the Committee with a little dismay, has noticed that the cargo growth is not up to the mark as per the figures given in the beginning of the 12th Plan period. The Committee notes that the growth of cargo traffic by Major Ports are not commensurating with the port capacity additions".** Along with this, questions have also been raised about why the government is planning to build 6-7 new ports, instead of focusing on building a deep-sea port that can handle larger container vessels[22].

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[17]Mercator eyes slice of Rs.12 K- crore dredging job under Sagarmala initiative, Business Standard, September 2017
[18]Factors Impacting Railways Freight Traffic in India, NCAER. 2016
[19]View: Make in India is looking more and more like a bad joke, Abheek Barman, Economic Times, October 2017
[20]Gujarat Government may take over Tata, Adani and Essar Power Plants, The Wire, October 2017
[21]PPP Projects at major ports at risk of running aground, Hindu Business Line, September 2017
[22]A costly necklace of Ports, Shankar Kumar, Governance Now, August 2017

The third premise of the programme seems to be of moving industrial sectors such as coal, steel, petro-chemicals and manufacturing of products such as leather, apparels, furniture etc. (some of which are highly polluting industries) to the coast near port regions. The Sagarmala Programme then shifts a seven decade-long developmental planning model that located manufacturing clusters near resource-rich regions. **Adequate debate or study to assess the implications of the same has not taken place in the public domain.** Moreover, the PSC re-port, mentioned above, points out that "India's inter-nal trade has a much higher dimension than its international trade. The Committee therefore desires that there should be a holistic coordinated approach needed for handling of trade within the country as well as towards openings to the external trade". This points to a major fallacy in the planning document in its emphasis on port led growth. Again, to reiterate, while port- led growth in itself is not being critiqued, the single emphasis on merging all forms infrastruc-ture towards one particular end is not good planning.

This then brings us back to the point that Sagarmala might not just be an umbrella, **but is acting as an aggregator that brings projects under its ambit and pushes industrialisation towards coastal zones.** In line with such an assumption, almost 52.7 per cent percent of the estimated expenditure in the plan is for port-linked industrialisation[23]. The plan assumes that coastal zones will manufacture products to ensure that manufacturing matches logistics growth, but this seems like an ideal case scenario, where other factors that influence investment and project implementation have not been taken into account, be they financing or clearances required or democratic due processes to be followed for land acquisition.

Any large-scale infrastructure project also assumes an ease of doing business and the Final Plan also recommends that the government make the same a priority. An initial report by the Ministry of Shipping from 2014 indicates assessing the scope of privatisation of infrastructure and industry as a premise that has not been spelt out explicitly in the National Perspective Plan. While the different forms of privatisation are a clear recommendation, there is no assessment of the success and failure of past privatisation of projects on which this assumption is based. The different volumes in the Final plan suggest similar 'key enablers' in various places - a common recommendation across different parts of the final plan are, as the report **states "It (the Sagarmala Program) requires encouraging and in-centivising private-sector investment through PPP models for port infrastructure, railway infrastruc-ture and coastal shipping[24]** [see following paper on the Vizhinjam Port for more details on how PPP pro-jects are being implemented]. These nuances call for the ownership and involvement of all communities that stand to benefit from the initiative". Clearly, con-sidering that the people of this country, particularly coastal, fishing communities, do not stand to benefit from the plan, they are not the above mentioned 'communities'.

Another key issue that arises with a reading of the Sagarmala Programme as we know it is the context setting and focus of analysis. In its choice of consultants[25]and the terms of reference, the focus is on international best practices, **but if this is the only plan that identifies actual projects and their rationale, at what point were local political economies taken into context?** The TATA Kalinganagar Steel project is referenced, but why the project has still not taken off has not been spelt out. Coast based steel clusters have been rec-ommended, but why the POSCO project in Odisha was finally withdrawn is not considered.

[23]See table No.7 in the following finance section
[24]Vol. 2 & 3, Final Report, McKinsey & Company
[25]Port tender gives local consultants short shrift, Livemint, P. Manoj, June 2016

A common sense reading of the report suggests that only selective data, pertaining to key sectors, have been considered. But the plan denotes a structural shift in the economy of India, while not taking into consideration the economy and its various components in entirety. It begs the question as to why exactly this Report was even prepared and in what way the government is intending to use it. All in all, the report portends huge changes, which have not been understood fully. On what basis have these plans been approved and what exactly has been concretised before Sagarmala was pushed into implementation and allocated a share of the budget?

PROPOSED LEGISLATIVE CHANGES THROUGH SAGARMALA

Four specific areas in which the Final Report have made recommendations for legislative changes to the Government/ Ministry of Shipping that we would like to stress on are given below. These have implications for current democratic due processes regarding community consent, environmental protection and legislative procedures, as whole. It also raises questions of delegating the governance role to private entities and SPVs operating the planned projects, particularly in the case of CEZs.

Moreover, certain recommendations in the Final Report by McKinsey & Co. are already materialising as policy or legislative changes, hinting at a relationship between the two. Considering these factors, a concrete look at some of the legislative changes from an environmental, livelihood and pro-people, pro-community perspective is necessary. Some the recommendations from the report are as follows.

Regarding Major Ports :

- Shifting from a service port to landlord port model in accordance with international practice: such talks are already taking place, as per newspaper reports, with the Indian Ports Association also making similar recommendations to the Government and the Major Ports Authorities Bill is to be introduced in the Parliament by the Shipping Ministry.
- Increasing private berths within major ports: One of the recommendations is revisiting the Tariff Authority for Major Ports (TAMP) under the Ports Trust Act, which regulates port tariffs, user charges and scale of rates in major ports. The Ministry of Shipping has proposed to amend the Major Ports Trust Act so as to do away with TAMP and tariff regulations in major ports. As per the amendment, the Trust Boards would fix reference tariff for bidding purposes. Subsequently, the PPP operators would be free to fix market-oriented tariff. The amendment is currently awaiting cabinet approval.

Land acquisition for Coastal Economic Zones:

- Fast track port-led industrialisation, using port land for industrial use and utilising existing land parcels with state government and private bodies, to circumvent new acquisition of land
- Create land banks[26] and introduce the monetisation of land where State Governments can contribute land as equity.
- Amend the Special Economic Zones's (SEZ) Act 2005 to include qualifying CEZs &
- Empower SPV's formed for CEZs to acquire land

Governance of Coastal Economic Zones :

- Offer special administrative regime with single window clearance with special provisions regarding approval, clearance, inspection, labour regulations, fiscal incentives, currency exchange and repatriation

[26]Aggregating land parcels for future sale or development – whereas land monetisation indicates a purely economic valuation of land on the basis of which income can be generated.

- Leverage provisions of the constitution and state laws to delegate administrative power of municipal and town and country planning to the SPV constituted to operate the CEU
- Create an 'investor friendly inspection regime' in CEU demarcated areas.

Coastal Regulation Zone:

- The report writes that 'coastal regulations are currently followed indiscriminately' and suggests that CRZ regulations need to be revisited on the basis of occurrences of tidal variations, with differentiation on the East and West Coast. It also suggests 'flexibility on exemptions and exceptions on a special case basis'. Coincidently, a single window clearance for CRZ was introduced in early 2017.

Even if all the above questions have adequate answers, what remains unsaid is the impact that such a 'mega-modernisaton'[27] will have on coastal communities and ecology. No real consideration of the existing fisheries ecosystem-economic or social-has taken place. The impact of such coastal industrialisation on the already degraded coastline of India and coastal communities has not been assessed in any of the reports so far. Considering that 45 percent of the coast is already occupied by industry, even the physical space for such expansion is suspect. The literature on Sagarmala has two answers to this; as a press release by the Ministry of Shipping **states 'The primary goal of the Skills and Livelihoods in Sagarmala is to meet the exact skill needs of industries in the port and maritime sector and provide the coastal communities right skills for better opportunities emanating from the large scale impact of Sagarmala projects.'** This, in essence, would mean shifting the occupational pattern of the coast and community, without any form of consent or consultation. To supplement this Nitin Gadkari, Minister of Shipping & Ministry of Roads & Highways, said that "the Centre is planning to facilitate fishermen with mechanised trawlers that will allow them to fish till 30-40 Nautical Miles in international ocean". Does this indicate that the government has accepted the destruction of the coastal ecology as inevitable? Does it assume that communities living on the coast can be convinced to transition into deep-sea fishing as an alternative?

SOME QUESTIONS

In a time when the need for decentralised local governance is being demanded from across the country, the Sagarmala Programme displays the opposite model of governance. If till the 1990's the State Governments had the primary role, **today the bureaucracy is in charge of a centralised model of planning**. While the official language of Sagarmala emphasizes on 'cooperative federalism', the programme is rather, a threat to the federal structure of the country. A number of questions arise that need further debate and discussion– what was the planning process involved in creating the mammoth project? On what basis, with what methodology have project consultants created the analysis? On what basis have the recommendations been measured for veracity and compared with other plan and analysis across other sectors as well as employment patterns across the country? On what basis did the government approve or disapprove the recommendations of the consultant? Did any discussion on the Programme and its implications take place in the Parliament? What process did the Government undergo to finalise the plan? With whom did consultations take place at this stage? Considering the interconnectedness of the different components of the programme, on what basis has viability of separate projects been decided?

[27]Sagarmala- DDUGKY Convergence for Skill Development in Coastal Districts – Sagarmapa Press Release May 2015

Were the Ministries of Environment and Forest or the Ministry of Tribal Affairs consulted in deciding locations of the industrial clusters or connectivity projects? Were any local governance mechanisms consulted or was the plan decided solely based on industry recommendations (public and private)? Were any coastal communities who actually inhabit the coast and for whom coast-based resources are the only source of livelihood consulted in the process? Where are the coastal legislators and the Parliamentarians from the different coastal states in these processes? Was there any cost-benefit assessment of new industries planned in relation to already existing livelihoods in the regions?

FINANCIAL PLAN OF THE SAGARMALA PROGRAMME

The section most pertinent to finance in the Final Report for Sagarmala[28] is the Report on Government Imperatives including Financial Plan[29]which is dated June 2016 and is part of volume 3 of the six volume series. According to this report, the Sagarmala Programme includes 397 projects with a projected cost of "roughly INR 4,50,000 Cr". Of the 397 projects, 111 are already under implementation and 203 more (focus projects) will be taken up for implementation by 2020. The finances for the 203 projects amounting to approximately INR 2,86,00 Cr are yet to be identified. The remaining 83 projects (long term projects) are to be taken up for implementation post 2020. A break-up of the estimated project cost for the three categories of projects are provided below :

TABLE 6: PROJECT BREAK-UP AND COST UNDER SAGARMALA PROGRAMME

CATEGORY	NUMBER OF PROJECTS	COST IN INR (CR.)
Projects under Implementation	111	59,430
Focus Projects (to be taken up by 2020)	203	2,86,593
Long Term Projects (to be taken up after 2020)	83	1,02,189
Total	397	4,48,212

Source: Report on Government Imperatives including Financial Plan

The programme is to be implemented over 20 years between 2015 and 2035. However, given the track record of implementing projects in the last 2 decades and inflation rates, there is no guarantee that the projects, if and when they are implemented, can be completed within the cost projected at present.

In fact, the January 2017 Sagarmala Post, the first edition of a newsletter for updates on the Sagarmala Programme brought out by the Ministry of Shipping, states that the Programme has 415 projects with an estimated requirement of INR 7,98,500 Cr. Even if we were to accept the increase in number of projects from 397 to 415 within a couple of months as near marginal, how do we account for the near doubling of the estimated cost from INR 4,48,212 Cr in November 2016 to INR 7,98,500 Cr in January 2017? Predictably though, the Ministry of Shipping provides no rationale whatsoever for the mind numbing increase in estimated cost by 78 per cent.

A closer look at the figures (presented in Table 6 and Table 7) indicates that the steepest jump in cost is for the long-term projects that are to be implemented post 2020. As of November 2016, 83 projects were to be implemented at a cost of INR 1,02,189 Cr which changed to 95 projects at a cost of INR 4,05, 098 Cr in January 2017, indicating a 300 percent jump in cost for nearly the same number of projects.

The January 2017 Sagarmala Post provides data on phase-wise implementation of the projects within the four broad categories of port modernisation (including new ports), connectivity enhancement, port-linked industrialisation and coastal community development, along with their estimated project costs. As per the phase-wise project break-up and cost, 17.8 per cent of the total cost is towards port modernisation, 28.8 per cent is towards connectivity

[28]Final Report for Sagarmala – Vol. 1 to Vol. 6. November 2016. Ministry of Shipping & Indian Ports Association.
[29]Report on Government Imperatives including Financial Plan – Sagarmala, June 2016. Volume 3 of Final Report for Sagarmala, November 2016. http://sagarmala.gov.in/about-sagarmala/sagarmala-reports

TABLE 7: PHASE-WISE PROJECT BREAK-UP AND COST UNDER THE SAGARMALA PROGRAMME

S. NO	PROJECT THEME	FY 15-16		FY 16-17	
		#	PROJECT COST (Rs. Cr)	#	PROJECT COST (Rs. Cr)
1	Port Modernisation	62	27,700	46	22,670
2	Connective Enhancement	30	15,881	58	29,924
3	Post- Linked Industrialisation	2	325	1	3,000
4	Costal Community Development	4	49	4	529
Total		58	43,985	109	55,123

S. NO	PROJECT THEME	FY 17-18		FY 18-19	
		#	PROJECT COST (Rs. Cr)	#	PROJECT COST (Rs. Cr)
1	Port Modernisation	13	2,193	20	35,512
2	Connective Enhancement	28	16,641	26	139,715
3	Post- Linked Industrialisation	2	5,000	17	94,426
4	Costal Community Development	3	119	4	688
Total		46	23,953	67	270,341

S. NO	PROJECT THEME	FY 19-20 TO FY 24-25		FY 25-26 TO FY 34-35		TOTAL	
		#	PROJECT COST (Rs. Cr)	#	PROJECT COST (Rs. Cr)	#	PROJECT COST (Rs. Cr)
1	Port Modernisation	27	26,588	21	28,165	189	142,828
2	Connective Enhancement	17	21,182	11	8,233	170	230,576
3	Post- Linked Industrialisation	11	318,130	-	-	33	420,881
4	Costal Community Development	8	2,800	-	-	23	4,216
Total		63	368,700	32	36,398	415	798,500

Source: Sagarmala Post, January 2017

As is with other information, financial data on projects within the Sagarmala Programme is widely inconsistent between the few documents available in the public domain. Available information barely gives a sense of how the 400-odd projects are going to be implemented. **So far, the government has not come clear on what comprises the 111 projects that are being implemented, the 203 projects that are to be implemented by 2020 and the 83 projects that are to be implemented post 2020.** The Final Report for Sagarmala throws out financial figures for sets of projects - some actual, many planned and most estimated: that do not seem to add up to a bigger picture.

WHAT IS THE FINANCIAL PLAN FOR THE SAGARMALA PROGRAMME?

There is no clarity at present on where the estimated cost of the entire programme is to come from and this section merely attempts to lay out available information.

The Report on Government Imperatives including Financial Plan, states that the Sagarmala Programme required investment from different stakeholders including the Ministry of Shipping, Ministry of Commerce, state governments, central agencies and investment from the private sector, through PPPs. Available information, including within the same document, establishes that this is only a partial listing.

Dollar-denominated loans and development finance: As for external investment, the report supposes that given the high levels of non-performing assets in Indian banks, the Sagarmala Programme will be required to find “alternative and innovative financing models” to finance the “large shelf of projects”. However, the section on the alternative and innovative financing models is limited to discussing dollar-denominated loans and development finance. The report states that dollar-denominated loans are to be raised for major ports; given their income in multiple currencies, the 11 major ports in India have a potential to raise INR 18,000 Cr through dollar-denominated loans. And other projects (such as port facilities to increase cargo-handling capacity, construction of berths, technical assistance in preparation of master plans, maintenance activities to extend life of port and enhance safety and efficiency of operations) can potentially attract development finance in the form of loans and grants from International Finance Institutions (IFI) such as World Bank, Asian Development Bank, Japan International Cooperation Agency (JICA) and China EXIM Bank. The report emphasises that the Sagarmala Programme must utilise the low interest rate of 1.5 to 2.5 per cent on such loans as compared to the 12 percent interest rate on loans from the domestic and capital markets.

However, both dollar-denominated loans and development financing are being suggested only for port-related projects, which accounts for just 18 per cent of the total estimated project cost of INR 7,98,500 Cr.

- Jawaharlal Nehru Port Trust, Maharashtra raised[30] a dollar-denominated loan of USD 400 Million from a consortium of State Bank of India and Development Bank of Singapore at an interest rate of 3.15 per cent in August 2016.
- Adani Ports & SEZ raised[31] USD 500 Million through dollar bonds in January 2017 and announced plans to raise another USD 500 Million in June 2017.
- Kamarajar Port Trust, Tamilnadu is set to raise[32] USD 100 Million from Axis Bank at an interest rate of 3.15 per cent.
- In June 2017, the board of Kandla Port Trust, Gujarat approved plans to raise dollar-denominated loans to fund expansion plans. Similar plans for Tuticorin Port Trust, TamilNadu and Paradip Port Trust, Odisha have also surfaced.

Whilst ports do generate dollar denominated revenue, it is important to note that it is only a portion of the total. For instance, Mumbai Port Trust's dollar denominated revenue in 2014-15, the highest among Indian ports, was INR 399.84 Cr or USD 61 Million, which is 26.5 per cent of its total operating revenue of INR 1508 Cr. Kamarajar Port's dollar denominated revenue for the same year was INR 111.33 Cr or USD 17 Million, which is 20 percent of their total operating revenue of INR 566.44 Cr. Additionally, several case examples[33] tell us that dollar denominated loans come at a risk and can have negative impacts if and when the dollar appreciates in value.

In this regard, Dr. K. C. Chakrabarty, the former Deputy Governor of the Reserve Bank of India sounded a warning bell in 2013. "Indian corporates, operating in India and abroad, have been increasingly accessing international debt markets to raise capital. While this is presumably being done to take advantage of the low interest rate in the international markets, in an environment of fluid exchange rate markets, corporates run the risk of incurring losses from adverse movement in exchange rates for their un-hedged exposures." [34]

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[30]Jawaharlal Nehru Port Trust Signs Agreement for ECB worth $400 Million with State Bank of India and Development Bank of Singapore. 23 August 2016. Press Information Bureau. http://pib.nic.in/newsite/PrintRelease.aspx?relid=149130
[31]Adani Ports to raise at least $500 million by selling dollar bonds. 20 June 2017. The Economic Times. https://economictimes.indiatimes.com/markets/stocks/news/adani-ports-to-raise-at-least-500-million-by-selling-dollar-bonds/articleshow/59234265.cms
[32]Kamarajar Port picks Axis Bank to raise $100-million loan to fund expansion. 21 July 2017. The Business Line. http://www.thehindubusinessline.com/economy/logistics/kamarajar-port-picks-axis-bank-to-raise-100million-loan-to-fund-expansion/article9783970.ece
[33]In January 2013, when Reliance Power filed for revision of tariff for power for its 4000 MW Sasan Power Limited with the Central Electricity Regulatory Commission, it stated that the project was affected by a change in law and depreciation of the rupee.
[34]Two Decades of Credit Management in Indian Banks: Looking Back and Moving Ahead. Dr. K. C. Chakrabarty, Former Deputy Governor, Reserve Bank of India. 16 November 2013.

Public-Private Partnerships: The third stress in the financing model is the use of PPPs; envisioning "tapping the power of PPPs in India's port sector". The Final Report for Sagarmala argues for converting the major ports, which are currently state-owned, to landlord ports operating under the PPP model. Currently, out of the total 240 berths in major ports, 66 are PPP owned and 174 are state owned. This argument for greater role of PPPs in ports does not however bank on good reason or the performance of the existing PPPs in the sector. In fact, it does not even assess the performance of the PPPs in the sector in the last decade. Merely listing the various challenges that PPPs are facing such as imbalanced risk-sharing, rigid concession agreements, inadequate project preparation, tariff risk & multiple tariff for same cargo at same port and lack of financial capacity of developer and then making recommendations to ease the challenges is not a convincing argument for advocating more PPPs.

A September 2017 report[35] by the Business Line states that there are "problems in every PPP project" in major ports, which are threatening to "run aground contracts worth thousands of crores of rupees". The Kandla Port Trust has scrapped two PPP projects claiming that RAS Infraport Pvt Ltd and IMC Ltd "were not paying the contractually mandated revenue share", while "the PPP operators allege (that) the port trust did not give them rail connectivity and water depth on time". Additionally, M. T. Krishna Babu, Chairman, Vishakapatnam Port Trust, has stated that four PPP projects, operated by Sterlite Ports, ALBA Asia, Vizag Seaport and Adani Ports and SEZ in Visakhapatnam Port Trust "are under stress from rate issues and other tender terms, which could force termination in some cases". According to a former head of a PPP terminal, "the blame for the crisis has to be shared – among port trusts (the Central government) and the bidders. But it is the consultants who made the detailed project report who are mainly responsible".

Another piece of information that supports this inference is in a table in the same report. For the 203 focus projects that are to be implemented by 2020 (refer Table 8), the total cost of INR 2,86,760 Cr, with the exception of INR 26,500 Cr, is broken up between what can possibly be sourced from private investment through PPPs and what can be sourced through internal resources. While there is no explanation of what constitutes internal resources, one can assume that it will come from the central/ state government/ agencies. The data reveals that 58 per cent of the total cost is to come from internal resources and 29 per cent through PPPs. The table also informs us that the bulk of the PPP-able projects are in the category of new ports, port expansion, highways and industrial clusters. Or rather projects with greater potential to generate revenue within shorter timeframe. A slightly more recent report[36] presents similar information for 200 projects in the focus category. The estimated cost for the 200 projects in the focus category is INR 3,32,345 Cr, of which INR 87,255 Cr or just 26 per cent is to come from PPPs and INR 2,45,090 Cr or 74 per cent is to come from Central and State Ministries.

[35]Report on Government Imperatives including Financial Plan-Sagarmala, June 2016
[36]The Big picture. Sagarmala – Ports to Prosperity. Sepetember 2016. Ministry of Shipping. http://sagarmala.gov.in/sites/default/files/Sagarmala%20the%20Big%20Picture.pdf

TABLE 8:
FUNDING NEEDS AND MODELS FOR THE 203 PROJECTS TO BE TAKEN UP BY 2020

S.NO	AGENCY	SECTOR	FINANCING (INR IN CR)	FINANCING PLAN THROUGH INTERNAL RESOURCES	THROUGH PPP
1	Major Ports Trust	54 port Expansion projects	19,000	5,000	14,000
		7 new mega ports	31,000	15,500	15,500
		6 internal road projects	460	460	-
		3 internal rail projects	145	145	-
		2 Coastal economic units	5,000	3,000	2,000
2	Indian Railways	6 rail projects	12,800	12,800	-
3	National Highways Authority of India (NHAI)	25 highway projects	16,000	11,000	5,000
		10 expressways	1,25,000	80,000	45,000
4	Inland Waterways Authority of India (IWAI)	3 waterways projects	7,515	7,515	
5	Ministry of Petroleum & Natural Gas (MoPNG)	2 refinery projects	8,400	8,400	-
6	Container Corporation of India (CONCOR)	2 multimodal hub projects	170	170	
7	Indian Port Rail Corporation Limited (IPRCL)	1 road project	350	350	
		22 rail projects	11,000	11,00 0	
8	Department of Industrial Policy & Promotion (DIPP)	12 discrete clusters	34,000	24,000	
		1 CEU	2,500	2,500	
9	Tourism	2 tourism projects	120	120	
10	SDC projects	37 projects	7,500	5,500	2,000
11	Other state projects including private port projects	8 projects	5,800	5,800	
	TOTAL	203	2,86,760	16,67,60	83,500

Source: Report on Government Imperatives including Financial Plan

Sagarmala is being used as a platform to revive the failed Public Private Partnership (PPP) model in India. Idealised in theory as a means to tap the private sector's profit driven efficiency and flexibility into state sponsored infrastructural projects, the dismal performance by PPPs over the last decade is not only on account of unfavourable market conditions. Mired in bloated bids, contractual defaults, capital shortages, revenue diversions, regulatory irregularities and cronyism, the model has become synonymous with transfer of public wealth to private hands and is a mere "language game" by governments unable to push for privatisation. That enthusiasm from private investors is expected to be lukewarm is evidenced by both currently declining private investment in the economy and the proposed extent of potential state funding in Sagarmala.

The **Report on Government Imperatives including Financial Plan goes no further than making these three broad-based suggestions,** thereby negating that it is in fact even a financial plan. An example of the incompetence of the consultants who prepared this report is the development finance sub-section within the 'alternative and innovative financing models'. It lists the five broad areas (listed above) within the Sagarmala Programme that can possibly attract finance from international development banks and then provides a table of four port related projects (outside India) to which low interest loans were provided by Asian Development Bank and China EXIM Bank. It does not even identify projects within the Sagarmala Programme that may qualify for such financing. Another issue evident in the report is the discrepancy in figures used in different sections. The Executive Summary of the Report on Government Imperatives including Financial Plan states that 75 road projects (of the 203 project focus projects to be implemented by 2020) worth INR 1,50,000 to 1,75,000 Cr will be primarily funded on a 50 per cent basis by National Highways Authority of India. The section on funding plan for each category of projects states that around 55 road projects have been identified for improving port connectivity to major industrial clusters with an estimated cost of INR 1,40,000 to 1,50,000 Cr, 'of which 35 per cent will be financed by the PPP model while remaining 65 per cent will be publicly funded'. Though both may be factually correct, **such discrepancy in the framework in which data is presented provides only a semblance of the total information and amounts to a deliberate misrepresentation of data.**

"This project (Sagarmala) will be a game changer. It will be the biggest project in the history of the country... I don't have any problem with financial resources. We have already appointed an agency to help us raise funds."

- Nitin Gadkari[37]

Minister for Shipping, Road Transport & Highways, and Water Resources, River Development & Ganga Rejuvenation, December 2016

Despite assurances from the government, that there is no financial plan, either with the Ministry of Shipping or with the Sagarmala Development Company, is seconded by the Parliamentary Standing Committee.

"The Committee notes that the Ministry of Shipping has ambitious future plans for carrying out port development work under Sagarmala Project... The Committee desires to know the source of funds with the Ministry to achieve this ambitious target (of INR 7,98,500 Cr investment). The Committee also notes that there are 199 focus projects targeted to be completed under Sagarmala in the next three financial years with an actual cost of INR 3,33,534 Cr. The Committee desires to know details of financial plans with the Ministry of Shipping to generate that much resource within three years to meet the required fund for completion of projects."

- 247th report of the Parliamentary Standing Committee on Transport, Tourism and Culture, March 2017

[37]Nitin Gadkari inaugurates Sagarmala project, says 2 cr jobs set to be created. 27 December 2016. Financial Express http://www.financialexpress.com/economy/nitin-gadkari-inaugurates-sagarmala-project-says-2-cr-jobs-set-to-be-created/487322/

So, the Ministry of Shipping did not even have a financial plan in March 2017 for the 199 focus projects worth INR 3,33,534 Cr that are to be implementing by 2020?

Apart from the Report on Government Imperatives including Financial Plan, there are scattered hints of where the money is to come from. One can broadly assume that that the Programme will access central and state budgetary allocations, funds allocated to or within Ministries (including Ministry of Shipping, Ministry of Commerce & Industry, Ministry of Road Transport & Highway, Ministry of Tourism, Ministry of Rural Development, Ministry of Agriculture and Farmers Welfare), utilise funds from within Public Sector Undertakings (such as National Highway authority of India, Inland Waterways Authority of India, Container Corporation of India, Indian Railways, Indian Oil Corporation, Hindustan Petroleum Corporation, etc), raise loans from domestic and international banks, seek finance from domestic and international development banks, seek private investment through PPPs, and possibly use other sources like the Public Provident Fund. In the context of Coastal Economic Zones (CEZ), monetising of land is another suggestion made to the government in the Final Report for Sagarmala, which simply states that, "States can contribute land as equity"[38]. Another assumption is that a bulk of the finances for the port-led industrialisation component, which is 52.7 per cent of the total cost, will come from the private sector.

WHO IS GOING TO IMPLEMENT THE 400-ODD PROJECTS?

As per the Guidelines for Funding under the Sagarmala Programme[39], "implementation of projects is to be done by the Central Ministries, state government, state maritime boards and the Special Purpose Vehicles (SPV)[40], which may be set up state-level or port-level". To play a crucial role in funding, implementing, and monitoring many of the projects under the Sagarmala scheme, the Sagarmala Development Company Limited (SDCL) was created under the administrative control of Ministry of Shipping[41]. SDCL has been incorporated under the Companies Act, 2013 with an initial authorised share capital of Rs. 1,000 Cr, and a subscribed share capital of Rs. 90 Cr; the entirety of which has been acquired by the Ministry of Shipping. According to the guidelines, the SDCL is to provide equity support to the SPVs and "all efforts are to be made to implement these projects through the private sector and through PPP, where feasible". The primary source of funding for SDCL will be through equity and grants from the Ministry of Shipping, though it can also raise money from financial institutions and the financial market. The financial plan section of the Report on Government Imperatives including Financial Plan also projects that SDCL may receive around INR 1,000 Cr per year for the first 4 to 5 years from the Ministry of Shipping. Apart from being an overseeing authority for projects, the SDCL is tasked with funding and/ or implementing residual projects, i.e. critical projects that are not taken up by any other body. It is assumed that SDCL can identify and implement 20 such residual critical projects, with an average cost of INR 80 Cr each, every year. How this cost estimate is arrived at is unexplained. Even the briefest glance at Sagarmala's funding figures renders the INR 80 Cr cost to be highly deflated when the average cost of a project seems to be around INR 2000 Cr. Costs for projects of critical nature could very well be above the average.

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[38]Report on Government Imperatives including Financial Plan – Sagarmala, June 2016.

[39]Project Funding Guidelines - http://sagarmala.gov.in/about-sagarmala/project-funding-guidelines

[40]SPVs are companies set up to achieve a narrow purpose of executing a single project. Beyond the perks of a supposedly dedicated management, the model is also used to raise funds by leveraging future projected earnings.

[41]247th Report, Demands for grants (2017-18) by the Ministry of Shipping. March 2017. Department-related Parliamentary Standing Committee on Transport, Tourism and Culture. Rajya Sabha Secretariat. New Delhi. http://164.100.47.5/newcommittee/reports/EnglishCommittees/Committee%20on%20Transport,%20Tourism%20and%20Culture/247.pdf

The Guidelines for Funding states that “projects considered for funding under Sagarmala Programme will either be provided equity support (SPV route) from SDCL or funded (other than equity) from the budget of Ministry of Shipping”. The funding from the Ministry of Shipping is limited to a maximum of 50 per cent of the project cost. This cap can be relaxed in case of projects in Union Territories where no other source of funding is available. The equity contribution from SDCL in a project SPV will be limited to 49 per cent of the project equity.

It is likely that, except for possibly the most lucrative or sanitised projects, most projects[42] are reliant almost completely on state funding

TABLE 9: BUDGETARY ALLOCATIONS AND CENTRAL PLAN OUTLAY TO THE MINISTRY OF SHIPPING

YEAR	BUDGETARY ALLOCATION (UN-REVISED) (IN CR)	CENTRAL PLAN OUTLAY* (IN CR)
2013-14	1712.67	7087.30
2014-15	1408.74	4543.32
2015-16	1439.79	4546.53
2016-17	1531.00	4183.14
2017-18	1773.00	5609.42

*Central Plan Outlay includes Gross Budgetary Support (GBS), the direct allocations by the Union Budget to a ministry for a particular plan or project and Internal Extra Budgetary Resources (IBER) which are funds garnered from Public Sector Undertakings via loans, equity or profits.)

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[42] Sagarmala's projects, like most infrastructural projects, would have low returns and long gestation periods and if the most profitable projects were to be privatised, the average time taken for the state to recover its investments from the returns they generate would be proportionately extended.

The Ministry of Shipping informed[43] the Parliamentary Standing Committee that one of the key achievements of 2016-17 was that the Ministry received the "highest ever budget allocation". The budget for Ministry of Shipping includes the following components which overlap with the Sagarmala Programme – developing ports (both major and minor), coastal shipping berths, Sagarmala, Shipping and Ship Building, Inland Water Transport, Directorate General of Lighthouses and Light ships, major port trusts, Shipping Corporation of India, Dredging Corporation of India, Inland Waterway Authority of India. However, it is not possible to determine the exact percentage of the total budget that served to implement projects within the Sagarmala Programme. It is also important to note that many of the projects, now within the ambit of Sagarmala, were planned and also probably received allocations and funding prior to the Union Cabinet's approval of the Sagarmala Programme in March 2015. The allocations made specifically for the Sagarmala Programme within the Ministry's budget are INR 145 Cr in 2015-16, INR 450 Cr in 2016-17 and INR 600 Cr in 2017-18. A Parliamentary Standing Committee report[44]indicates that the funds allocated for the Sagarmala Programme in 2017-18 could be specifically utilised for the purpose of developing Coastal Economic Zones, developing coastal berths, funding unique & innovation projects, the Sagarmala Development Company Limited and for coastal community development projects.

According to a March 2013 report, the Ministry of Shipping informed the Parliamentary Standing Committee that the Ministry had completed preparatory project development work related to modernisation of ports, Sagarmala, coastal shipping including coastal berths, Inland Waterways Transport (IWT) and Andaman Lakshadweep Harbour Works (ALHW). It stated that while the port development and modernisation projects could be implemented from resources allocated to, or within, ports, **other projects within the Sagarmala programme, coastal shipping, IWT and ALHW projects would necessarily require additional budgetary allocation for implementation.**

The Ministry of Shipping is the nodal ministry for the Sagarmala Programme and will account for a bulk of the budgetary allocations towards implementing Sagarmala projects. However, budgetary allocations made to other ministries such as Ministry of Commerce & Industry, Ministry of Road Transport & Highway, Ministry of Tourism, Ministry of Rural Development, and Ministry of Agriculture & Farmers Welfare are also likely to be utilised for implementing projects.

CURRENT STATUS OF PROJECTS WITHIN THE SAGARMALA PROGRAMME

Information regarding the current status of the numerous projects that constitute the Sagarmala Programme is fragmented and scattered. The Ministry of Shipping, in an exceedingly erratic manner, seems to grudgingly dole out data. The Ministry informed[45]the Parliamentary Standing Committee that projects[46]worth INR 1,00,000 Cr are already under various stages of implementation and development and INR 390.12 Cr has been released for 35 projects taken up in 2015-16 and 2016-17. However, a comprehensive list of the projects under implementation along with the relevant details is not in the public domain.

[43]247th Report. Parliamentary Standing Committee on Transport, Tourism and Culture. March 2017.
[44]247th Report. Parliamentary Standing Committee on Transport, Tourism and Culture. March 2017.
[45]247th Report. Parliamentary Standing Committee on Transport, Tourism and Culture. March 2017.
[46]According to the Ministry, this includes "unique and innovative projects such as Gogha-Dahej RO-Pax Ferry Services (INR 117 Cr sanctioned and INR 58.5 Cr released) and RO-RO Services at Mandwa (INR 57.5 Cr sanctioned and INR 43.76 Cr released)".

ANNEXURE 1 – DETAILS OF FINANCES AND STATUS OF SPECIFIC PROJECTS

Port Modernisation and New Port Development: According to the January 2017 Sagarmala Post[47], Master Plans have been finalised for the 12 major ports. On the basis of the Master Plans, 142 port capacity expansion projects, with a total cost of INR 91,434 Cr have been identified for implementation over the next 20 years. Of these 142 projects, 30 projects with a cost of INR 11,612 Cr have been proposed for implementation from 2016-17 onwards. Techno-Economic Feasibility Reports (TEFR) have been finalised for 6 new ports – Vadhavan, Enayam, Sagar Island, Paradip Outer Harbour, Sirkazhi, and Belekeri. A Detailed Project Report (DPR) has been prepared for a new port at Sagar Island[48] in West Bengal and Expenditure Finance Committee (EFC) approval was obtained in August 2016. DPRs for new ports at Vadhavan in Maharashtra, Paradip Satellite Port in Odisha and Enayam in Tamil Nadu are under preparation. The Union Cabinet granted in-principle approval for the port at Enayam in July 2016.

Port Connectivity Enhancement: The January 2017 Post reported that Indian Port Rail Corporation Limited (IPRCL) has taken up 25 rail projects with a total cost of INR 5,284.38 Cr across 9 major ports. "Out of these, 8 works with a total cost of INR 159.24 Cr have already been awarded and 4 more are to be awarded in the remaining part of 2016-17. Out of the remaining 13 works, DPRs have been prepared for 6 works with a total cost of INR 228.01 Cr and are under preparation for 7 works with a total cost of INR 4326 Cr". Of the rail connectivity projects identified under Sagarmala, "21 projects (~3300 Km) with a total cost of INR 28,000 Cr are being taken up by the Ministry of Railways and 4 projects (~151 Km) with a total cost of INR 3,590 Cr are to be taken up either in Non-Government Rail (NGR) or JV model through Indian Port Rail Corporation Limited". Of the 81 road connectivity projects identified under Sagarmala, "45 projects will be done by Ministry of Road Transport & Highways (MoRTH)/ NHAI, including 18 projects under the Bharatmala Scheme. The remaining 36 projects will be done by state Public Works Departments (PWD), port authorities and SDCL in coordination with MoRTH/ NHAI".

The January 2017 Post also reported that the Coastal Berth Scheme has been integrated into the Sagarmala Programme. "Five projects were sanctioned in 2015-16 and INR 70 Cr has been released. 30 proposals are under consideration in 2016-17 and INR 19.72 Cr has been sanctioned for 6 projects so far." An Inter-Ministerial Committee (IMC) has also been constituted to develop a strategy and roadmap for implementing coastal shipping of coal and other commodities. Based on recommendations made by the IMC, a DPR is under preparation for the heavy haul rail corridor between Talcher and Paradip.

As of March 2017, the Ministry of Shipping reported[49] on four projects, which were identified for implementation in 2016-17, that could not be implemented. These include construction of Subway/ flyover at Cochin Port Trust, national waterways between Muktyala and Vijaywada (NW 4), national waterways between Erada and Padnipal (NW 5) and Jal Marg Vikas (NW 1).

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[47]The Sagarmala Post. Vol. 1. January 2017. Ministry of Shipping. http://sagarmala.gov.in/media/newsletters
[48]However, The Business Line reported on 23 June 2017 that Ministry of Shipping had scrapped plans for the port in Sagar Island as the West Bengal government was proceeding with plans for a new port at Tajpur.
[49]247th Report. Parliamentary Standing Committee on Transport, Tourism and Culture. March 2017.

According to the March 2017 Sagarmala Post[50], the Ministry of Shipping is developing Jal Vikas Marg on River Ganga (NW 1) with an estimated project cost of INR 5,369 Cr for which the World Bank (International Bank for Reconstruction & Development) has provided a loan of USD 375 Million (INR 2442 Cr). "The project includes development of navigable channels, setting up of multi-modal terminal at Sahibganj, Varnasi & Haldia, modernisation of river navigation system and construction of navigable lock at Farakka." However, the Ministry reported to the Parliamentary Standing Committee that "land acquisition, wildlife clearance, CRZ clearance and Public Investment Board (PIB) approval for the project are concerns which may affect the progress".

Port-linked Industrialisation: Perspective Plans for Coastal Economic Zones (CEZ) have been prepared and Detailed Master Plans will be prepared for 5 pilot CEZs in Gujarat, Maharashtra, Tamil Nadu, Andhra Pradesh and Odisha in the first phase. Master plans for Maritime Clusters in Gujarat and Tamil Nadu have been prepared. "Based on availability of land with the Major Ports, Ministry of Shipping is developing a Special Economic Zone (SEZ) at Jawaharlal Nehru Port Trust (JNPT), Free Trade Warehousing Zone (FTWZ) at Ennore in Tamilnadu and has also identified Kandla in Gujarat and Paradip in Odisha for development of Smart Port Industrial Cities (SPICs)."

The January 2017 Sagarmala Post informs that "to provide cruise passengers with the ease of doing business, Ministry of Tourism has also issued a Simplified Standard Operating Procedure (SOP) for the various agencies involved in handling cruise passengers and ships". In addition to a Modern Cruise Terminal being planned at the Mumbai Port at an estimated cost of INR 250 Cr, infrastructure development in cruise circuits of Mumbai, Goa, Lakshadweep etc. are also being developed by the Ministry of Shipping.

According to the Ministry of Shipping's Year-end review[51], the TEFR for developing underwater viewing gallery and restaurant at Beyt Dwarka Island is under preparation.

Coastal Community Development: Along with the Department of Animal Husbandry Dairying & Fisheries (DADF), the Ministry of Shipping is funding select fishing harbour projects. According to the January 2017 Sagarmala Post, "the project for modernisation and upgradation of Sassoon Dock, at a cost of INR 52.17 Cr, has been already sanctioned. Ten additional proposals across five maritime states are under consideration for approval." The March 2017 Sagarmala Post reported that plan for a fishing harbour at Kulai in Karnataka is under consideration. At an estimated cost of INR 196.5 Cr, the project is meant to be jointly financed by Central Sector Scheme on Blue Revolution, DADF, Sagarmala Programme, New Mangalore Trust and the state government of Karnataka.

According to the January 2017 Sagarmala Post, the Ministry is also "supporting the development of deep sea fishing vessels and fish processing centres in convergence with DADF." Under the Sagarmala Programme, INR 16.9 Cr has been released for skill development of around 20,000 people across 20 coastal districts. This includes projects such as safety training for workers in Alang-Sosiya Shipyard in Bhavnagar in Gujarat. The Ministry of Shipping is undertaking "skill gap analysis in 23 coastal districts to identify skill requirements and develop a roadmap for addressing the same. To provide skilling for port & port user community, the Ministry of Shipping is planning to conduct cutting-edge skill training in ports & maritime sector and is evaluating the proposal for setting up Multi-Skill Development Centres linked to Major Ports, in collaboration with Ministry of Skill Development & Entrepreneurship."

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[50]The Sagarmala Post. Vol. 2. March 2017. Ministry of Shipping. http://sagarmala.gov.in/media/newsletters
[51]Ministry of Shipping: Year-end Review Setting the Stage for Growth . 22 December 2016. Press Information Bureau. http://pib.nic.in/newsite/PrintRelease.aspx?relid=155754

According to March 2017 Sagarmala Post, the Sagarmala Programme along with Ministry of Rural Development's Deen Dayal Grameen Kaushalya Yojayna (DDU GKY) is implementing skill training "based on the need of the industry and youth aspiration in coastal areas" in 22 districts in Andhra Pradesh, Karnataka, Maharashtra, Odisha and Tamil Nadu. "Out of a total planned target training of 2130 persons, 738 persons have been trained in 350 trades, 390 trainees have been placed and 624 are currently undergoing training." Jawaharlal Nehru Port Trust (JNPT) along with logistics sector employees is setting up a Logistics Multi Skill Development Centre in Mumbai which will be operated by Ministry of Skill Development and Entrepreneurships's flagship program – Pradhan Mantri Kaushal Kendra (PMKK) Program. The Ministry of Shipping along with Seimens and the India register of Shipping (IRS) is setting up Seimens-IRS Centre of Excellence, a facility for the Shipbuilding industry.

THE VIZHINJAM PORT: DREAM OR DISASTER?

A CASE STUDY

GOUTAM

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The Vizhinjam International Deepwater Multipurpose Port, was awarded to the sole bidder Adani Ports & SEZ in 2015 by the previous Congress-led UDF (United Democratic Front) government in Kerala, almost half a century after the project was first mooted[1] and 20 years after the proceedings started in 1995. Touted by the goverment as a dream project and many others as an economic disaster, the project has been mired in controversy and allegations of governmental misconduct. Many have also predicted that the port would wreak havoc on the marine biodiversity, the livelhood of local fishermen and the tourism industry. This report is an attempt to bring together the various issues surrounding the Vizhinjam port and critically evaluate the project for what it actually is, its true costs and benefits.

[1]Vizhinjam Port: a Grand Old Port Project. 07 December 2015. Hellenic Shipping News. https://tinyurl.com/yb2q3px4

Supporters of the port see it as a "game changing" project that will alter the developmental fortunes of Kerala and cite Vizhinjam's proximity to international East-West shipping route, deep natural draft and reduction in import/ export cost as the main rationale behind the project. However, many stakeholders and experts claim that the reality is far from the rosy picture painted by the government. After from being an economically unviable project, **the port can have very real adverse impacts on the region's marine and coastal ecology, livelhoods of local population and tourism.** Further, related legal and regulatory issues including the lack of transparency in the contract award process has also been a subject of criticism from various quarters.

AN ANALYSIS OF THE ECONOMIC VIABILITY

In June 2015 the Kerala State Cabinet accepted Adani's bid for construction and operation of the Vizhinjam port. The Concession Agreement is for building port superstructure and operating the port for a period of 40 years including the four years of construction. The port assets will be transferred back to GoK at the end of the concession period of 40 years (2015-2054). The Concessionaire, Adani Vizhinjam Port Private Ltd, began construction in December 2015 and, according to the project schedule, Phase-1 is expected to be operational by December 2019. The project is proposed to be developed in three phases. The land requirement for the port is 351 acres[2]; of which 131 acres is reclaimed land. Thirty per cent of the total port land is to be used for real estate development in the form of hotels, commercial buildings and residential apartments.

The port is being developed as a Public Private Partnership (PPP) project on a design, build, finance, operate and transfer (DBFOT) basis. The PPP structure is based on the Landlord port model where land will be owned by Government of Kerala (GoK) and Vizhinjam International Seaports Limited (VISL), a Special Purpose Vehicle (SPV) owned by GoK, and the Concessionaire (Adani) will manage the port development and operations. "In the landlord port model, the civil work facilities including construction of basic infrastructure like breakwater, quay wall, dredging, reclamation, rail and road access will be developed by VISL. Port operation will be through the PPP model for an agreed concession time period. Terminal operator(s) will be required to develop the container yard, terminal buildings, and purchase & operate the cargo handling equipments.[3]"

Vizhinjam port is designed to cater primarily to transhipment[4] traffic, i.e. as an intermediate destination for international cargo on-route to a final destination. The port is expected to attract low volume of gateway traffic, i.e. port traffic originating in or destined for Kerala, due to the lack of industry in the immediate hinterland of the port. According to VISL estimates, of the total vessels expected to call at the port, 80% will account for transhipment of which 60% will be foreign ships. Gateway cargo is meant to contribute to only 20% of the traffic.

Analysis by Drewry[5] as part of a study commissioned by VISL shows that Colombo handles 35% of transhipment traffic in the Indian Sub-Continent (ISC). Only around 4% of ISC transhipment is handled by other ports within the subcontinent. The rest 61% is through ports outside of the subcontinent; important among them being Singapore, Salalah, Jebel Ali, Dubai etc. Once completed, Vizhinjam, it is claimed, will attract transhipment from these ports and

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[2]Status of Land as on 26.05.2015. Vizhinjam International Seaport Limited. https://tinyurl.com/y7msshfz
[3]AECOM, Integrated Master Plan for Vizhinjam Port, November 2012https://tinyurl.com/y7sqngap
[4]According to the Shipping and Freight Resource, transhipment is the act of off-loading a container from one ship (generally at a hub port) and loading it onto another ship to be further carried to the final port of discharge. https://shippingandfreightresource.com/transhipment-and-cargo-in-transit/
[5]Drewry provides maritime research and financial consulting services to the maritime and shipping industry

increase India's share in the transhipment business of the region, thereby contributing significantly to the revenues of the region and reducing import/export costs. It is also claimed that the port would also boost the gateway traffic from the hinterland (primary being Kerala) by opening up new supply-chain networks. **All estimates of economic feasibility are made on the central assumption that Vizhinjam would be able to draw a substantial proportion of traffic away from its competing foreign transhipment hubs.**

A closer examination of the facts reveal that the claim of Vizhinjam attracting significant traffic away from other ports is not substantiated. The first has to do with the market conditions and competition. Every study commissioned by VISL,[6] has unambigously stated that Vizhinjam will face intense competition from already established ports like Colombo and Singapore for transhipment traffic and from domestic ports like Cochin and Tuticorin for gateway traffic. Moreover, established foreign transhipment hubs like Colombo and Singapore have the presence of global players in port operations and they enjoy established relationships with shipping lines besides better logistical network. This clearly puts Vizhinjam at a disadvantage from the very start. According to these reports, one of the necessary but not sufficient conditions for Vizhinjam to attract traffic is by providing "world class services" to its users. However, a comparative analysis of Vizhinjam's competing ports, across 7 parameters of port and terminal performance, by Drewry as part of the 2010 IFC report, gives a score of 4.2, 4.8 and 5 on a 5 point scale to ports in Colombo, Dubai and Singapore respectively. No Indian port scores above 2.9 according to this study. Thus the main competing ports are already operating at a very high standard from the perspective of shipping operators. This then raises the question - what standard would Vizhinjam have to aspire for to become a preferred destination over the aforementioned foreign ports and is it realistically achievable?

The second aspect has to do with the tariff structure. Two types of tariffs are applicable to shipping traffic. First relates to the vessel (pilotage, port dues and berth hire) and the second to the containers (handling and storage). Apart from geographical factors, these charges determine the choice of vessels to call upon a given port as opposed to another. According to the 2015 Ernst & Young Feasibility Report, the tariffs at Vizhinjam are to be capped at Cochin rates for gateway traffic and Colombo rates for transhipment. It also calls for a further discount of upto 35% over Colombo rates to attract vessels. Let us look at how Vizhinjam fares without discount viz a viz Colombo on vessel charges for foreign flag ships.

TYPE OF SHIP	PILOTAGE CHARGE (INR/GRT)		PORT DUES (INR/GRT)		BERTH HIRE (INR/GRT/HOUR)	
	Vizhinjam	Colombo	Vizhinjam	Colombo	Vizhinjam	Colombo
Upto 30,000 GRT	50	4.11				
30,000 - 60,000 GRT	40	4.11	25	4.77	0.6	0.13
60,000 GRT & above	40	4.11				

(GRT = Gross Registered Tonnage)

[6]Strategic Option Report by IFC in 2010, Detailed Project Report by AECOM in 2013, Estimation of Economic Internal Rate of Return of the Vizhinjam Port Project – Draft Report by Deloitte Touche Tohmahatsu in 2013 and Feasibility Report by E&Y, AECOM and HSA Advocates in 2015

A cursory glance at the above numbers reveals that vessel charges of Vizhinjam are many times that of Colombo. Even after 35% discount, the tariffs do not come close enough to pose a serious threat to Colombo, which is incidentally planning to expand its capacity. Also note that Vizhinjam does not have geographical advantage over Colombo to offset its steeply higher vessel charges. The prospects for Vizhinjam turns gloomier when one considers the fact that Malaysian ports of Kelang and Tanjung Pelepas, both among the largest ports in the world, offer fares even lower than Colombo. The question then remains, why would foreign flag vessels which constitute the bulk of global cargo handling chose Vizhinjam? Moreover, Indian flag transhipment vessels also enjoy no benefit in terms of vessel charges in Vizhinjam compared to Colombo.

The third aspect is the growth potential of container traffic. The reports on Vizhinjam draw attention to the impact of the global economic downturn on the prospective growth of global container traffic. A projected CAGR (compound annual growth rate) of 8-10% in container traffic is assumed in the offical economic viability studies for Vizhinjam but global and national estimates for the previous years reveal much lower figures. Simply put, the growth in shipping traffic that is expected by the government will not materialise and the projections are a deliberate overestimation.

As mentioned earlier, Vizhinjam will primarily be a transhipment port, a fact that adds to its risk and undesirability. The IFC report in no uncertain words states that **“large investments in greenfield ports are rarely planned based primarily on transhipment traffic, because transhipment traffic is very unpredictable and shipping lines are known to switch from one port to another at the slightest of reasons.”** The same report also confesses that Vizhinjam will not contribute substantially to the development of Kerala, the primary justification given for the project. To quote the report: **“A port based primarily on transhipment traffic does not have significant linkages and synergies with the local economy. As a result one of the key priorities of the Government of Kerala, i.e. development of Kerala, is unlikely to be served optimally, if the port develops primarily as a transhipment port.”** It further states that the project runs the **“risk of creating a white elephant with poorer economic and financial results in the medium to long term.”**

Other necessary conditions needed to attract ships to Vizhinjam, as proposed by all the three reports commissioned by VISL, include exemption from Indian Cabotage Laws to allow foreign ships to handle domestic cargo traffic, relaxation or exemption from labour laws and constituting the port as an SEZ. The above recommendations if implemented can have disastrous consequences.

Let us now examine the project structure and its economic viability as estimated by the government. The project is structured in a fashion that has no precedent the country. The total cost of the project awarded to Adani is Rs. 4089 Crores, out of which 40% or Rs. 1635 Crores will be funded by government’s Viability Gap Funding (VGF) scheme. Twenty per cent (Rs. 817 Crores) of the VGF amount has to be raised by GoK and rest (Rs. 817 Crores) will be contributed by Government of India (GoI). Vizhinjam is the first port in the country to receive VGF support. Apart from this, construction of a 3 km breakwater and a fishing harbour will also be funded by GoK under the Funded Works concept. **The construction of infrastructure under Funded Works will be done by Adani with GoK paying a lump sum amount of Rs. 1463 Crores, in a move that did not involve any competitive bidding. The cost of funded work increased 53% from Rs. 952 Crores in December 2014 to Rs. 1463 Crores in May 2015 at the time of final award. At the same time the total project only increased from Rs. 3930 Crores to Rs. 4089 Crores, just about 4%.**

This indicates that Adani may be making undue benefits from the funded works portion of the project which is being paid for by GoK.

Further, land acquisition, supply of drinking water and electricity and rail connectivity is also the responsibility of GoK at a cost of Rs. 1973 Crores. Thus the total investment on the port works out to be Rs. 7524 Crores. As a proportion of the total investment, GoK funds 57%, GoI 11% and Adani 32%.

Returns to GoK is non existent for the first 15 years after which Adani will share a paltry 1% of the revenue, increasing 1% annually, with the government. Such a preposterous cost and revenue sharing model is indeed shocking and justifiably raises concerns about the real motives behind the project and who its real beneficiaries are. Compare this with the nearby Vallarpadam port where in 2004 DP World and Punj Lloyd had offered 33.3% and 10.1% premium respectively to the government. Moreover, in 2014 Adani had offered 37% premium in its winning bid for Ennore port in Tamil Nadu.

All studies commissioned by the government, without exception, have concluded that Vizhinjam as a stand alone port project is economically unviable, even after such generous financing arrangements. According to the Feasibility Report submitted to VISL in 2015, the **"project is not financially viable because of long gestation periods and limited financial returns". It is only after allowing Adani to develop the real estate project on 30% of the alloted land and providing a (maximum possible) VGF support of 40% that the project could barely cross the viability threshold even on paper. Additionally, VGF norms were amended specifically to allow commercial real estate compenents for the Vizhinjam project.** It is also of interest to note that, the addition of the real estate component in the project happened only after the then Chief Minister of Kerala, Oomen Chandy, met with Gautam Adani, Chairman of Adani Group, in Delhi. The minutes of this meeting were not officially released. Thus, it is only the port estate development that delivers any profit (to which the government has no claim), rendering the entire project as a glorified real estate project with no real contribution to the state exchequer. Note that even this claim of economic viability is contingent upon the rosy traffic projections which as shown earlier are deeply suspect to begin with. The entire affair was charecterised by a total lack of transparency and many have alleged corruption at the highest levels of government machinery to award the project to Adani.

It is precisely for this reason that the **Comptroller Auditor General (CAG) of India in its 2016 report concluded that the Vizhinjam project is against the interests of the Kerala State and that only the Adani Group is set to benefit from the agreement.** The report points to widespread discrepancies in the Vizhinjam agreement as well as grave irregularities in breakwater construction and land acquisition resulting in a substantial loss to the government.

Even as the government has bent over backwards to claim that the project is economically feasible, the economic loss inflicted upon the existing communities and the local economy has not been considered. Vizhinjam is located close to one of the most important tourism and fishing centres of the state. According to government's own estimates, the port will provide only 550 direct jobs including managerial staff and engineers. Whereas the livelihood of close to 50,000 fisher people and close to 10,000 tourism related jobs stand to be adversely affected by the project.

To conclude, it is evident that the success of the port to even realise its immediate economic returns hinges on many ifs and buts, which in themselves are unrealistic. Massive loss of livelihood in the tourism and fishing sector will be wrought about by the port and the purported gains are far outsripped by these losses.

The revenue sharing model will push the already strained state economy into further debt trap. Add to this, the absolute lack of transparency in the bidding process and dubious contract structure, Vizhinjam can only be seen as a massive hoax perpetrated on the people of Kerala for the benefit of Adani and unscrupulous politicians.

ECOLOGICAL AND LIVELIHOOD CONCERNS

Erosion: A study regarding shoreline changes trend in Kerala was conducted by National Centre for Sustainable Coastal Management (NCSCM)[7] which attributed most of the drastic shoreline changes in Kerala to the structures built along its coast. According to this study, almost 63% of Kerala coast is eroding – including artificial coasts – and careful precautions need to be taken before constructing any further structures along its "eroding and vulnerable" coasts. Furthermore, the study also concluded that among all the coastal districts of Kerala, Thiruvananthapuram has the highest percentage of eroding coast, at 52.4%. According to the CRZ Notification, 2011 if a site falls in a high erosion zone, no port project is permissible in that area. By virtue of this alone, the port should not have received environmental clearance in accordance with CRZ regulations.

Inadequate Environmental Assessment: All studies conducted by the authorities on Vizhinjam project are marked by its almost total absence of any serious exploration into the status of the marine ecosystem and biodiversity and the possible effects of the port on it. The South Western coast of India adjoining Kerala and more precisely its southern section is thought to be the most productive marine ecosystem in India. The area of Wadge Bank is comparable to biodiversity hotspots in a terrestrial ecosystem. There was no effort to gauge the possible long-term effect of the project on the marine ecosystem and scientists and activists have called for a fresh comprehensive EIA study at Vizhinjam and the adjacent marine area.

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[7] http://www.ncscm.res.in/cms/geo/pdf/research/kerala_fact_sheet.pdf

Impact on fisheries: This richness of its biodiversity and its contribution to the fisheries sector is also borne by the fact that though Thiruvananthapuram district accounts for only 13% of the state's coastline, it is home to close to 25% of its fisherfolk population. Coastal villages in the district are characterised by very high densities of population and the highest per capita fish catch in the state. Any destruction of the Wadge Bank will in all possibility have a disastrous effect on the fisheries sector of Southern Kerala. Recent studies have identified Vizhinjam-Poovar stretch as a biodiversity hotspot and recommended that the region be recognised as a Marine Protected Area (MPA). Reduction in fish catch is also a certain outcome of the port both during construction and operation phases.

Impact on fishworkers: Environmental and Social Impact Assessment Report (ESIA) identifies beaches of four fishing villages that lie in the shadow area of the breakwater – Nellikkunnu, Mulloor, Pulinkudi and Azhimala – access to which will be lost to the local fishermen due to the reclamation of sea. These beaches will be permanently lost. The ESIA report identifies 549 shore seiners active in this stretch of the sea whose livelihood will be directly affected by the construction. Movement of vessels along this coastal stretch (Nellikkunnu – Adimalathura) will be hampered.

Fisher folks who use the area between the existing shoreline and up to the breakwater and also the exclusion zone and approach channel are poised to lose access to their traditional fishing grounds. Fisher folk will have to now use a longer channel that is at least 1.5 kilometres off the shoreline to enter the harbour, thereby driving up the fuel expenses and reducing profitability. Regulations would be imposed on fishing operations around the port area and fishing in an area 15 kilometres around the port will require permission from the port authorities.

NATIONAL INLAND WATERWAYS

ECO-FRIENDLY TRANSPORT OR A NEW ONSLAUGHT ON RIVERS?

SHRIPAD DHARAMADHIKARY & JINDA SANDBHOR

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On 9th March 2016 Parliament enacted The National Waterways Act, 2016. This act has declared 111 rivers or river stretches, creeks, estuaries as National (inland) Waterways. Designating an inland waterway as "National" through an Act of Parliament allows the Central Government to take over the regulation of these waterways for development with regard to shipping, navigation and transport through mechanically propelled vessels. The passage of this Act signals the intention of the Government to push ahead with a massive plan to convert many of our rivers into commercial waterways, operating large cargo and passenger vessels. Prior to this Act there were five national waterways, each declared as such by their own separate legislation, but development on these has been slow and uneven. These five waterways are now included in the new Act. Table 1 below lists these five national waterways.

TABLE 1: NATIONAL WATERWAYS (PRE-2016)

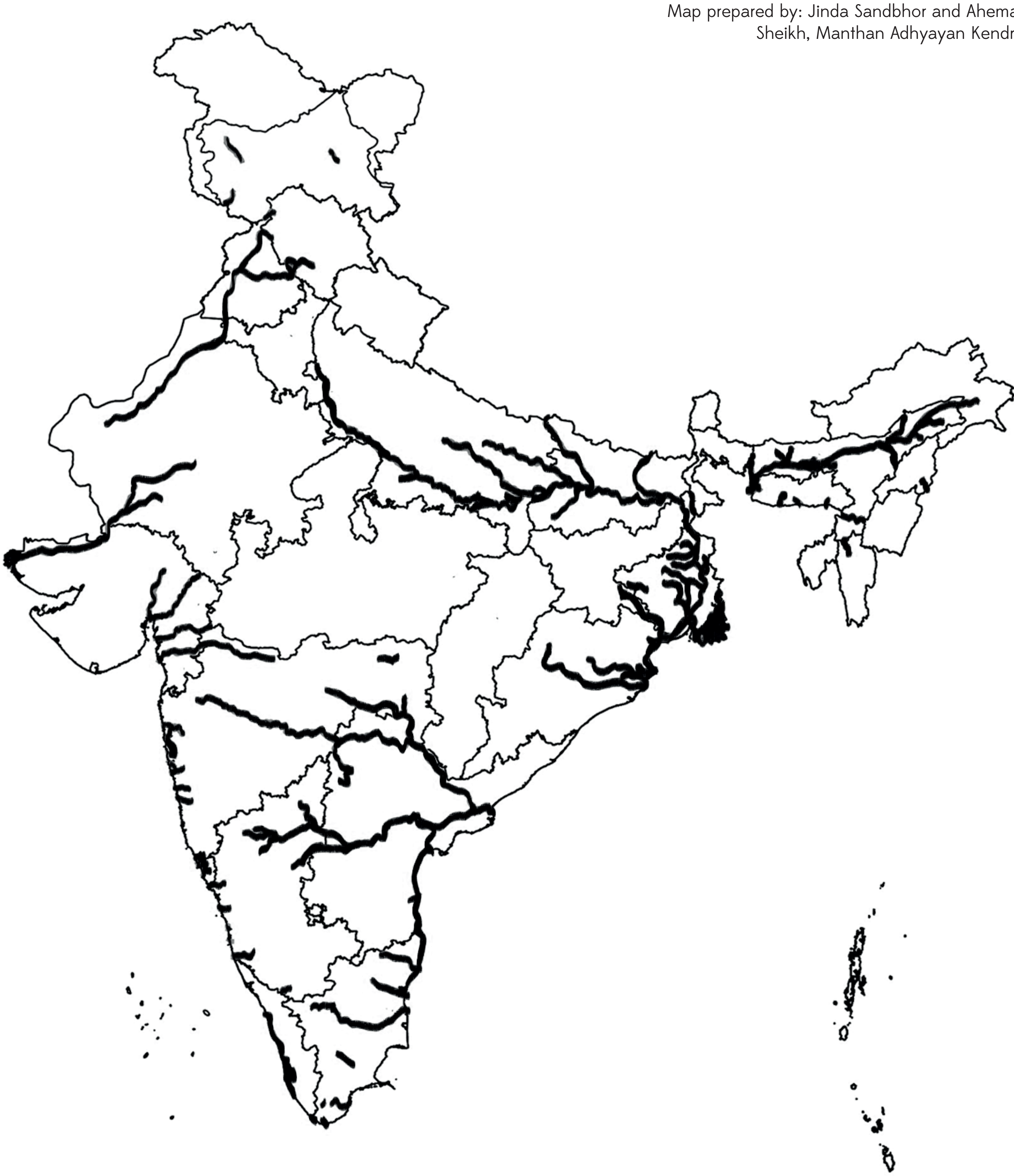
WATERWAY NUMBER	WATERWAY STRETCH	LENGTH OF WATERWAY (KMS)	YEAR IN WHICH DECLARED NATIONAL WATERWAY
1	Allahabad to Haldia stretch of the Ganga – Bhagirathi-Hoogly	1620	1982
2	Sadiya-Dhubri stretch of Brahmaputra river	891	1988
3	Kollam-Kottapuram stretch of West Coast Canal and Champakara and Udyogmandal Canals	365	1992
4	Kakinada-Puducherry stretch of Canals and the Kaluvelly Tank, Bhadrachalam-Rajahmundry Stretch of River Godavari and Wazirabad-Vijayawada Stretch of River Krishna)	1078	2008

The Inland Waterways Authority of India (IWAI), under the Ministry of Shipping, Government of India, set up through The Inland Waterways Authority of India Act, 1985, is the nodal body for development and maintenance of inland waterways in India.

EXTENT OF THE WATERWAYS

While navigation in rivers, lakes and other water bodies has been around since centuries, this has been more in the form of smaller vessels, connecting places not too far from each other. In some cases, especially near ports and coastal areas, this has evolved to more large-scale, commercial shipping. The national waterways project now intends to create such large scale, commercial shipping and navigation systems in these 111 waterways. (See Map for the proposed inland waterways in India). These waterways pass through 24 states and two union territories, with an approximate total length of 20274 km. These waterways will pass through nearly 138 river systems, creeks, estuaries and related canal systems of India. (Table 1 gives the number of national inland waterways proposed in each state.) It is also planned to link many of the national waterways to each other, to roads and railways and to major ports. This scheme is being called the Integrated National Waterways Transportation Grid. In particular, there are plans to link the waterways to the

MAP: PROPOSED NATIONAL INLAND WATERWAYS
Map prepared by: Jinda Sandbhor and Ahemad Sheikh, Manthan Adhyayan Kendra.



Eastern Dedicated Freight Corridor, and to the Sagarmala (ports) project.

ADVANTAGES OF WATERWAYS ARE NOT UNQUALIFIED

Several advantages are put forward for such waterways, namely that they are fuel-efficient and therefore environmentally friendly and that they ease congestion on the main highways. Bringing transport infrastructure to areas with low connectivity, like the North-East, is projected as another big advantage. These advantages are often projected in a blanket form, as generic to waterways.

However, these advantages are neither unqualified, nor automatic. They will manifest only when certain conditions are met, and only under certain circumstances. While waterways may offer better fuel efficiencies as compared to road transport, this advantage is much smaller when compared to the railways. According to the report **Integrated National Waterways Transportation Grid (INWTG)** prepared by RITES, a Government of India agency in 2014, the cost of transport by waterways, rail and road per ton-km is respectively Rs. 1.06, Rs. 1.41 and Rs. 2.58. Moreover, even this advantage can be overridden by other considerations. For example, if the origin and destination points are both on the waterway, it can prove to be beneficial. But if any or both points are off the waterways, then the need for taking the cargo up to the waterway and bring it back from there, the costs of loading and unloading, of river terminals etc. can easily nullify any advantages and the waterway can become the costlier option. Waterways will often not be able meet the needs of door-to-door delivery. This means that a multi-modal transport solution involving waterways may not always offer a cost-advantage over other modes of transport. The length of the waterway, whether the transport is upstream and downstream, whether perishable cargo is involved, all these considerations will also determine whether ultimately waterways provide a better option or not. The social and environmental considerations will be in addition to this.

Given these concerns the blanket and unqualified assertions about the advantages of waterways cannot be taken at face value. These advantages cannot be generalised to all waterways but depend on the specific conditions of each waterway. Thus, we cannot start from an assumption that any and every waterways will by default be advantageous. Rather each waterway will need to be examined in detail individually to assess its viability and value.

CREATING AND MAINTAINING WATERWAYS

Creating and maintaining waterways need huge interventions in rivers. This is particularly so because for a waterway to be viable for plying of large barges and commercial vessels, a depth of 2-4 meters and a channel width of 45 m or more is considered necessary. **Given the condition of Indian rivers, achieving these conditions will need large scale dredging of rivers to cut and maintain these channels, construction of barrages to maintain the depth of water, river straightening works, river training works and construction of terminals, warehouses, repair stations, parking stations etc.** Dredging is a major component of the development and operation of inland waterways. What is important is that dredging is not a onetime activity, but an ongoing one that needs to be undertaken as long as the waterway is to be in service. The initial dredging carried out to create the navigation channel is termed as capital dredging, whereas ongoing dredging undertaken to clear the continuous deposition of silt and other material in the channel is called maintenance dredging.

SOCIAL AND ENVIRONMENTAL IMPACTS

These activities, particularly the dredging that will be needed on a regular basis and river training works are likely to have huge impacts on the rivers, their ecology and the riparian communities. **Dredging involves destruction of the habitats of river flora and fauna, as it virtually digs up and scrapes the riverbed. It also creates turbidity and noise, which makes the fish leave the area.**

The operation of the waterway adds to this as barge movements create lot of sound and other disturbances, affecting the fish. Leakage of oils and lubricants from vessels is one of the most important adverse impacts of operation of waterways.

Our field visits to Dharamtar Creek in Maharashtra, where a waterway is currently operational (and this waterway is being expanded to National Waterway 10), showed that several thousand fisherpeople and their livelihoods have been seriously affected, as dredging, and disturbances from barge movements have led to fish fleeing the area. Moreover, barge movement and dredging also makes it difficult for fisherpeople to lay their nets, or even access fishing areas. Barge movement also lead to bank erosion. (See Box 1)

Many of the waterways cut directly through protected areas. For example, the Waterway 1 (Ganga waterway) will pass through the Kashi Turtle Sanctuary and Vikramshila Dolphin Sanctuary.

One of the alarming things about transport on the waterways is that the Government is actually thinking of pushing more hazardous cargo on to the waterways and a RITES Report of 2014 on Integrated National Waterways Transportation Grid recommends that "IWAI may take up with concerned ministries for enacting Regulations for compulsory movement of hazardous cargo… by Inland Water Transport mode". **The movement of hazardous goods by water transport would create severe risks for the river ecosystems, fish, communities that live by the river and people who are supplied the river waters. The consequences of an accident and spillage would be huge indeed.**

LACK OF A PROPER REGULATORY REGIME

Given that creating, maintaining and operating waterways has many serious impacts on rivers, river bank communities, riparian habitats, deltas etc. it is a cause for concern that the legal regime governing environmental impacts of waterways, particularly their prior environmental clearance, is ambiguous.

The EIA Notification 2006, which governs prior Environmental Clearance (EC) for various projects, does not mention waterways at all. However, the item 7 (e) in the list of projects needing EC lists "Ports, Harbours, Breakwaters, Dredging". Since dredging is a critical component of most waterways, this clearly implies that waterways need to take prior environmental clearance.

Yet, in a recent affidavit dated 27 Oct 2016, filed in the National Green Tribunal, in a case related to the National Waterway 1, **the Ministry of Environment, Forests and climate Change (MoEFCC) has taken a very ambiguous position, stating that inland water ways will not need environmental clearance,** implying that this is so even though they require dredging. Yet, in a letter written to the Inland Waterways Authority of India (IWAI) in June 2017, the MoEFCC had told the IWAI that it would need to take clearance for the dredging part. But this letter has not been submitted by it to the Tribunal.

Given the serious impacts of waterways, one would expect the MoEFCC to amend the EIA Notification 2006 to explicitly include waterways in its ambit – something which one of its own expert committees has recently recommended, rather than hide behind legal loopholes.

OTHER KEY ISSUES

Much of the work on waterways – the planning, the preparation of project reports, even implementation – is going on without adequate public awareness, public consultation and public participation. Even in the areas where waterways are coming up, local people have little awareness of what is being proposed and implemented, and the impacts. Part of the reason is that there are no legal obligations for the authorities to inform the public. In particular, since waterways claim themselves exempt from the environmental clearance process, there is no public hearing. **Moreover, since the government is in a great hurry to push ahead with the program, it is found convenient to bypass informing and consulting local people. Our visit to Odisha near Paradip and the Mahanadi delta, where work on the National Waterway 5 is being pushed ahead rapidly, showed that the local people, including the fishing community which would be** most affected, had

TABLE 2: STATE-WISE SUMMARY OF WATERWAYS

SR. NO	STATE	TOTAL NUMBERS OF WATERWAYS
1	Andhra Pradesh	3
2	Arunachal Pradesh	1
3	Assam	17
4	Bihar	7
5	Delhi	1
6	Goa	6
7	Gujarat	5
8	Haryana	2
9	Himachal Pradesh	3
10	Jammu and Kashmir	4
11	Jharkhand	3
12	Karnataka	11
13	Kerala	5
14	Madhya Pradesh	3
15	Maharashtra	15
16	Meghalaya	5
17	Mizoram	1
18	Nagaland	1
19	Odisha	6
20	Puducherry	2
21	Punjab	4
22	Rajasthan	3
23	Tamil Nadu	10
24	Telangana	6
25	Uttar Pradesh	11
26	West Bengal	16

neither been informed nor consulted about the project. Importantly, in examining the options, there is no attempt to examine whether waterways can be designed to work with the natural flows, depths and widths of rivers. This is important because the biggest costs and impacts of creating and maintaining waterways come from the interventions – like dredging - necessary to develop artificial channels and fairways. This may mean some compromises in the size of vessels and the waterway's ability to operate year round. But some of these compromises are also required in waterways that are artificially created.

Some of the other concerns include potential conflict between the Centre and states if states are not taken into confidence about the waterways, the impacts on other government programs like the Interlinking of Rivers (ILR) and the Clean Ganga Mission. The ILR program is an interesting case as it potentially conflicts with the waterways program, as the former wants to transfer water from "surplus" rivers to "deficit" rivers, whereas the latter needs water to flow at good depths in rivers.

CONCLUSIONS

Waterways have the potential to offer significant advantages in terms of transportation options. At the same time, they are likely to have huge adverse impacts - social and environmental, as well as require large financial investments. Moreover, their advantages are inherent to waterways in general, but depend on the specific situation in each case. Given all this, it is critical that the ideas and plans for waterways be first thoroughly discussed and debated, and the advantages and disadvantages for proposed individual interventions be examined in detail, including social and environmental impacts. All these processes must be done in a transparent and participatory manner. In the process, it is also critical to examine the options of developing waterways based on naturally available depths, widths and flows in rivers. A sound legal framework that also makes it mandatory for proper environmental and social impact assessment and prior environmental clearance should be put in place.

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[1]Based on a field visit by one of the authors.
[2]Dharamtar port is a facility developed by Jindal Steel Works Ltd.
(The author has recently brought out a Strategic Status Report on National Inland Waterways, which is available at http://www.manthan-india.org/wp-content/uploads/2017/04/Strategic-Status-Report-on-Inland-Waterways-V5-FINAL.pdf)

SIGNS OF TIMES TO COME CASE STUDY: DHARMATAR CREEK, MAHARASHTRA, PART OF PROPOSED NW 10[1]

Background

The Amba river stretch in Raigad district of Maharashtra, from Nagothane to the Arabian Sea through the Dharamtar creek, has been declared as National Waterway (NW) 10. A part of this stretch, from Jawaharlal Nehru Port Trust (JNPT) Port through Arabian Sea and then through Dharamtar creek till Dharamtar port[2]- has been operational as a waterway since many years. There are jetties of JSW steel plant on the both sides of Dharamtar creek at Dharamtar port. Barges mainly carry coal and iron ore from the JNPT port and through the Dharamtar creek to jetties at Dharamtar port.

The operation of this waterway has had very severe impacts on the local communities, whose main source of livelihoods is fishing. Almost all the fisherpeople from this area are also involved in agricultural activity for their family needs.

IMPACT OF DREDGING

To maintain required depth of the navigational channel in Dharamtar creek, maintenance dredging operations are underway on a regular basis. The dredging operations make the water highly turbid and the fish flee from the area, which directly affects the fish catch of local fisherpeople. The fisherpeople complain that fish also move away from the area due to the noise and vibrations of the barges and dredgers. All these issues have impacted fish availability and in turn, the livelihoods of the fisherpeople.

Now the barges carry this silt/sand and dump it at newly developed dumping ground near Karanja village. The local activists allege that last year there was dumping into the creek itself but outside the navigational channel area. Such issues have also disrupted the navigation of fishing boats by the local community, as boats collide with silt and sand. The dumps were removed after protests by the fisherpeople.

Local activists told us that sometimes the barges also collapse into the navigational channel. However there is no removal of the material which gets dumped into the creek due after such incidents.

Impacts of Barge Movement

Traditionally fisherpeople and local farmers have raised embankments on the banks of Dharamtar creek to protect farmlands from intrusion of saline water. Fisherpeople told us that the incidences of breaches of embankments increased many fold after the start of the barge movement in the creek from 1992. Bank erosion is a well-known impact of vessel movements in inland waterways. Since 2005 more than 10,000 acres of farm land from Ganeshpatti area, nearly 700 acres farmland from Bhaal village and nearly 150 acres of farm land from Tamsibunder village have turned saline and non-fertile due to breaches of embankments.

At several places, particularly where there is a curve in the creek, bank erosion has led to the depletion of mangroves. The depletion of mangrove forest is resulting in increasing erosion and decreasing breeding and feeding ground for fish.

An example from another part of the country confirms the severe impacts of vessel movement on fish and fisherpeople.

The Haldia to Farakka stretch of the National Waterway 1 (Ganga waterway) has been operational since some time, and being used by NTPC to transport coal. The MoEFCC had asked the operator / user of NW 1 (NTPC) to carry out a study on impact assessment of coal transportation. This study was conducted by ICAR-Central Inland Fisheries Research Institute (CIFRI), Kolkata on coal barge transportation from Haldia port to Farakka through river Hoogly. The report notes[3]:

"Fish catch was measured before and immediately after barge movement. It reduced from 95 Nos./haul to 38 Nos./haul in the middle and upper stretch. Overall fish diversity was reduced from 15 species to 10 species after barge movement. International studies mentioned that it is practically difficult to identify the effects of inland navigation on fishes due to their ability to avoid disturbance by migrating to adjacent areas…"

As seen, this study indicated that a large percentage of the fisherpeople had to suspend operations with every barge passing by, and this has resulted in large losses in income for them. The fisherpeople in Dharmtar have had similar expriences.

Impact of Dust

At Dharamtar port there is continuous generation of dust due to handling of coal, iron ore and other material. As a result, the area around Dharamtar port is polluted, affecting the local communities as well as the fish.

Fisherpeople Losing Livelihoods

All of these impacts add up to very serious loss of livelihoods for the fisherpeople, along with the destruction of the ecology of the river. According to local activist Rajan Zhemase, there are nearly 3500 fishing boats operational in Dharamtar creek area. Nearly 7000 small fisherpeople are dependent on Dharamtar creek for fishing. Every day the fisherpeople have to fight with the barge movement as they put their nets in and around the navigational channel. Local fishermen are frustrated by this daily battle with barges and dredgers. First, they are unable to properly fish due to barge movement in the creek; second, due to turbid waters and vibrations from the dredging and barge movements, the fish go away from the creek; and third, due to breaches in embankments fishermen are losing their agricultural land.

"Approximately livelihood of 25,000 people is dependent on fishing on this 560 km stretch i.e. Sagar to Farakka stretch. The majority of the population is socioeconomically backward and 65-73% of their total income is generated from the fishing. 500 families have been surveyed along the whole stretch to study the impact of barge movement. Percentage of suspension of fishing operations due to barge movement is reported as 10%, 27% and 62% in the lower, middle and upper stretches from the surveyed families. Monetary loss due to decrease in fish catch was observed to be Rs.0.75/-, Rs.4.35/- and Rs. 18/- on an average per incidence of barge movement in lower, middle and upper stretch, respectively."

Impact on Fish Breeding areas

Gowardhan Patil, a local activist said that the Dharamtar creek area is one of the best breeding ground for fish due to its huge mangrove forest areas. Thecreek area was an excellent site for breeding of tiger prawns and other important fish varieties. However due to continuous movements of heavy barges, maintenance dredging operations and pollution due to material handling at ports, marine life and biodiversity of the Dharamtar creek are under severe threat.

In sum, the operations of the waterway are resulting in the ecological destruction of the creek and mangrove forests and impacting severely the bio-diversity and the fish. It is also snatching away the livelihood sources of the people who are dependent on it.

[3]The right to operate sea, air, or other transport services within a particular territory.

COMPETING CLAIMS

IMPACTS OF INDUSTRIALISATION ON THE FISHWORKERS OF GUJARAT*

ISHITA on behalf of THE RESEARCH COLLECTIVE

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"We used to have wooden boats of 15-20 feet, but now our children don't even know how to swim, let alone fish!"
- Chimanbhai, 63 years, fishworker, Budiya village.

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These words are a warning of a future that the traditional fishing community across Gujarat awaits in trepidation. In interviews across the coast, fishworkers echoed that they do not believe that the fishing community will survive for more than 15 to 20 years. This paper attempts to communicate some of their concerns.

According to the Marine Census of 2010, the state of Gujarat houses 62,231 fishing families living in 240 villages across the coast of Gujarat. Traditional fishworkers are understood for the purpose of this paper as fishers by birth and for whom fishing is their ancestral occupation. The system of fishing is further defined by factors of caste, scale, cost, labour, region of fishing, fishing technologies used and access to markets. **Fishing is not just an occupation, but also the fulcrum around which the community's identity, culture, daily life and sustenance revolve.**

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*This paper is based on a larger study titled "Where Have the Fish Gone?" conducted by The Research Collective on the impacts of coastal industrialisation on fishworkers. The information presented here is based on interviews conducted in districts of Surat, Valsad, Navsari, Kutch and Porbandar District.

Taking ancestral occupation as a key consideration, historically, the communities of Kharwas, Kolis, Mugaina, Macchi, Mangela, Halpathi in South Gujarat and Saurashtra, and the Machiyaras in Kutch are fishworkers. But a comparison between the 2005 and the 2010 Marine Census indicate that Gujarat has seen a decrease in the number of full-time fishworkers, particularly in Valsad, Surat, Navsari (South Gujarat) and Junagadh (Saurashtra). Junagadh also happens to be one of the main fishing districts with major fishing centers such as Veraval and Porbandar. Corresponding to the shift in patterns of livelihood, trends in marine fish catch in Gujarat (as well as other coastal states) indicate a sea change in marine ecology. In 2015, Gujarat landed 7.22 lakh tonnes of marine fish catch which forms 21.2 % of the total marine landings in the country, the largest of all coastal states[2]. **But while export earnings have tripled since 1993 till date, the actual growth in marine fisheries took place between 1980s-1993 and data suggests that fisheries are currently being supported by low value catch.** A spatial expansion in fishing area has also occurred and fishers have to travel further away from the coast to find catch. If on one hand the composition of fish catch is undergoing changes, so is the pattern of fisheries in the state.

Whereas overall information of changing patterns of occupation in the fishing community is not available, interviews indicated that incremental changes are taking place in livelihoods of the fishing communities. One of the key reasons for this shift, as identified by the fishworkers was the industrialisation of the coast and its ensuing impacts on both estuarine and coastal waters.

COMPETING CLAIMS

A press release by the Ministry of Shipping on the Sagarmala Programme states that 'amongst Indian States, Gujarat has been a pioneer in adopting the strategy of port-led development with significant results'. This rings true as the Gujarat State Port Policy of 2005, which has similarities with the Sagarmala Programme not only encouraged private investment in ports and promoted incentives for private players, but also imagined the ports as being gateways for an expanded industrial region, included manufacturing, roads, highways and connectivity to the northern hinterland[3]. Pre-empting the wave of liberalisation that was to hit India after 1991, the state had in the 1980's started encouraging private players in the manufacturing sector with a focus on medium and large-scale industries, with high export targets. Historically, much of this industrial activity started with the Gujarat Industrial Development Corporations (GIDC) Estates that were centered in the coastal regions of South Gujarat and this geographical concentration on the coastline has continued across the years, as the spread of industry continued to coastal districts of the Saurashtra region and Kutch. The major industries concentrated in the coastal districts include manufacturing of chemical and chemical products, fertilizers and pharmaceuticals, the oil and gas industry, cement, power, salt production and ship-breaking and recycling (all highly polluting industries).

A brief industrial overview, indicating Gujarat's reliance on coastal regions and port led development is as follows:

- The coastal districts account for almost two-thirds of the functioning MSME units in the State and nearly 60 percent of the Gujarat Industrial Development Corporation (GIDC) estates.

[2]CMFRI Annual Report, 2015
[3]Gujarat supplies cargo from Gujarat, Rajasthan, Haryana, Delhi, Punjab and UP.

- There is One Major (Central) and 42 Minor (State) ports in Gujarat alone, which handle almost 40 percent of India's port trade. Petrol, oil, lubricants and related products account for more than half the cargo handled, increasing risks for coastal ecology. Private conglomerations such as Essar, Adani, Larson & Tubro and foreign-based Israel Port Company, Maersk and other European companies are front-runners for port development. Gujarat currently has 4 functional private ports, operated through Special Purpose Vehicles in Pipavaav, Amreli district in Saurashtra region (1996) Mundra, Kutch district (1998), Dahej, Bharuch district (2004) and Hazira, Surat (2005). The Adani Ports and SEZ operate four of the above-mentioned Special Purpose Vehicles.
- Coastal districts also host 71 percent of the Thermal Power Projects (TPP) in the entire State. Thermal Power Plants (TPPs) account for 54.48 percent of thermal power generation, with three of the biggest private plants (the TATA Ultra Mega Power Plant, the Mundra Thermal Power in Station in Kutch and the Essar Saurashtra Super Thermal Power Plant in Saurashtra).
- There is a high incidence of mining in non-metallic mineral production with 77 and 61 percent of mining leases and quarries respectively concentrated in the coasts. Salt production in Kutch accounts for more than half the total salt produced in India.
- Future growth is also centered on the coast with 9 out of the 13 proposed Special Investment Regions and 29 out of 60 Special Economic Zones are port based[4].[5]

CASE STUDY: HAZIRA PORT AND INDUSTRIAL AREA

The case of the Hazira Port and Industrial Area acts as a case study to asses the impacts of coastal industrialisation on fishworkers.

OVERVIEW

Hazira is one the industrial areas in Surat district and includes large and medium industries. The Hazira Industrial Area and Port is located over 63 hectares in the Choryasi taluka of Surat. The Hazira Industrial Area was established in the early 1980's, to take advantage of the regions proximity to the Bombay High Offshore drilling station and the first industry was a gas-based fertilizer factory – the Krishak Bharti Cooperative Limited (KRIBHKO). Other gas based production plants such as NTPC, Reliance Petrochemicals, ONGC have also come up in the region since 2003-2004. Hazira is known as the 'single most sought after destination for investments' in the state and includes manufacturing of petrochemicals, fertilizers, heavy engineering, steel and energy.

The Hazira LNG terminal and Port serves as a gateway port for North, West and Central India and is a deep water, all weather direct berthing port in Surat. The port is situated at the intersection of River Tapi with the Arabian Ocean and is 20 kilometers from Surat City. In 2002, the Hazira Port Private Limited (HPPL)) was formed as a special purpose vehicle promoted by the Royal Dutch/Shell group and Total Gaz Electricite Holdings France. In 2009, HPPL signed a sub-concession agreement with Mundra Port and Special Economic Zone Limited and Gujarat Maritime Board (GMB).

GMB for the development of a non-LNG bulk/ container terminal at Hazira, which led to the formation of the Adani Hazira Port Pvt. Ltd (AHPPL). West of the AHPPL, approximately 2.4 kilometers away is a LNG Port and Oil terminal operated by Nikko Resources Ltd. as a joint venture with the Gujarat State Petroleum Corporation. This includes a 50 sq.km onshore and offshore block and a LNG port and Oil terminal.

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[4]Poverty Amidst Prosperity, Ed. Atul Sood, Aakar Books, 2012
[5]Identified areas are Kutch (Kandla, Mundra and Sikka), Saurashtra (Pipavav) and Southern Gujarat (Hazira, Magdalla and Dahej)

Geographical Impact Scope: Approximately 16 villages have been impacted by the development of the industrial area and port region, including Hazira. Hazira was an agriculturally rich area with fishing and agriculture being the main activities in the village. A patch of reserved forest and mangroves can be found on the East and South East side, which have Black Back and Long Bill Vultures that are on the critically endangered list.

Village History: As per the 2011 census, the Hazira village has a total population of 16,724 people and 4,443 families consisting of fishworkers, trader and farmers. The village has 80 Adivasi fishing families who historically fished in the intertidal zone of the Tapi River and the Arabian Sea. The entire region is a rich intertidal zone with active mudflats and pagadiya fishing was traditionally followed by the Halpati community along with fishing by boat by caste families such as the Koli Patels. The fishing hamlet of Hazira village itself is only 2 km from the HPPL and AHPPL ports and is bounded on the West by the open sea and on the East by the Tapi Estuary. The hamlet used to have access to both fresh and marine waters where fishing took place.

Pollution: The traditional fishworkers of Hazira have been pauperised by the development of the LNG terminals and ports as physical infrastructure of the port reclaimed land, blocked access to the sea and released oil sludge from cleaning tankers. According to fishworkers from Hazira village, pollution in the estuarine region, traffic because of port activity and the cleaning of oil tankers in the sea are the main reasons for the disappearance of fish.

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"We have to run the house no? We have to do some or the other work, someone will come say, work in my fields, I will pay you Rs.200 for the day"
- Dhansuk bhai, Hazira village fishworker elder and president of the Hazira Machimar Samiti.

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Fisheries livelihoods: Adani's project in the last 10 years have had the most adverse impacts on n the life and livelihood of fishworkers of Hazira. If in 2009-2010, the thought that industry could destroy fishworker's livelihoods was dawning on the community, by 2016 the fishworkers of Hazira village are no longer following their traditional occupation. The Hazira village has approximately 80 fishworker families who have lost their livelihoods. Pagadiya fishing (Shore-stake pole based fishing) has stopped completely and one boat goes to the sea to a distance of 10 NM, with approximately 6-7 people on board. Each person has to pay Rs.50 for a seat. The route to access the fishing grounds have been fenced off and villagers have to travel a few kilometers on foot or by bike to reach the coast where their boat is moored. From catching big fish like swordfish, dolphins, dada-gol, hilsa, podar, vadaklu at the coast, the main catch now is low-value levta (mudskippers) that live in mud in nearby islands and are sold for Rs.80 per Kilogram. From making at least Rs. 10-12 lakhs per year, they now barely manage to make Rs.1 Lakh.

The Halpathi community now lives an insecure existence as daily wage labourers. The main source of income for the community, ironically, is the waste product produced by Essar in the process of manufacturing steel. Waste scrap, which has a percentage of iron ore content, is produced as a by-product of steel manufacturing. The scrap is dumped on the beach and the ground is levelled. Smaller pieces are picked up by villagers, both men and women, and sold to scrap units in Mumbai. 200-300 kilos can be picked up and loaded into Activa Scooters, modified for this purpose.

The fishworkers community is not literate and cannot access jobs. Moreover, villagers say that the AHPPL specifically employs only migrant labour. The nature of this work also creates a barrier and those without educational qualifications have limited opportunities. For example, helpers for cranes in companies such as

Essar Steel and L&T are in high demand but local people are not used to climbing and working at a height. Villagers also report unreported deaths of migrant labourers over the years. A by-product of the changing economy has been the transformation of women's labour in the fishing community; women traditionally cleaned and sold fish caught by her (male) family members, but now most have either stopped working or lift scrap and work as domestic servants for upper caste communities in other villages in Hazira.

CONTESTING CLAIMS

Presented below are finding from interviews conducted across the three coastal belts of Gulf of Khambat, Saurashtra and Gulf of Kutch. The example of Gujarat then, forms an analysis, by which the impacts of coastal industrialisation programmes such as the Sagarmala on coastal communities can be understood. The growth of industries in the coastal belt has significantly and adversely impacted fishworking and other coastal communities across the coast of Gujarat. Some of the key issues that arose during the course of the study are as follows:

POLLUTION IN RIVERS AND ESTUARIES

- South Gujarat has seen the maximum impact of pollution due to industrial estates manufacturing highly polluting commodities namely, fertilizer chemical industries, textiles, pulp and paper, leather tanneries and sugar and mines and minerals. Contributing to this is the damming of rivers upstream which have stopped the flow of freshwater. According to estimates, more than 600 Million Liters Per Day (MLD)[6] of industrial effluent is released in estuaries and creeks of South Gujarat alone that flow into the Gulf of Khambat. Polluted rivers in the region include Par, Mindhola, Mahi, Purna, Ambika, Kolak and Damamanganga as well as Amalkhadi, Damanganga, Vatha and Bhogav[7].
- **Estuarine areas are ecologically critical and act as breeding grounds for fish. Interviews and reports indicate that pollution has led to fish stock disappearing as well as regular reports of fish kill.**

IMPACTS ON COASTAL WATERS

- Ports projects have led to the destruction of marine ecology at the coast and are causing pollution in neighbouring regions.
- Dredging has impacted coastal fisheries, destroyed mangroves and ancillary construction has blocked creeks and estuaries.
- Salinity ingress and coastal erosion have taken place across the state, particularly the Saurashtra coast and Kutch District.
- Cleaning of oil tankers were found to be polluting waters near port areas
- Saltpans have led to increasing salinity of water and combined with changes in rainfall pattern, even the most common fish catch such as Bombay Duck has disappeared near the coast in areas like Kandla
- Discharge of water from Thermal Power Plants has resulted in change in chemical composition of waters across the coast – leading to the disappearance of fish species.

[6]Compiled from different sources and interviews
[7]Compiled by The Research Collective

IMPACTS ON FISHERIES

- According to interviews conducted, the pollution in the estuarine systems has led to reduction of catch across estuarine and coastal waters of South Gujarat. Estuarine areas are ecologically critical and their destruction has led to fish stock disappearing and ensuing livelihood collapse. Traditional fishworking communities, who operate motorised crafts, with gillnets or dollnets are travelling anywhere upto 15-30 NM, to be able to find enough catch to meet expenses. **This has meant that older forms of labour and capital are not adequate to address present needs. Between supplies, labour costs and other incidentals of net and boat repair, there is no scope for a profit, rather endemic debt.**
- Case studies and interviews show that key protective mechanisms by the state such as a 5 Nautical Mile demarcation for traditional fish-workers is no longer adequate as there is hardly any fish catch left in under 5 NM particularly in South Gujarat and Saurashtra.
- Expanding fishing grounds due to pollution and overexploitation are also exacerbating existing conflict between small-scale fishworkers and mechanised fishing. Trawlers from Saurashtra, once seen as the most fertile fishing ground of Gujarat coast are travelling towards South Gujarat or Northwards towards Kutch. Trawlers from Saurashtra are also fishing in the creeks near the International Marine Boundary Line (IMBL) as catch in and around Saurashtra disappears. Some boats cross over to Pakistani waters while chasing fish, leading to their arrest, long periods of incarceration in Pakistani jails and impounding of boats.
- Fishworkers in Porbandar operating mechanised boats also say that fishing is becoming increasingly difficult as fish catch disappears across the coast – pollution is pointed to as a primary problem and they also indicate that presentations by the Fisheries department on shifting to deep sea fishing were not taken favorable by the community as it indicates a complete shift in their pattern of livelihood and does not solve the existing problem.

MIGRATION AND DISPLACEMENT

- Interviews in South Gujarat suggest that the decrease in fishing populations in districts such as Valsad and Navsari because of pollution in the estuaries has made fishing an economically unviable option.
- **Small scale fishworkers are either transitioning to becoming insecure migrant workers in neighbouring industrial estates earning Rs.5000-Rs.6000 a month as contract labour or are migrating to fishing centers such as Jakhau, Veraval and Porbandar.**
- Interviews in villages of Valsad, Navsari and Surat indicated that whereas fishers with motorised boats or trawlers are moving their boats, **poorer fish workers and pagadiya are working as labourers in trawlers of Saurashtra and Kutch.**
- **Even relatively prosperous fishing villages such as Umarsari village in Valsad** have women from fishing communities employed as contract labour in plastic factories of the region.
- **As traditional communities increasingly find other means of employment; the lack of labour is compensated by the in-migration of marginalised communities into fish work.** Migrant workers from Andhra Pradesh and Adivasi communities from south Gujarat are working as poorly paid labour in small boats of South Gujarat as well as mechanised boats operating from the Saurashtra coast.

- Ports, power projects and other infrastructure projects on the coastline also displace and disrupt access to the coast of small-scale fishworkers. Most traditional communities live either in temporary structures (landing centers and homes) called Bandars on the intertidal zone or in villages near the coastline. Ports, not only acquire homestead land and community commons, but also disrupt access to the coast where fishing takes place or where boats are moored. **Fishworkers in port areas have faced multiple displacement and Fishers say that they live like thieves on their own land.** No rights to land or homestead were ever recognised and they live at the mercy of the port officials with no access to basic services of water, sanitation etc. As creeks get blocked and expansion takes place within the port premise, fishers have to keep moving their boats and reconstructing their homes.

MARINE SECURITY INFRASTRUCTURE

- The BSF is a main source of conflict for the fishworkers. Militarisation of the region in the form of constant presence of security forces has impacted the fishworking community both physically as well as psychologically. Arbitrary restrictions are put on fishing, in the case of Jakhau Port the auction port has been occupied by the BSF and everyday intimidation is common. **Fishers traveling outwards in search of adequate fish catch are crossing into Pakistani water territories and are arrested an detained for long periods of time.** Further militarisation of coastal areas seems eminent with the formation of a special branch of police called marine police, as well as the movement towards using state reserve forces to guard 'critical infrastructure' such as dams, ports and oil terminals.

IN CONCLUSION

During the course of the research it became evident that fishworkers are caught between an increasingly industrialised coastline, rapidly depleting marine resources and artificial national boundaries and demarcations in the seas. All three are deeply interconnected and are squeezing the traditional fishing community from three sides - leading to their dispossession and disenfranchisement. Whereas the forms of industrialisation have differed over the years, the net impact on the fisher-people has been the same.

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CH 3:
REALITY

RETREAT IS NEVER AN OPTION

CHITHIRA VIJAYAKUMAR IN CONVERSATION WITH MAGLINE PHILOMENA

Chithira Vijayakumar is a journalist and researcher who works with issues of environment, gender and decolonisation. They worked with The Hindu in Chennai, and also uses theater as a medium for addressing oppression and trauma.

For decades, Magline Philomena has been a nuclear force behind some of the most organised, intersectional and creative responses to the violence and injustice faced by fishworkers in India. She has campaigned for the rights of women workers in particular, who continue to be rendered invisible. Through Sramasakthi, a women's self-help group, Sthree Vedi, Self-Employed Women's Association, and more, Magline has challenged corporate incursionsa of the coastline, worked to secure several victories for women workers, and turned up the volume on their demands to work with dignity and freedom.

Q: You are someone who has been at the forefront of several major struggles in the country, not just for the seas and fisherfolk, but for the forests, the hills, and everything threatened by unchecked corporate interests. You have consistently worked at building inter-movement solidarity. Can you tell us why that nature of work is important to you?

A: Every single one of those battles has been the same. The forms they assume, their names and their strategies might be different, but they've all been for one simple goal - the right to continue to live on the very lands onto which we were born. **Our enemy is also one and the same - everyone and every ideology that puts profits before people.** So every slogan we've raised against POSCO, against Endosulphan, against Coke in Plachimada[1], against the hydroelectric project in Silent Valley[2], all of them have been directed towards the same adversaries. It also comes from a deep sense of interconnectedness – the oceans need the forests, the forests need the lakes, the lakes need the fish, the fish need the birds, and so on. You can't have one without the other.

Q: The oceans are often referred to and revered as a 'mother', and a 'goddess'; but women have rarely enjoyed uncomplicated access to it.

A: We grew up surrounded by several myths about women. If we went and stood at the shore with our hair untied, it was said to bring bad luck to those who went out to sea. If we touched the nets while we were menstruating, the men would then have to perform an elaborate 'cleansing ritual' to remove the pollution and bad luck from it. If anyone met with danger out at sea, it was believed to be because the women at home had been unfaithful. But many of these ideas are changing now.

Q: Women's labour in the field of fisheries has historically been undervalued and deemed informal. Could you give us a picture of exactly how much of the work is actually being done by them?

A: There isn't a single area in which women aren't active workers in the fishing industry. While the act of going out to sea used to be male-dominated, even that situation is slowly changing. The catch has been falling all over the country for a while, which has meant that men are starting to move away from fishing, since the profits aren't are as high as they used to be. But women cannot abnegate their responsibilities to their families, we cannot afford to sit back and say that we won't work. People have to be fed and clothed and taken care of. So more and more women are now heading out into the sea to fish - which is also to say that our responsibilities have multiplied. Aside from the act of fishing itself, we make the nets, we're there on shore when the catch comes in, we pull the nets, we carry the fish, we process the catch, we sort, clean, dry and smoke the fish, we harvest clams, we take the catch to the markets, we travel from place to place with heavy loads, and we work in prawn factories doing peeling and cleaning. But of course, **the government has never acknowledged women as fishworkers. We make everything from the ropes that haul the boats in, to the very bags that the catch is carried in, but we're still invisible in this field.**

Q: There is clearly a tremendous amount of skilled labour in the hands of women. Is that being threatened by mechanisation?

A: The Indo-Norwegian Project of the 1960s brought several cataclysmic changes to the fishing industry in India. The first trawlers in our seas came out of that project. We had no big harbours in the country at the time, but the trawlers necessitated them. Bigger harbours meant factories, and factories meant that we started exporting more. **So our demand grew endless, and the mesh of our nets grew smaller and tighter.** Nothing is allowed to survive in our oceans anymore. **It was a project that systematically went about destroying the livelihood of millions of women, as everything from net-making to processing the catch began to become mechanised.** It was a project that was more enamoured with technology,

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[1]In 1999, the Hindustan Coca-Cola Beverages Private Limited, a subsidiary of the Coca-Cola company, established a plant in Plachimada, in the Palakkad district of Kerala. Coca Cola was drawing around 20 lakh litres of groundwater per day from six borewells and two ponds, leading to the depletion of water levels in the area. After a protracted people's struggle, the Coca-Cola plant was forced to shut down.

[2] A struggle that lasted over ten years ended up saving a moist evergreen forest in the Palakkad District from being destroyed by a hydroelectric project.

than with the flesh-and-blood humans involved in the work. Now, we find that these women who have been pushed out of their traditional jobs end up working as maids in the houses of upper caste folks. Women who used to be independent and had their own vocation, have now become slaves to work for others. **We've lost our freedom.**

Q: Why have years of organising within the community not been effective in changing this scenario?

A: Even within the organisations that claim to represent fishworkers, women aren't seen as active political agents. Most of them use women as a front, to pretend that they are diverse, and willing to address gender issues. If that were really the case, why do so few women hold positions of power? **In every committee, we're relegated to the role of 'Vice'-President, the 'Joint'-Councillor – we're never the President, never the Councillor!** Enough with this hyphenated rubber stamps. Why are we sold the lie that we're not capable of handling these issues? I know 18-year-old women who go out into the deep sea and bring back glistening hauls of fish. I know women who travel the length and breadth of this country by themselves, selling dried fish. **At meetings that claim to represent fisherfolk, the main role that women are given is to present a 'Mukkuva Dance' for the cultural program! Tell me, do you think a single man has ever been asked to dance at a political meeting when they're demanding their rights to survival? Why are we always the objectified ones?**

Q: So women continue to have their needs ignored even within the community?

A: Yes. Did you know that if women die at sea,they get no benefits? The real economy of the sea is in the hands of the women. From the moment the catch arrives on land, every part of the work is taken over by us, and yet we remain neglected when it comes to wages, sexual harassment issues, excess tax and loading charges, harassment for street-vending, off-season welfare, access to the harbours, attacks by goondas and issues within the family. Women who work in the inhuman conditions of prawn factories squat on ice for hours, and they all have severe dermatological, muscular and gynaecological issues.The situation of migrant women workers is even worse. There are no shelters meant for them, so they sleep in lorries or make-shift sheds, constantly vulnerable to violence. I've seen them sleep next to gutters, and in filth. There are no toilets in the markets for us to use, which becomes even more difficult when we're menstruating. We do not even have access to drinking water.

Q: Would a women fishworkers' union be able to tackle these issues more effectively?

A: Without doubt. The most important question we should be asking is this: who does the coast belong to? Why do the people who have been living by the sea for centuries have the least say in what happens to it? Who decides our fate? Who decides the fate of all the life in the sea? Everything else is secondary – as long as we have no rights to our land, nothing else we do will matter eventually. We would also like to organise for the welfare of migrant workers and the child labourers in the prawn factories, and for minimum wage. None of these issues are addressed today- the only things that are talked about are trawlers and foreign vessels. Sure, they're important; but there's so much more that's ailing our nation's coasts. **As women workers, we are demanding solutions, not these political adjustments.** Just as the indigenous and tribal folk in our country are given certain rights to land and way of life, we who live and die by the sea should have rights too. The way things are now, the coast does not belong to us. A mobilisation of people who live by the sea to challenge this has not happened yet. And it will not happen, as long as women stay silenced by the men, and their imagination of us. We are capable of fighting a battle, and we are capable of winning it.

Q: The nature of strikes and political protests has changed over the years; and simultaneously, the space available in public discourse for deeper and more complex conversations around labour issues have been shrinking. Do you think the two are related?

A: Yes. The pattern of protest now is to have a one-day strike with eight or ten demands. After a few days, one or two of the demands are met in some capacity, and the rest are forgotten. They like to say that it is a compromise, an 'adjustment'. We are not here to strike for adjustments. Our policy is to strike for one single demand.

Q: Is that what we're seeing in Puthuvype[3]?

A: Yes, the loudest response we can give right now to the world is Puthuvype. That too was originally only a one-day strike! It's only when women and children got involved that it turned into the massive movement it is today. We've crossed 230 days of endless protest. Men do not have the endurance for political struggle that we have - one lathi charge and they scatter. We have sat there through severe police brutality, the rain, the heat, and watching our families struggle. We have exactly one demand, and we're stating it loud and clear – we will not allow the construction of IOC's LPG terminal at Puthuvype to happen.

Q: The innovative strategies used in Puthuvype garnered a lot of media and public attention. Could you tell us how that came about?

A: At first, the women were asked to march with brooms and dustpans on the streets – in the stereotypical style that has become attached to us, since these are considered to be the 'tools' of our labour. We refused. We said we would march with sticks. We knew we'd be attacked, so we wore makeshift helmets. We had loud and piercing whistles, and we shouted 'IOC Go Back!' This march became extremely successful. People approached us and said we were really becoming women warriors, abandoning our dustpans and our rags. But at the end of the day, it comes down to this – when the cops charge at us, we don't abandon our post. We stay. And we have continued to stay, till this very day.

Q: What would support from other quarters look like, ideally? How can people support the work you are doing?

A: My feminism comes from growing up in a family where I watched my father heat water for my mother's bath every day, from watching him wash her clothes, from watching them support each other and us. My education didn't come from a university, my convictions don't come from textbooks, and my ideas aren't from a syllabus. My university has been my life, lived in fullness with all of its trials and tribulations.You have to realise that we're fighting these battles for you too. The health of the seas and the forests affect every single one of us. Wherever there is a fight for survival, for dignity, whether it's the adivasis or the dalits or the farmers, we will be there. Right there at the forefront.

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[3] Puthyvype is currently one of the most active sites of people's protests in the country, organised in opposition to a proposed LPG import terminal. There have been several instances of police brutality and violence against the women and children who are currently on strike.

MARINE PROTECTED AREAS IN INDIA

PROTECTION FOR WHOM?

RAHUL MURALIDHARAN AND MADHURI RAMESH

Rahul Muralidharan and Madhuri Ramesh are Ph.D. students at Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore. Madhuri is also with the Dakshin Foundation, Bangalore.

The creation of Marine Protected Areas (MPA) is widely believed to be an important means of ensuring two major objectives: the conservation of biodiversity, as well as the replenishment of fisheries. In other words, MPAs are believed to ensure the sustainable development i.e., economic development without depletion of coastal and ocean resources. Therefore, across the world, expansion of existing MPA networks is supported by several international bodies such as the International Union for the Conservation of Nature (IUCN), United Nations Sustainable Development Goals (UNSDG), Convention on Biological Diversity (CBD), and the World Bank's Global Partnership for Oceans (GPO).

However, in the case of India, the main objective for the creation of MPAs has been the protection of wild-life (including both plant and animal species). This is because MPAs in India are based on 19th century American ideology that promotes the view that nature conservation can occur only in un-inhabited and un-used areas. While the first MPA in India, the Point Calimere Sanctuary, was set up as early as the 1967 for the protection of wetland and migratory birds, it was only during the 1980s and '90s that there was a large-scale attempt to establish an MPA network and prevent the rampant loss of coastal and marine biodiversity. Over the years, these efforts have been supported at the national level by different laws such as the Indian Wildlife Protection Act (WLPA), 1972 Environment Protection Act (EPA), 1986 and the Coastal Regulation Zone (CRZ) notification, 1991. On the ground, due to the focus on wildlife protection and neglect of social considerations, many MPAs have negatively affected the lives of coastal communities, especially small-scale fishers (SSFs), as they opine such enclosures deprive them of access to important marine resources and do not really contribute towards sustainable fisheries.

CONFLICTS AND CHALLENGES AROUND MPAs

In tropical, developing countries such as India, MPAs are usually set up in near-shore areas such as coral reefs, mangroves, estuaries, mudflats and sea turtle nesting beaches because these habitats have high biodiversity value. Similar to terrestrial PAs, they are managed by the 'fences and fines' approach. In this, a core zone i.e. a particular portion of the coastal/marine habitat, is demarcated as a no-access zone. Buffers are created around this core zone and within these fishing and some other activities are allowed. However, the core and buffer zones are often designated without proper assessment of the distribution of marine species, so fishers lose access to resource-rich areas that fall inside the core zone. Moreover, MPAs come under the State Forest Department and this institution's lack of knowledge and training with respect to management of marine spaces and species - intensifies the conflict. Even when multiple government agencies are engaged in policing and protecting MPAs, there is conflict because all of them overlook the needs and rights of fishing communities. This is particularly true of MPAs that lie near international boundaries. Eg: Gulf of Kutch Marine National Park (Indo-Pak border), Sundarbans National Park (Indo-Bangladesh border) and Gulf of Mannar Marine National Park (Indo-Sri Lankan border). A majority of SSFs, using small, beach-landing crafts are badly affected in particular as they have to keep their vessels further away as well as invest more time and energy to find fish beyond the boundaries of the MPA. Mechanised fishers on the other hand, are not as severely affected because they can go longer distances to fish. And in general, mechanised fishers receive more financial and infrastructural support from the State Fisheries Departments. Therefore, being better off, many of them are also able to pay the fines or bribe or intimidate the guards and managers, so that they can continue fishing inside the MPA – as is the case in Gahirmatha Marine Sanctuary and Gulf of Mannar MPA for instance. Here, the negligence of both Forest and Fisheries Departments has resulted in SSFs bearing the brunt of conservation laws while other industrial actors, including bottom-trawl fishers, continue to violate regulations.

After India signed the Convention on Biological Diversity (CBD) in 1994, MPAs began to receive funding from international donors such as the Global Environment Facility (GEF), United Nations Development Program (UNDP), and United National Environment Program (UNEP).

The CBD aims to conserve biodiversity, promotes sustainable use of natural resources and fair and equal benefit sharing of utilisation of genetic resources. Many of these agencies acknowledge the importance of adopting participatory, community-based management of MPAs instead of a top-down model.

However, the lack of coordination between different arms of the state, as well as poor communication and the low level of trust between the state and SSFs remain serious obstacles. For example, in the Gulf of Mannar, UNDP and GEF funded the Gulf of Mannar Biosphere Reserve Trust (GoMBRT) to coordinate the activities of different agencies such as the Fisheries and Forest Departments, Coast Guard, Indian Navy, Customs, Pollution Control Board and various research institutions. As per the donor's terms, the GoMBRT created village marine councils and eco-development committees. But at the same time, it classified entire villages as 'threats': villages with full-time SSFs were classified as high threats and those with part-time SSFs were classified as medium and low threats. Therefore, management of the reserve continued to be top-down, biased and conflict-ridden (Rajagopalan, 2008). Another obstacle has been the inertia of fishing communities themselves with respect to monitoring the state of marine resources, and adapting their fishing techniques and intensities accordingly.

MPAs IN THE BLUE ECONOMY

Implications for SSFThe Government of India recently introduced the Blue Economy plan, which promotes the productive use of oceans for economic trade and maritime security. Given this focus, it is evident that many more coastal development projects such as ports, fishing harbours, power plants and industries are envisaged. This type of intensive infrastructure development, accompanied by weak enforcement of existing environmental laws with respect to pollution, coastal construction, mechanised fishing, etc. are likely to increase the vulnerability of SSFs as these fishers rely on free access to near-shore resources and beach spaces for their livelihoods. **In addition, there are also plans to increase the number of MPAs, from 130 to 237, in order to meet the international CBD (Aichi) targets for 2020 and 'balance out' the environmental impact of the national Blue Economy plans.** This is a serious cause for concern – First, in the absence of larger ecosystem level planning and management, the creation of MPAs alone will not ensure the health of marine species and ecosystems irrespective of whether such spaces are managed by the state or by local communities. Secondly, the Aichi targets call for creation of multi-use marine reserves in order to ensure food security and protect livelihoods. However, in the Indian context, MPAs are demarcated only by the Forest Department and are targeted at protecting wildlife rather than economically important marine species. Therefore the creation of new marine reserves to promote regulated, sustainable fisheries and thereby ensure the well being of SSFs in particular will require a shift in the existing legal and administrative framework. Otherwise, it might simply increase the social and economic marginalisation of SSFs as large economic projects on the one hand and intensive wildlife conservation efforts on the other will displace them.

CONCLUSION

Sustaining fisheries by engaging in conservation is essential, as fisheries are an important source of livelihood to millions of Indians. Whether MPAs in India are able to increase fish yield or conserve biodiversity is up for questioning, but the new wave of plans for coastal infrastructure development will jeopardize our ability to sustain near-shore fisheries. In a scenario where government and non-government agencies are united in promoting the rhetoric of 'producing value' from ocean resources, it is imperative that SSFs make themselves visible to policy makers in both these groups and earn their formal recognition. SSF can and should be involved in framing policies, ensuring implementation and creating a climate for sustainable fisheries. Given the long history of successful SSF engagement with regional and national policies in India, we are optimistic about SSF's ability to bring about meaningful transformations in the Blue Economy and biodiversity conservation sectors.

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- The International Union for Conservation of Nature (IUCN) defines an MPA as "any area intertidal or sub-tidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment" (Kelleher & Kenchington, 1992).
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THE CHENNAI STATEMENT

REPRINT FROM "SOCIAL DIMENSIONS OF MARINE PROTECTED AREAS IMPLEMENTATION IN INDIA: DO FISHING COMMUNITIES BENEFIT?"

We, representatives of artisanal and small-scale fishworker organisations, organisations in support of fishworkers, environmental groups, and the scientific community, committed to equitable and socially-just conservation, use and management of coastal and marine living resources, having participated in the workshop on "Social Dimensions of Marine Protected Area Implementation in India: Do Fishing Communities Benefit?" in Chennai from 21 to 22 January 2009;

Conscious of the importance of fisheries and of the high dependence of millions of fisherpeople on fisheries, and of the fact that that marine and coastal ecosystems are rich spawning and breeding grounds, and provide vital coastal protection benefits;

Being concerned about the livelihood problems encountered by at least ten per cent of the active marine fisher population of India from unfair restrictions on their fishing operations in the course of implementing marine and coastal protected areas, such as the Gulf of Mannar National Park, Tamil Nadu; the Gahirmatha (Marine) Wildlife Sanctuary, Orissa; the Gulf of Kutch Marine National Park and Sanctuary, Gujarat; the Sundarban Tiger Reserve, West Bengal; and the Malvan (Marine) Wildlife Sanctuary, Maharashtra;

Being further concerned that non-fishery activities that have a destructive environmental and ecological impact on marine and coastal protected areas, such as indiscriminate pollution and habitat degradation from industrial activities, are not being regulated, and that fishing communities are, therefore, disproportionately bearing the costs of conservation measures;

Being aware of the importance of effectively addressing livelihood and occupational interests of fishing communities, living in and around marine and coastal protected areas, within the framework of an integrated approach to conservation, use and management of coastal and marine living resources;

Do hereby recommend:

1. Integrate fundamental principles of participation, environmental justice, social justice, and human rights into the implementation of marine and coastal protected areas

- Full and active participation of fishing communities in decision-making at all stages of marine and coastal protected area identification, planning, designation, implementation, review and evaluation should be ensured, in policy, law and practice, to meet both social and conservation objectives, drawing upon good practices within and outside India.
- Fishing communities should be considered as allies, and community-led initiatives for management and conservation should be recognised and supported; diverse, participatory and site-specific approaches for the conservation and management of coastal and marine resources, should be promoted;
- Fishing rights of small-scale fishers using sustainable fishing gear and practices should be protected. Should fishing activities be regulated, adequate compensation should be provided, and a systematic and participatory approach for enhancing and diversifying livelihoods of affected communities should be adopted;
- Implementation of existing marine and coastal protected areas should be reviewed on an urgent basis, in the light of principles of participation, environmental justice, social justice, and human rights, with a view to addressing issues facing fishing communities in these areas; **New marine and coastal protected areas should be considered only after transparent mechanisms, incorporating principles of participation, environmental justice, social justice, and human rights, for designating and managing such areas, are established;**

2. **Address threats to coastal and marine ecosystems from non-fishery sources.** Stringent measures to prevent pollution and degradation of marine and coastal habitats from non-fishery sources such as ports, shipping lanes, tourism development and other related activities, within and outside the protected areas, should be adopted; and, existing legal provisions should be strictly implemented;

3. Enforce marine fishing regulation act in all the states and union territories. Effective implementation of marine fishing regulation acts in territorial waters, particularly enforcement of non-mechanised fishing zones, mesh size regulation and the regulation of destructive fishing gear and practices, such as use of explosives, bottom trawling and purse-seining, should be ensured to improve fisheries conservation and management in territorial waters. Co-management arrangements should be considered to improve the effectiveness of fisheries management;

4. Adopt legislation to conserve and manage living resources of the EEZ. **An effective conservation and management regime for living resources, including fisheries, of the entire Indian exclusive economic zone (EEZ) should be developed through a participatory process.** In this context, reviewing, amending and strengthening relevant legislation, including the marine fishing regulation acts, and adopting an environmental action plan for fisheries, setting out measures that can be used towards conservation and management of fisheries resources, should be considered;

5. Adopt an integrated approach for the management of coastal and marine living resource.

Collaboration and co-ordination, in particular, between the Ministry of Agriculture and the Ministry of Environment and Forests at the national level, and between departments of fisheries and forests at the State level, should be improved. Better cross-sectoral co-ordination between relevant ministries with jurisdiction over the coastal and marine space, and between research institutions and non-governmental organisations, should be established.

In conclusion, we urge recognition of the need for an integrated and participatory framework for conservation, use and management of marine and coastal living resources that secures the preferential access rights of fishing communities to coastal and fishery resources. This should be consistent with India's obligations and commitments under the 1948 Universal Declaration of Human Rights (UDHR), the 1982 United Nations Convention on the Law of the Sea (UNCLOS) the 1995 FAO Code of Conduct for Responsible Fisheries (CCRF), the 1992 Convention on Biological Diversity (CBD), and the United Nations Millennium Development Goals (MDGs).

–This Statement is from the workshop on "Social Dimensions of Marine Protected Area Implementation in India: Do Fishing Communities Benefit?", held in Chennai during 21-22 January 2009.

SIGNATORIES

Organisations

1. National Fishworkers' Forum (NFF)
2. Malvan Taluka Shramik Machhimar Sangh, Maharashtra
3. Sundarban Fishermen's Joint Action Committee, West Bengal
4. Ramnad District Fishworkers' Trade Union, Tamil Nadu
5. Vangakadal Meen Thozhilalar Sangam, Tamil Nadu
6. Orissa Traditional Fishworkers' Union (OTFWU), Orissa
7. International Collective in Support of Fishworkers (ICSF)
8. South Indian Federation of Fishermen Societies (SIFFS)
9. Kalpavriksh
10. Greenpeace India
11. DHAN Foundation
12. Dakshin Foundation
13. Action for Food Production (AFPRO)
14. Integrated Coastal Management (ICM)
15. WWF India
16. Project Swarajya, Orissa
17. SETU Information Centre, Kutch, Gujarat
18. Group for Nature Preservation and Education (GNAPE), Tamil Nadu
19. Protsahan, Kerala
20. Direct Initiative for Social and Health Action (DISHA), West Bengal
21. Fisherfolk Foundation, Andhra Pradesh

Individuals:

1. Kartik Shanker, Assistant Professor, Indian Institute of Science (IISc) and Dakshin Foundation, Bangalore
2. B.C. Choudhury, Professor, Wildlife Institute of India, Dehradun
3. Ashaletha, Senior Scientist, Central Institute of Fisheries Technology (CIFT), Kochi
4. V. Sampath, Ex-Adviser, Ministry of Earth Sciences, Government of India
5. Sanjay Upadhyay, Advocate, Supreme Court and Honorary Managing Trustee, Environment Law and Development Foundation, New Delhi
6. M. Rachel Pearlin, Citizen consumer and civic Action Group (CAG), Tamil Nadu
7. Manish Chandi, Research Associate, Andaman and Nicobar Islands Environmental Team (ANET) and Research Affiliate, Nature Conservation Foundation (NCF), Karnataka

WHAT IS BLUE CARBON?*

MADS BARBESGAARD

Mads Barbesgaard is researcher at the Transnational Institute (TNI) and PhD-student at Lund University, Sweden. TNI is a research and advocacy institute committed to building a just, democratic and sustainable planet. For more than 40 years, TNI has served as a unique nexus between social movements, engaged scholars and policy makers.

Blue Carbon refers to CO2 stored in coastal ecosystems, notably, mangroves, tidal marshes and seagrass meadows. The concept was first introduced by a number of UN-institutions in 2009 in a report titled 'Blue Carbon: the role of healthy oceans in binding carbon'. In line with the Ecosystems Services Framework's approach to nature- society relations, where "nature is a stock that provides a flow of services to people", the report stresses how the coastal ecosystems through their ability to capture and store carbon provide a major 'service' in the fight against climate change. This service, the report argues, make coastal ecosystems a key tool to mitigate global greenhouse gas emissions.

*This section is republished from the report – 'Blue Carbon: Ocean Grabbing in Disguise?': https://www.tni.org/en/publication/blue-carbon-ocean-grabbing-in-disguise

While similar mitigating abilities of rainforests and other land-based resources has been recognised for some time, this was still not the case for coastal ecosystems. Consequently, the report makes the case for protecting and revitalizing coastal ecosystems by documenting their ability to absorb and store carbon, argue for the need to 'value' this service appropriately and to create mechanisms to allow for trade in 'blue carbon'.

In tune with the logic in the already existing REDD+ mechanisms, a prerequisite for trading is putting a monetary value on coastal ecosystems. Blue carbon projects therefore aim to value these areas based on how much carbon they can capture and store and open them up for investment that - it is assumed - will ensure protection. This will in turn give the investor (e.g. governments, transnational corporations etc.) an amount of carbon credits corresponding to the stored and expected capture of carbon, which in theory 'offsets' carbon emissions elsewhere. In other words, according to this scheme, a business activity that pollutes in one location is portrayed as being able to make up for this harm by "investing" in activities deemed carbon capturing in another location. These carbon credits would ideally be traded through carbon markets in the future. And, not least, these Blue Carbon Projects should involve 'win-win' mitigation strategies where the investment to protect the area also 'promotes business, jobs and coastal development opportunities.'

WHO IS PUSHING BLUE CARBON AND HOW?

Following the initial stream of reports from the different UN-bodies, the role of Blue Carbon was first discussed in the context of the UNFCCC in the Subsidiary Body for Scientific and Technological Advice, which provides input to the yearly COPs, in June 2011. Initially pushed by Papua New Guinea, there was reportedly wide agreement that there should be done more research on the role of Blue Carbon and that it should formally be included to the working group's agenda. However, this was blocked by Venezuela and Bolivia that stated the proposal was an "'underhanded' way to include new market mechanisms on the agenda under the guise of a research item." As a result, since then, instead of pushing Blue Carbon as a separate issue through the UNFCCC, the main focus of the proponents has been to broaden out existing UNFCCC-mechanisms, like REDD+ to include coastal ecosystems. Currently, Indonesia, Ecuador, Costa Rica and others are already doing so.

WHY IS IT A FALSE SOLUTION?

The increased focus on the vital importance of coastal ecosystems is commendable. People relying on these resources for their livelihoods have for years been stressing how the well-being of these socio-ecological systems are crucial for hundreds of millions of people. However, while this increased attention is perhaps positive in itself, blue carbon projects have been called a 'false solution' by social movements. Blue carbon projects' central principle is a wider belief that market logic provides the best tool to organise society and, herein, conserve nature. Blue Carbon is therefore yet another example of the ideological shift in conservation practice: "Increasing numbers of conservation interventions run on the assumption that the biggest obstacle to effective conservation is that nature has not yet been adequately commodified." What the proponents fail to acknowledge however, is that in contrast to their assumptions of the unfolding of a benevolent and efficient market, commodification of nature in reality involves massive shifts in and struggles over social relations (e.g. ownership of natural resources), socio-economic (in)equality and power more broadly. Not to mention the fact, of how nature is reduced to a commodity that only has true value in so far that it is used by humans. Basically, many of the core issues to the environmental justice perspective are completely overlooked. The following sections elaborate a little on this critique.

A SMOKESCREEN

While Blue Carbon Projects perhaps at the outset sound like a good and straight forward solution that will lessen the immense challenge presented by the climate crisis, this is in a sense precisely the problem. **Blue carbon projects act as a smoke-screen diverting attention away from the systemic changes needed to stop the climate crisis.** Instead, the reasoning behind the projects, stress that actors, be they states or transnational corporations, can have a 'net positive impact' in terms of their emissions if they provide investment for enough blue carbon projects. More bleakly, they can continue to pollute and destroy one place, as long as a coastal ecosystem that stores and absorbs carbon somewhere else is 'protected'. Thus, far from combatting the root causes of climate change and destruction of crucial ecosystems, blue carbon projects legitimise continued emissions, mainly from the Global North, by protecting selected ecosystems, mainly in the Global South.

Furthermore, this tit-for-tat approach requires that nature and its 'services' anywhere and everywhere can be reduced to a certain value and compared to the value of alternative economic practices in such areas (aquaculture, agriculture etc.). The idea then is that through payments for the ecosystem services of NOT pursuing these alternative economic practices, the use can be tilted towards what is deemed 'conservation'. Through these means, the Blue Carbon Initiative, aims to address the core drivers/ in the destruction of these ecosystems, which they identify as: "aquaculture, agriculture, mangrove forest exploitation, terrestrial and marine sources of pollution and industrial and urban coastal development." However, as Kathleen McAfee has explained with reference to similar projects on land, the underlying market- logic in this system will mean that instead of focusing on the large-scale, and more destructive variants of all these, which would require considerable economic payments before the actors would consider foregoing their profits in favour of 'conservation', **the projects instead target small-scale, less-destructive variants as these require less money to persuade.** As she writes, "As in [Payment for Ecosystem Services] projects, opportunity-cost criteria channel investment toward activities and places where conservation gains can be achieved for the lowest cost" and as a result, "market efficiency reasoning would restrict smallholder and communal land and forest use while allowing more profitable, more destructive activities to continue." So in other words, the need of these projects to be 'economically efficient' will by necessity mean that they can never challenge the main culprits of climate change making them the ultimate smoke screen. The next section goes more into depth with the problems in such a market-based approach.

'SELLING NATURE TO SAVE IT'

More than diverting attention away from solutions that would move us towards more profound systemic changes, the blue carbon projects' conservation can also end up doing more harm than good through their insistence on market-based solutions. As the preceding sections show, the tools for protecting blue carbon areas, is basically to draw them into the market system by giving them economic value and making them available on carbon markets. This is completely in tune with the dominant approach to conservation, where the main idea is that we must 'sell nature to save it' and as long as the price-tag is right, the market will by itself solve all problems.

Even if local communities do not directly lose access to the resource, we have seen how powerful actors' views of conservation efforts impact hugely on control of the resource, herein reducing customary or community rights and fundamentally changing the communities' relationship with the resource to a more narrow understanding of 'conservation'. As Credit Suisse, WWF & McKinsey explain quite openly in a report on 'Conservation Finance': "the local communities involved in such projects … need to develop more business acumen and financial literacy to roll out projects at scale and be able to participate in their development." In their view then, while local communities should perhaps not be expelled, they clearly have to change, as they currently have a flawed relationship to nature and do not understand the true value of the ecosystem that they in many cases have been living with and off for generations.

As can be read on Livelihood Fund's description of their Blue Carbon project in the Sunderbans, India: "We help rural communities restore and preserve their ecosystems to improve their livelihoods. This socially-valuable programme will impart knowledge and skills to the women, elevating their statuses in the local communities and empowering them with a sense of pride that they are part of an environmentally-relevant project that has a significant impact on their daily lives."

This approach suggests that the people living off and with the resources do not themselves know the importance of these resources. It stands in direct contrast to what social movements of small scale fisher peoples are saying themselves: "Instead of these corporate-friendly false solutions, **we, the small-scale fishers, together with other small-scale food producers, have the socially and ecologically just visions and solutions to climate change.** Our indigenous traditional knowledge and culture is an entire way of life that is about sustaining communities and nature, not about profit."

COASTAL TOURISM IN INDIA

LOBBYING TO DISPOSSESS

EQUATIONS*

EQUATIONS (Equitable Tourism Options) is a research, campaign and advocacy organisation. We study the social, cultural, economic and environmental impacts of tourism on local communities. We believe that tourism should be non-exploitative, equitable and sustainable. A question that has been central to our work and directs much of it is 'Who Really Benefits from Tourism?

Coasts and beaches are a major crowd-puller for the tourists as they present the perfect holiday setting with the sun, the sea and the sand. Constructions for hotels, privatised beaches, artificial pathways, golf courses – all find a home on the coasts in the name of tourism. High-end luxury tourism, such as luxury cruises are on the rise. New projects like special tourism areas and seaplanes are being proposed for development along the coast to boost this sector. However, the tourism that is being promoted today on the Indian coasts is large-scale, mass-market and consumptive in nature.

*Paper written by Swathi on behalf of Equations

Financial institutions play a major role in pushing tourism on to the coasts, without taking into account local interests, capacities, challenges and the aspirations of the local people. Not only is this kind of tourism unsustainable, it systematically alienates the unorganised sector, which contributes hugely to the local economy. Taxi drivers, shack owners, owners of small and medium enterprises, are responsible for providing services to a major percentage of tourists and yet they are seldom extended any space in planning and policy making which would make sure their voices, aspirations and opinions are taken into account. As a result benefits such as tax holidays and subsidies are only accorded to the formal tourism sector.

Through this piece we look at ways in which policy makers and industry collude to create market friendly policies and projects to support the growth of mainstream coastal tourism.

BACKGROUND LEADING UP TO 2015:

The first amendment to the Coastal Regulation Zone (CRZ) Notification was because of pressure from the tourism lobby. The tourism industry argued that the prescribed 200 meters of "No Development Zone" (NDZ) restricted them from competing with beach hotels of countries where no such restrictions existed. Under pressure, the Ministry of Environment and Forests (MoEF) amended the CRZ Notification in 1994 reducing the NDZ area all along tidal water bodies. Since then the CRZ has been amended 21 times between 1994 and 2005, each dilution weakening the regulatory regime further, many of these at the behest of the tourism industry. **Much of the tourism related developments that the average tourist experiences today are as a direct result of dilutions and violations of regulatory mechanisms.**

THE CURRENT SITUATION OF COASTAL TOURISM AND SUSTAINABILITY IN INDIA:

In 2015, the Ministry of Tourism announced a Draft National Tourism Policy, which gives clear impetus to beach tourism, adventure tourism on the coasts and cruises on rivers and the coasts. The most important aspects of the draft policy are its proposed action points, which are:

- "Encourage States to establish Beach Development Authorities for planned development and upkeep of beaches on a revenue-generating model.
- Review of legislations relating to Coastal Regulatory Zones (CRZ)"

On Beach Development Authorities: Public governance and mechanism of accountability of administration to citizens has changed in recent years. One of the main factors diluting the norms of public accountability is the shift of approach of governance from welfare state to market led neo-liberal state. In the humdrum of investment oriented large development agendas the process of participatory planning and decision making is being abandoned by most governments, both at the centre and in the states, through the promotion of para-statal bodies (PSBs). These PSBs are executive in nature, the composition of members are drawn from the various executive heads of the government departments that are considered important for taking forward the mandate for which these bodies are constituted. **One of the striking feature of the PSBs is that the elected representatives from the Panchayati Raj Institutions (PRIs) are not included while constituting them. The design is to centralise decision making in the hands of the state, and create parallel structures of governance which are vested with more power and authority than the panchayats.**

In most of the large local bodies, the state has not devolved adequate powers and thus manages the activities through creation of parastatal organisations like the proposed Beach Development Authorities.

Additionally, **the Environment Impact Assessment (EIA) Notification in 2006 diluted Environmental Clearance requirements for tourism projects, by clubbing it under category of Industry. Thus shrinking democratic spaces that would have been available to communities to decide on the tourism development occurring in their own backyards** or even voice their dissent/ consent to such projects under the available Environmental Clearance regulations.

On the dilution of CRZ rules: States like Maharashtra, Karnataka, Kerala, West Bengal continue to pressurise the Ministry of Environment, Forests & Climate Change (MoEF&CC) to change even the tokenistic regulation vis-a-vis tourism in the 2011 Coastal Regulation Zone Rules. Some of the more critical limitations of the CRZ 2011 and its Annexure III[1] in the context of tourism are:

- Tourism continues to be allowed in vacant plots between 200 & 500 m in CRZ III area. In the past, this provision has been misused by allowing tourism establishments by converting common property resources and agricultural land.
- MoEF continues to not define the term "designated areas" thereby allowing for subjective interpretations. This would make possible the converting of coastal zones into Special Tourism Zones and bringing the administration of areas under development authorities. All these models have led to reversal of the process of decentralisation of power in contradiction to the 73rd and 74th Amendment of the Constitution. There is every possibility of governments, both central and state, to exploit this provision in their relentless drive for acquisition of land to facilitate new infrastructure and industrial development and facilitate the interest of the investors for the development of tourism in the country.
- The hazard line does not take into consideration the components of various eco systems for example the ecological boundary of sensitive areas. Moreover, to safeguard the coastal zones from unregulated activities like tourism, mining and infrastructure development, the provisions of CRZ I, II and III should be adhered to while permitting activities based on the hazard line thus mapped. It will provide a better framework for prohibiting activities on the land ward side. Otherwise there remains a possibility of the creation of loopholes thus allowing vested interests to grab coast for activities like tourism.

Examples of coastal tourism projects supported by the State:

- Special Tourism Areas (STAs) have received state patronage since the early 1990s when it was first envisaged in the National Tourism Policy, 1992. Enclaves are often viewed as investments that have the potential to ensure a continuous and reliable flow of income through tourism across the year. Such STAs are promoted in the garb of benefiting the local economy. Enclavisation gives back little benefit to the local economy, but ends up exploiting the local resources, which many a times results in environmental pollution, socio-cultural effects and widened income inequalities. These enclaves are exploitative of the region's natural and labour

[1]Guidelines for Development of beach resorts or hotels in the designated areas of CRZ- III and CRZ- II for occupation of tourists or visitors with prior approval of the MoEF

resources and end up being non-remunerative as communities wait endlessly for some part of what tourists spent on their holidays to 'trickle down' to them.

What meaningful employment can local communities currently living in tourism areas hope for, which is high-end, skill-based, and usually spread over shopping malls, amusement parks, spas and luxury business hotels? The STAs will only increase the division without integrating capacity-building measures, in an industry that is already biased against local community/unskilled labour. It is also observed that employment opportunities are limited to low-end and menial jobs like housekeeping and support services like gardening, security guards, cleaning, and the occasional guides, except in cases where developers have taken special effort to build capacity of the local communities on language and skills.

Labour laws and regulations are being significantly diluted by many state governments to benefit "unhampered and even unaccountable" growth in the country. This has much relevance for tourism, as there are significant issues of labour rights and protection like contract labour, wages of working hours, gender disparity and discrimination, child labour (which is particularly high in hotels and restaurant sector) and even sexual exploitation in the industry. Thus, the fate of the large sections of informal and unorganised labour sector employed (or rather self-employed) in the tourism industry is likely to become even more pitiable.

SAMUKHA TOURISM PROJECT, ODISHA

The Master Plan for the Samukha Beach Area project was prepared in the year 2008. According to the master plan, the project area is to be developed on over 3000 acres near Puri at a cost of approximately Rs. 3500 crores and is being envisaged as a leisure cum business destination. These lands are coastal commons which have a healthy amount of coastal vegetation, offering the much needed protection from storms and which also serve as a source of natural produce like cashew that the local communities harvest for augmentation of their income. The nodal agency - Orissa Tourism Development Corporation (OTDC) - is the project implementation agency and the land acquisition agency is the Industrial Development Corporation Orissa (IDCO). Infrastructure for water & power supply up to the project site & access road to the site is provided by the government. The state government has made a commitment of Rs.117 crore for the above support infrastructure development.

PHASE 1

- Luxury hotels minimum 3 nos. of 4 / 5 star hotels / resorts
- 18 hole golf course of International Standards
- International Convention Centre
- International Spa with Wellness centre
- Urban entertainment with retail zone
- Sports facilities including tennis,swimming etc
- Shamuka Village including craftsmuseum, gurukul etc
- Theme gardens

PHASE 2

- Airstrips & Helipads
- Amusement & Theme Parks Disneyland
- Another 18 hole Golf course with Golf Resort
- River & Sea Sports facilities
- 2 star or above hotels for medium range Tourists

HOTEL INDUSTRY ON THE COAST – AN EXAMPLE FROM GOA

The hotel industry is a major violator of the CRZ Rules, 2011 in all states where coastal tourism is prevalent, however, it is critical to understand the complicit role of the politicians and violators. Given below is an example:

The people in Tivai Vaddo, Calangute, Goa, have been opposing the building of a hotel project in the plot no. 159/3 since 2002. Since 2013 their struggle has been against Delhi-based Nameh Resorts Private Limited who proposed to build a hotel on land ranging 15,118 sq mts, which extends from the beach to the middle of Tivai Vaddo. By 2013, almost 3000 sq mts of Tourism Department land on the beach front had also been encroached upon by the company and included within the project area. The land owned by the Tourism Department had been given to local people to park their boats in the sheds. Some of the violations include flattening of sand dunes located within 200 meters from HTL and erecting structures in their place, construction of permanent structures in the no development zone, encroachment of land under Department of Tourism, violating noise norms causing disturbance to people and damage of property, destruction of trees on the property[2] .

IMPLICATIONS OF UNREGULATED COASTAL TOURISM ON COASTAL COMMUNITIES:

- **Environmental damage to the coasts:**
  Littering by tourists, dumping of effluents from hotels in the waters and of garbage on the beach, visual and sound pollution are some of the environmental damage caused by the hotel and tourism industry. Cruises in the sea and rivers are letting out oil from the boats into the waters along with littering by the tourists. The deterioration of the quality of the coast line and waters is a matter of concern, as this affects the health of the fish, hastens sea erosion and is a health hazard to the people living on the coasts.

- **Changing demographics due to tourism:**
  Often big tourism establishments are owned by people from outside the region. For e.g. the owners of large resorts in the Sundarbans are either from Kolkata or Delhi. Coastal Goa has seen an onslaught of builders, corporations and even foreigners buying land and constructing hotels and guest houses causing indirect eviction of people from their homes. This has caused a change in land ownership patters as well as demographics, which in turn have implications for the social and cultural fabric and support system of the local communities. In some instances, it has caused a reverse effect on the mobility of local women, who are discouraged from leaving their homes in the evenings due to the large number of tourists on the roads, many of whom are inebriated, which causes fear in the local communities for the wellbeing of the women.
- **Migration in tourism:** Tourism causes both in and out migration. In Goa for example, workers in the tourism industry both in the formal and informal sector are migrants from the neighbouring states. Goans prefer not to work in the tourism industry due to the long hours of work and low wages, causing them to seek employment in other states or other countries, leaving open opportunities for employment for people from other regions. While there is nothing inherently wrong with this increased mobility, migrants in Goa face all kinds of injustices that come with migration. Vulnerability to precarious employment, inability to mobilise and organise themselves to struggle for better wages and working conditions, uninhabitable livingconditions, lack of adequate and safe shelter, lack of access to public health care, brutalities by the Goans due to the increased

[2] Details in Annexure 1

- animosity between the locals and migrants are some of the issues they face.
- **Privatisation of commons and change in land ownership and land use patters:**
  Large tourism projects encroach upon the customary rights of coastal communities where commons like the sand dunes, fish drying yards and boat landing sites are sought to either be privatised or used as a tourism product. With increased tourism, land becomes a market commodity to be bought and sold. Land is purchased in the open market by corporations and individuals from outside the region, thus dispossessing and displacing people from their own lands.

SUMMARY

The policy on coastal tourism is India is flawed. Coastal tourism is merely seen as a revenue generator for the government, which takes no significant steps either at securing the livelihood of the people or the stability of the environment. Continued unregulated development along the coast has proved to be to the detriment of the local communities. The coastal communities are traditionally engaged in fish work, subsistence farming, horticulture – all of which require adequate land and labour. However, with tourism dominating the coasts, all the traditional livelihoods face danger. The beaches which are the primary land requirement for fishworkers for docking and repairing boats and nets, drying and cleaning of fish are taken away. The waters near the shore used for water sports are also the areas used by the traditional small boats for fishing. Tourism is land intensive and land-holdings in subsistence farming are small

in this region, making it easier to swallow land for tourism infrastructure, which have direct implications on livelihoods as well as local food security. The tourism experience across the country shows that the kind of work that the local communities get are low-paying and at the bottom of the work hierarchy, such as cleaners, helpers, autorickshaw drivers and are largely contractual in nature. Because of this rampant growth of tourism in coasts, the people of coastal communities dependent on these resources and spaces have become alienated from their own lands and from their centuries old way of life.

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The draft Marine Coastal Regulation Zone Notification, 2017, the MCRZ-I zone, which was previously a no development zone, permits 'Temporary tourism related facilities such as walkways on stilts, rain shelters, public toilets, drinking water facilities, sitting / resting places and the like as a part of ecotourism plan without disturbing the habitat / features'.

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ANNEXURE 1:

DETAILS OF ENVIRONMENTAL LAW VIOLATIONS OF NAMEH RESORTS PRIVATE LIMITED, TIVVAI VADO, CALANGUTE, GOA

S, NO	LAW – CRZ NOTIFICATION 2011	VIOLATIONS
1	Prohibited activities within CRZ,- The following are declared as prohibited activities within the CRZ,-	
	(xiii) Dressing or altering the sand dunes, hills, natural features including landscape changes for beautification, recreation and other such purpose.	Nameh resorts has flattened sand dunes within 200 metres from the HTL
2	III. CRZ-III (ii) No construction shall be permitted within NDZ except for repairs or reconstruction of existing authorised structure not exceeding existing Floor Space Index, existing plinth area and existing density and for permissible activities under the notification including facilities essential for activities.	Nameh resorts constructed structures like office, store rooms (permanent structures) and sheds for labour in the no development zone
3	B. Area between 200mts to 500mts	
	(i) development of vacant plot in designated areas for construction of hotels or beach resorts for tourists or visitors subject to the conditions as specified in the guidelines at Annexure-III	
	(c) live fencing and barbed wire fencing with vegetative cover may be allowed around private properties subject to the condition that such fencing shall in no way hamper public access to the beach;	Nameh resorts have erected concrete fencing around its property including areas falling between 200 to 500 meters and in the land area encroached belonging to the tourism department. Access of the fishing communities to their boat sheds is hindered by this fence.
	(d) no flattening of sand dunes shall be carried out;	Sand dunes have been flattened which is evident from the remains of sand dunes and sand dune vegetation apart from photographic evidence
	(f) Construction of basement may be allowed subject to the condition that no objection certification is obtained from the State Ground Water Authority to the effect that such construction will not adversely affect fee flow of ground-water in that area;	Basement has been constructed but covered with sand by Nameh properties. An inspection and drilling will expose cement basement constructed and concealed.
	(n) the quality of treated effluents, solid wastes, emissions and noise levels and the like, from the project area must conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986;	Nameh resorts have clearly violated noise norms of 55 decibels in day time and 45 decibels at night time which is evident from the cracks developed in the neighboring houses due to vibration and noise created in the process of laying foundation for the building.
	(r) approval of the State or Union territory Tourism Department shall be obtained	Nameh resorts has not got any approval from the tourism department while encroaching upon tourism land in the seaward side of the property
4	3. CRZ of Goa-	
	(vi) sand dunes, beach stretches along the bays and creeks shall be surveyed and mapped. No activity shall be permitted on such sand dune areas;	Store rooms and labour sheds have been constructed by flattening sand dunes. Excavated earth has been dumped in the dune area.
	(viii) no developmental activities shall be permitted in the turtle breeding areas referred to in sub-paragraph (vii).	There is evidence that Tivvai Vado is a turtle breeding area and Nameh is developing a property where no development activities can be carried out. (Land encroached by Nameh properties belonging to tourism department)

DETAILS OF ENVIRONMENTAL LAW VIOLATIONS OF NAMEH RESORTS PRIVATE LIMITED, TIVVAI VADO, CALANGUTE, GOA

S, NO	LAW – PRESERVATION OF TREES	VIOLATIONS
1	The Goa Preservation of Trees (Amendment) Act, 2008 (Act No. 13 of 2008) published in the Official Gazette, Series I No. 10 (Extraordinary No. 2) dated 10-06-2008 and came into force at once.	There were two banyan trees and one tamarind tree inside the property, out of which the tamarind tree was cut and one of the banyan trees' roots have been completely suffocated while digging a pit, possibly for the proposed swimming pool.
	Chapter V 8. Restriction on felling and removal of trees.– Notwithstanding anything contained in any other law for the time being in force or in any custom or usage or contract and except as provided in this Act or the rules made thereunder, no person shall fell or remove or dispose of any tree or forest produce in any land, whether in his ownership or occupancy or otherwise, except with the previous permission of the Tree Officer: Provided that if the tree is not immediately felled, there would be grave danger to life or property or traffic, the owner of the land may take immediate action to fell such tree and report the fact to the Tree Officer within twenty-four hours of such felling.	Nameh resorts have excavated in such a way that a banyan tree's roots are killed which is an effort to subsequently kill the tree. The tree has also been mutilated by cutting off its major branches and it is now in a condition it will collapse any time. It is apparent that Nameh resort is trying to get rid of the trees which hinder their construction, which is a violation.

THE ANDAMAN AND NICOBAR ISLANDS

MUCH MORE THAN JUST A STRATEGIC OUTPOST

PANKAJ SEKHSARIA

Pankaj Sekhsaria is a member of the environmental action group, Kalpavriksh. He has worked in the A&N islands for over two decades and authored four books on issues there. These include Islands in Flux – The Andaman and Nicobar Story (HarperCollins India, 2017) and his debut novel The Last Wave (HarperCollins India, 2014).

In early July, earlier this year, I was at a friend's house in Hyderabad, participating silently in a meandering discussion typical when friends and family members come together for the evening. The discussion went from the current status of Telangana and Andhra politics, to the impact of demonetisation, to the sorry state of traffic in Hyderabad, to the militant issue in Kashmir.

And when I was introduced as someone who has worked extensively in the Andamans, associations that I have never thought possible were made instantly.

"I think they should all be picked up and sent to one of the Andaman Islands" an army officer in the group immediately connected one part of the discussion (and the country) to another. "It is a very simple solution," he continued, "and I don't know why we have not thought of it. All these militants in Kashmir, they should be rounded up and sent to the islands. It's very humid there, no?" he looked at me for confirmation. "They won't be able to survive there. It's an easy solution."

Today's public narrative abounds in such knee-jerk, nationalistic, quick-fix solutions to every problem we have. To say that I was astonished at the army man's proposition would be a gross understatement, but what it made me really wonder about is the statement that is the title of this piece. **What really are the A&N Islands and what do people think they are?** The same question can indeed be asked about Kashmir or any other place in the country for that matter. I ask about the Andaman and Nicobar because I've worked there for more than two decades and can claim some sense of the contours and history of the islands and the direction they are currently taking.

And the answer in my opinion in a short and straight forward one. The islands remain on the fringes of the national consciousness and are considered relevant only as adjuncts to a nation whose current ambition is nothing short of global, economic and military super power status.

Contemporary development planning and projects in the islands are afflicted by what I have referred to elsewhere as the big project mania; these are, at the same time, **monumental tributes to both our ignorance about the islands and the arrogance that we treat them with.** The army officer's statements and thoughts are particularly relevant because the narrative about and around the islands is increasingly, often exclusively, centered on their 'military and strategic' importance.

AN OVERBEARING STRATEGIC VISION

That the islands have always occupied an important place in the Indian imagination as a security and strategic outpost is well known. There have been a number of statements, proposals and projects in recent years that attest to this reality (see box for a quick listing from publicly available sources). The sentiment has been expressed repeatedly over the years and its logic was evident in the comments made in 2012 by the then Chief of Naval Staff, Admiral Nirmal Verma. Speaking on the occasion of the commissioning of INS Baaz on Great Nicobar Island, Verma made the point rather unequivocally:

"The islands of the Andaman and Nicobar group have always occupied the consciousness of the security and defence community of our nation. The geographic disposition of the archipelago, separated as it is by more than 650 nautical miles from our mainland, offers a vital geo-strategic advantage to India. Not only do they provide the nation with a commanding presence in the Bay of Bengal, the islands also serve as our window into East and South East Asia. India's Look East policy has certainly benefited due to the proximity of this archipelago to many ASEAN states. Apart from geography, the economic potential of the islands is also remarkable, being endowed with a vast Exclusive Economic Zone accounting for almost 30% of India's entire EEZ. They also sit astride some of the busiest shipping lanes of the Indian Ocean, most carrying strategic cargo for the East Asian economies."

It is also not a coincidence that the position of the top administrative officer-in-charge of the islands - the Lt. Governor (LG) - has been occupied by a retired defence officer for more than a decade now – Lt. General MM Lakhera for about a year in 2006; Lt. General Bhopinder Singh between 2006 and 2013 and then Lt. General AK Singh from 2013 to 2016. A little known BJP politician from Delhi, Prof Jagdish Mukhi, was appointed LG in 2016 but replaced recently, in October 2017 by another defence officer. This is none other than the former chief of the Indian Navy, Admiral (Retd) D K Joshi. Significantly, he is not only the first naval officer to be given charge of the islands, he has also served Commander-in-chief (CINCAN) India's only Integrated Command that is head-quartered in Port Blair.

The discussion around the appointment in prominent sections of the media has been illustrative. Writing in the www.swarajyamag.com, Keertivardhan Joshi framed Joshi's appointment exclusively in militaristic, geo-political and strategic contexts. The "appointment of Joshi", he noted, "is indeed a strategic move made keeping in mind India's maritime interest in its eastern waters (...) There are also speculations that the decision was part of the target given to the Navy to achieve its dominance in the Indian Ocean by 2020. (...) Admiral Joshi", the article continues, "now has the perfect platform to expedite India's dominance over the region and the right combination of skills to achieve it."

It is almost as if the LG is a defence and not a civilian appointment! There is not a single mention of the social and historical context of the islands, of the indigenous communities that have been living here for thousands of years, of the unique biodiversity of the islands, of the rich marine life of the surrounding oceans or of their extremely tectonic volatility and vulnerability.

The LG, in fact, would have little to do in decisions related to defence and strategic matters and is responsible for the overall civic and administrative issues that keep the place running. A narrative, then, that is completely devoid of anything else but the strategic is not only seriously incomplete, it is deeply problematic. While one may not be able to deny the importance of the strategic, it can and should only be one amongst the many strands that make up a place, its people and its identity.

Some recent military related developments in the A&N islands: 1st successful water to land test of Brahmos missile with a target located on a small island in the Nicobars

2009: Defence seminar in Port Blair; former President APJ Abdul Kalam's articulates a vision that includes, among others. a 250 MW nuclear power station and a nuclear submarine based fleetin the islands 2010: New Coast Guard station commissioned at Hut Bay, Little Andaman Island

2012: Commissioning of INS Baaz at Campbell Bay, Great Nicobar Island, as the first naval air station in the Nicobar Islands.

In principle approval for missile testing range on Tillangchang Island, Nicobars

2014: Clearance to the Coast Guard Radar project on Narcondum Island

2017: Clearance to missile testing and tracking site on Rutland Island

2017: Permission granted for expansion of Shibpur air base, Diglipur, North Andaman Island and INSBaaz, Campbel Bay, Great Nicobar Island Successful test-firing of the advanced BrahMos Block III land attack cruise missile in the Andaman and Nicobar Islands

EXCERPTS FROM PANKAJ SEKHSARIA'S BOOK 'ISLANDS IN FLUX'.

How a statist vision of development has brought Andaman's tribals close to extinction

Visions of massive industrialisation have placed the local population on the brink.

The history of the Andaman and Nicobar Islands is today a conveniently comfortable one: of the British, Kalapani and the Cellular Jail, of World War I and the Japanese occupation, of Netaji Subhas Chandra Bose, Veer Savarkar, the first hoisting of the Indian national flag, and of a modern mini India where all communities and religions live in peace and harmony. But like all histories, this one too is incomplete.

This history says nothing of the past, the present and the future of those people and communities that originally belong to the islands. The people in question are the ancient tribal communities that live here in the Andaman Islands – the Great Andamanese, the Onge, the Jarawa and the Sentinelese. These are communities that have lived and flourished here for at least 40,000 years, but the end could well be round the corner.

Just 150 years ago, the population of these tribal communities was estimated to be at least 5,000. Today, however, while the total population of the Andaman and Nicobar Islands has risen to about 0.4 million, the population of these four communities put together is not more than a mere 500.

In the late 1960s, an official plan of the Government of India to "colonise" (and this was the term used) the Andaman and Nicobar Islands was firmly in place. **The forests were "wastelands" that needed to be tamed, settled and developed.** It did not matter that these forests were the home of myriad plants and animals that had evolved over eons. It did not matter that ancient tribal peoples were living here for centuries, neither that they were physically and spiritually sustained by these forests. The idea that forests could mean more than just the timber the trees provided had not even taken seed in the national consciousness.

In the 1960s and '70s, thousands of settlers from mainland India were brought in and settled here. The forests too were opened up for logging in the early 1970s as part of the "colonisation" plan. An Onge tribal reserve was created, but for more than a decade now this reserve has been violated for timber extraction.

In the early 1960s, the Onge were the sole inhabitants of Little Andaman. Today, for each Onge, there are at least 120 outsiders here, and this imbalance is rapidly increasing. What more needs to be said?