COASTAL ZONE WATCH

REPORT
Of
THE COASTAL ZONE WATCH PROGRAMME

EQUATIONS
Bangalore
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EQUATIONS
(Equitable Tourism Options)
198, IInd Cross, Church Road
New Thippanaundra
Bangalore 560 075

Telefax: + 91 - 80 - 528 2313
E-mail: coast@equitabletourism.org
Visit us at: http://www.equitabletourism.org

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Introduction

The key to understanding the present situation and dilemmas of peoples can be done only in the context of the socio-cultural and economic surroundings. The very understanding of these surroundings, and the scope of human activity today, is in the context of our interaction with the resources around us, and the way we use and abuse them. Economically, the entire world's process of production and profit making come down to use of these resources.

The resources that nature had provided was once considered abundant and ever lasting; but that was while the humans needs were limited and in harmony with nature. The present model of development however does not share this view. And in the mad race for resources not only is the nature harmed but also the community that still somehow have managed to live by such resources.

One such resource the modern development is competing to take control over is the coastal stretches. (and by that act also the resources on which the coastal communities survive, which include the marine resources also) The coastal ecology is not only one of the most dynamic ecologies, but also, its diversity allows for a wide range of uses. Because of this the coast is among the most threatened of resources in the present.

The impact of this diverse range of economic activities is also diverse. Hazardous industries, power projects, highways and tourism projects are some of the modern development activities that is being concentrated all along the coast. The impact of these developments is felt on the coast, and also the immediate sub-supportive systems like the estuaries,
wetlands, mangroves systems etc. All these effects are felt, not only by the environment, but changing resource utilisation patterns allow for the gradual, and sometimes even sudden and traumatic marginalisation of people, socially and economically.

It was while trying to understand these diversity and interplay of various players EQUATIONS graduated to the various coastal issues from our earlier interventions in coastal tourism. This also gave us the insights to the complexity of issues as well as the various players involved in the region, the limitations and sectarian approach to an integral eco-system.

This is further compounded by the fact that the debate on coastal issues is yet immature, though old in time, and the law and policy are yet in stages of confused evolution. Not only are the issues in themselves multi-dimensional, but the search for solutions are down varied paths.

However, the startling similarity exists across all of them, that it is social, economic, and basic human integrity of the traditional, and local populace that is compromised upon.

It was to gain a comprehensive understanding of these EQUATIONS took up the task of tackling multiple issues on the coast.

This entire project was supported by ICCO of Netherlands.
Coastal Zone Watch

Locating the Coastal Debate

The Changing Scenario on the Coast

The purpose and use of coasts and beaches is undergoing rapid changes. The common standing of coasts was rural and urban: fishing villages and urban settlements, fisheries activity and port-related commerce. They were distinct since these standings had their own role to play and were also the result of centuries of human-nature interaction. Depending on the economic activities of the hinterland, a port would have been essential, followed by a trade and commerce centre that contributed to the formation of concentration of settlements, which in the later periods, gave way to a full fledge urban city. The availability of fishery resources, the natural conveniences for easy access to the sea for capture of the same, and well-protected region that was free of immediate disturbances from nature, was the ideal fishing settlement.

This origin and natural evolution cannot be claimed to continue any longer in the coastal regions. The changing economic interest does not allow this natural process to continue, and instead, singular use of the coast for purposes of development, is the pattern now followed. Coasts are seen as bare stretches of land that could be converted for any activity, irrespective of whether such activity has any relevance to the resources in the sea or the ecology of the coast. Coasts today house developments that are more of non-fishing in nature, than fishing and its ancillary activities. The plight of coastal community is related to this.
The impacts

The availability of resources and conveniences that nature provided had made the human dependent on coasts and sea. The sea had been the provider of livelihood, and an integral part of the lifestyles of communities, and therefore the relationship was symbiotic, and not parasitical. A commitment and concern for nature had ensured the evolution of methods of resource use, which were not exploitative or destructive. Furthermore, centuries of dependency on the sea had helped develop immense and expansive knowledge systems about the character and behavior of the sea and coast. Activities which involved use of the sea or coast were based on this wealth of knowledge and experience, and utilisation was with heed to the possible consequences, with causing harm to nature.

Modern development on the other hand did not share this bond. In a way, this was not required too, since it is not the resources in the sea and coast that are integral to such developments. The humans behind these developments lack a sense of history of being on the coast, and therefore show no commitment, attachment or passion. Equipped with immense capital and 'scientific' backing, it is the sense of conquering that is predominant in these developments, with no care for nature.

The Affected

Both the ecosystems and the community that are dependent on this nature, are the losers in this model of development. The community does not have a role in these developments. As these developments are increasing, the livelihood of the community is at stake. Their living space is taken over by these modern developments for their infrastructure
related use. The sea, which was the provider, is being choked to death by the industries.

The sensitive nature suffers since it no longer has support from the community that once lived in harmony with it. The community that lived alongside nature and understood its psyche has no role in preventing hazardous developments from destroying nature. Nature does not have a community to support it, and prevent the use of nature as the dumping yard of all the poison that the modern industry produces. Both nature and the dependent community are at a loss since each are in no position to support each other.

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The Lost

Earlier it was the human-nature bond that was the law of the sea. Since harmony was the mode, this dependency-based law was natural and functioned efficiently. Later, as the coast and sea were identified for further developments, new modes were created. Even then the historical right of the community was accepted. Their living space enjoyed protection along with the space for their economic activities. Traditional, customary, easementary rights, etc were protected during the initial state of alien developments that came to the coastal region.

Having realised that the modern development does not have any bond with the environment, ill treatment of the same was bound to happen. Correspondingly, laws to protect and regulate use of the environment against modern development also came into being. But even this, in today's developmental context is felt to be inadequate. Instead of stringent measures in the law, and punishing the guilty, the latest laws are framed so as to side with the development requirements. They are more development friendly while lesser heed is provided to protect nature, and the people living in the region.
India is in the second phase of this modern development. The economic liberalisation introduced in the country is proving to be ruthless to the coastal ecology and community living alongside, with total disregard to the future.

This cannot be allowed in the interest of nature on the one hand, as well as the community, on the other, as also in the larger interest that coast and oceans have a much wider role to play in determining the overall environment that affects the whole globe. A rollback to the earlier systems cannot be argued for. At the same time the human-nature bond has to be resurrected, redefined, and new meaning attributed to it.
EQUATIONS ' Interventions on the Coast

The programme Coastal Zone Watch is the outcome of Equations' interventions in beach tourism along the coastal stretches of India. Initially beach tourism was limited largely to Goa and isolated pockets of the other three southern states, where we have our direct interventions namely, Tamil Nadu, Karnataka and Keralam.

The past couple of years have witnessed sudden growth in beach tourism all over the country. Instead of isolated destinations, which had natural features for development of beach tourism, the new thrust is to 'create' destinations. The overall shift in development paradigms of economic policies has contributed to this new wave in tourism development where tourism acquired status of an instrument for economic development. There was also the need to find unspoiled locations since the traditional destinations like Goa and Kovalam were becoming lesser and lesser attractive owing to the unplanned, unregulated tourism activities.

The new thrust also brought into focus the need for infrastructure development in tourism in the newfound locations. The new identified areas being rural areas, had very limited infrastructure such as roads, and other communication systems.

Together, the land requirement for new destinations as well as related infrastructure development, has become one of the major issues on the coastal regions of the country. But this is merely one of the many events happening along the coast.
The Coast: Multiple Stakes

The threats on the coast are not limited to tourism alone. In the wake of new economic policy of the country, all major developmental activities are planned along the coastal regions, whether it is the chemical industries, petrochemicals, power projects or aquaculture. There are also a number of ports and defense projects taking up the coastal area. Apart from the infrastructure need of these developments, they also contribute to the dense urbanisation among the surrounds of these projects. All these developments seem to be rushing to the coastal region, in search of vast areas of land. The availability of water and easy disposal of waste and effluent are other reasons for the mad rush for development along the coastal region.

There are a number of vital issues that need to be addressed in the wake of these developments. The coast being one of the most ecologically sensitive regions, what are the impacts of the new developments? The coastal region consists of estuaries, mangrove systems, backwaters and marshes, sand dunes and other coastal vegetation. Each of these has its own dynamics and dependency on the coast and the immediate oceanic regions.

It was considering these multiple threats to the coastal ecology, and also the coastal community, that Equations developed the Coastal Zone Watch programme. It was realised that only by expanding the vision to include a whole region, could interventions become effective.

Locating the Debate
The attention that forests, their flora and fauna, have received in the debate of modern development has contributed to a high degree of awareness. Whether it is in the realm of education, general awareness, or the protective and regulative laws, the past fifty years’ efforts by environmental groups had been very effective. But this observation cannot be extended to the oceans. Oceans, marine and coastal ecology, its sub-systems like beaches, estuaries, mangroves, wetlands and marshy areas and their inter-dependency has been neglected in this debate. This is evident even in the academic and educational systems. Environmental protection laws also do not address these issues.

It was only in the past ten years that, for the first time in the history of the country, a law was passed that addressed issues relating to the coastal ecology. The Coastal Zone Regulation (CRZ) notification, under the Environment Protection Act was notified in 1991, by the Ministry of Environment and Forests. When introduced, this notification was considered by the coastal states’ governments and industry, as yet another piece of law that need not be implemented. But the fate of this notification was not meant to be thus. With growing industrialisation along the coastal region, groups and organisations employed this as an effective tool to protect the sensitive coasts. This debate today has reached such proportions that every state government and the central ministry is finding it extremely inconvenient to implement their developmental projects. The numerous amendments diluting the spirit of the regulation is a product of resistance from the groups and community. This has reached such a state that even the MoEF is in two minds about this legislation. Issues arising out of this situation are:

- Understanding the dynamics of coastal ecology is still in the initial stage at administrative level,
- The impacts of modern development along the coast are complex
• and therefore the community is unable to grasp the gravity of the same,
• The CRZ displays a very limited understanding of the complexity of the coastal ecology, community uses and rights, and hazards arising out of modern development, since the notification has just ten years of history, and
• The CRZ is vulnerable since it is only a notification under the Parent Act of Environmental Protection Act (EPA) and is at the mercy of bureaucrats, enabling them to make amendments as and when new situations arise.

What is lacking in the overall debate on the coastal issues in the country is that it fails to understand the linkages and interconnection of various ongoing developments. As we have seen, the developments have diverse effects, and therefore, so do the impacts. The impact of a coastal highway is different from that of a beach tourism project. The impact of a port constructed exclusively for a petro-chemical industry is different from a conventional port. But these differences are not addressed today.

It was keeping in mind these features that the Coastal Zone Watch programme decided to take up case studies at different locations, which put together, shall bring forth the real contradictions. Such case studies would throw light on various aspects related to individual projects or issues, which in turn help would help understand the coastal situation in totality, providing insights to the strategies that are needed to emphasize the kind of debate and interventions that should take place.

Accordingly the programme has chosen issues that are live in the three coastal states where Equations is directly involved. The knowledge thus derived was also put to test at national level with scientists, lawyers,
planners, groups and community representatives. The possibility of further interventions was the central agenda while choosing the case studies.

Case studies

None of these studies are born of new knowledge and also do not necessarily arise from experiences of the coastal region alone. Studies all over the world have again and again emphasized the need for a relook at the environment and the human intervention in it. The nature-based awareness, and the need to protect, is equally powerful the world over.

In the Indian context, the take-over of the coast for modern development is only in the initial stages. There are still vast stretches of the coast which are, at present, unexploited, with large numbers of communities living in harmony with it. There is still scope for intervention to tackle the challenges thrown up by the process economic liberalisation and modern development.

In order to be effectively part of this debate that has been brought out in the wake of economic liberalisation and unprecedented use of coastal stretches for various developments, it is necessary to locate what are the major thrusts along the coast today. What kind of developments are occurring more frequently, what are the impacts of the same, what are the existing laws and regulations, how far these are maintained, all need to be identified.

Also important is the factor as to how the community perceive these changes and what reasoning they follow. This knowledge is required on first hand basis so that analysis and interventions are focused on ground
realities and contradictions rather than be based a hypothetical framework.

To facilitate such analysis, case studies were initiated based on:

- The knowledge about the general changes that has been introduced in a particular region,
- Knowledge about specific issues at a particular region, and
- Knowledge about the existing laws in relation to the area in the context of new developments.

The studies were not limited to coastal and marine ecology alone, but its corresponding supportive and sub-support systems were also considered as part of the overall study.

So as to arrive at a complete picture, it was also felt that all important factors be considered that would lead to analysis both at micro as well as macro level.

- Development at various geographical locations were considered,
- Types of development that have different impacts were considered, and
- In all these case studies, the human aspect, as well as the environment, is central.

The case studies follow various methods depending upon the issue, the kind of information required to be generated, and methods of dissemination. The case studies were grouped under the following heads:

- Monitoring
- Research and Resources
- Legal support and advocacy
Some of these case studies were followed by workshops and the findings are also published for wider circulation.
The Programme – Tasks Fulfilled

East Coast Road (ECR), Tamil Nadu
Case Study – Monitoring

The Premise: The construction of East Coast Road (ECR) from Chennai to Cuddalore a stretch of 180 kms. has witnessed massive changes in land use pattern and ownership, since the road was laid. This had been one of the primary contentions the East Coast Road Action Committee in which EQUATIONS is a member, had argued prior to the laying of the road. Other conditionalities were planting of avenue trees, banning all industrial and tourist constructions towards the seaward side of the road.

Findings: The stretch – Pulicat – Mammallapuram – Pondicherry that was monitored has brought in various kinds of development that should not have come as per the conditionalities under which the road was laid. Induced development that is characteristic of highways has happened. Tourism related constructions, industrial complexes and aquaculture farms dominate this area. There is coastal erosion in villages like Kurichikuppam of Pondicherry and in and around Mammallapuram tourist area. As part of monitoring the important areas and non-implementation of CRZ regulations were video documented.

Malabar Coast: A Contemporary Analysis, Keralam Workshop

The workshop was part of our networking with local groups on issues relating to coastal issues. Ever since the CRZ has become a heated debate, along with Malabar Coastal Institute for Training Research and Action (MICTRA) and The Dialogue, EQUATIONS has had series of
community training and workshops in the Malabar coastal region. The need for an overall debate on the coastal issues was felt during these interactions that matured into a seminar on November 1998.

The Premise: the Malabar Coast occupies 49.6% of the total length of the Northern Keralam Coast. With distinctive features that differentiate from the southern stretch, the coastal region was comparatively free of large industries, related pollution and tourism projects. Recently this stretch had been identified for industries, ports and industrial tourism projects. CRZ regulative measures for house construction has raised problems for the community in this thickly populated stretch.

Findings: There are around 29 major industries planned along with a power project and two minor ports. Bakel and Kannur tourism project are large scale in character involving number of villages in a single project. In all these cases land is becoming the prime issue. Some of the recommendations of the workshop were to stop all activities that involve displacement and use of coastal land. As fishery resources are becoming scarce mechanised fishing need controlled and also the state government should make arrangements for supply of fuel at a subsidised rate. The community that contributes in earning foreign exchange for the country felt that they were neglected when development is discussed and planned.

A dossier on Malabar Coast: A Contemporary Analysis was published on the occasion in Malayalam.

Tourism Development along ECR Phase I - Tamil Nadu
Case Study: Research Resources
The Premise: Along with other conditionalities the Tamil Nadu Government has agreed prior to construction of the ECR, one prominent was that there shall be a total ban of industrial and tourism related constructions towards the sea ward side of the road. This however has not been maintained. Instead the government has approached the Central Ministry to revoke these conditionalities. An expert committee has been set up by the central ministry to review the conditionalities as well as the developments along the road. EQUATIONS being an invitee to the hearing of the Expert Committee undertook to submit a report on the tourism related constructions along the ECR.

Findings: The seaward side of the road where the ban is applicable has been completely build up by various constructions along a stretch from Chennai to Cuddalore. Most of these are private guesthouses and time-shares apart from large resorts and amusement parks. There are educational institutions and temples, often the construction encroaching up to the High Tide Line. All these constructions cater to different segments in tourism market. Two aspects were visibly clear in the stretch: Constructions on seaward side of ECR are a flagrant defiance of the Directives of MoEF. The protection of coastal ecology, which is the prime motive behind the Coastal Regulation Zone (CRZ), is jeopardized in this stretch by anthropocentric development.
The research report with photographic documentation – ECR Phase I: A Preliminary Survey Report on Tourism Related Constructions - was submitted to the Expert Committee on ECR headed by Retired Justice Sri. Jaganathan.

**Issues on Community Turtle Conservation at Kolavippalam - Keralam Workshop**

**The Premise:** Local community youths of Kolavippalam village of Kannur district for the past ten years are involved in protecting sea turtle nesting grounds in their village. They also have a hatchery on the beach. This is purely a voluntary activity under the banner Theeram Prakruthi Samrakshana Samiti without any financial support. Their activity has come under threat through sand mining in the nearby estuary. There are plans to construct tourist resorts also on the near by beach. Sand mining is a prohibited activity under CRZ and there is also a state prohibitory order that bans sand mining. The workers threatened the youths questioning the sand mining. The workshop was in solidarity with the youths of Kolavippalam and also 31st December, the day of the workshop was the concluding day of International Year of Oceans, 1998.

**Findings:** Turtles arriving at the coast for laying of eggs is affected by fisheries harbours, large industrial and tourist complexes in the Malabar Coast. At Kolavippalam proper the sand mining in the estuary next to the hatchery is eroding the beach. Possibilities of legal intervention and initiation for support and solidarity from other groups and concerned departments were also felt.
Mamallapuram

Tourism development along the coastal stretches of Tamil Nadu is concentrated in Mamallapuram and Kaniyakumari. Both are of historical and cultural important places.
The premise: Mammallapuram is declared as Special Tourism Area for intensive tourism development. The result of such a move was a sudden rush of prospective resort and hotel chains to the region. But the area is protected under various regulations and commitments, which the Tamil Nadu government has undertaken. This has stalled the new projects and the government is desperately trying to influence the central government to exempt the region from these regulations.

Findings: The monitoring proved that these regulations have to be adhered to, to the letter. In fact, the monitoring establishes that further protection is required both in the context of environment and social aspects. The coast is under severe threat of erosion and even the Shore Temple, which is the centre of attraction, is erosion prone. Tourism related social crimes, benefits not reaching the local community, etc, are also evident here.

Kanjiyakumari

The premise: Kanniyakumari is one of the most renowned pilgrim centers of India. This is the meeting point of three mighty oceans and tip of the Indian sub continent. Pilgrimage is gradually giving way for mass tourism, resulting in more and more constructions in the region. The authorities are also shifting towards providing facilities for pleasure and leisure.

Findings: Irrespective of the regulations proposed in the CRZ, the government with its political influence is circumventing the regulations. The pilgrimage centre has all the characteristics of a cosmopolitan town today. The sky is obstructed with high rise buildings. The beach is erosion prone, and as construction along the near shore increases, the
sea is engulfing the community living and working place. In the midst of
the opulence of tourism the community continues to live in their limited
space, threatened by the advancing sea.

The findings and analysis are published under the title Coastal Tourism

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Karnataka Coast
Case Study - Monitoring

**The Premise:** 320 kms of coast is under rapid industrialisation. The
coast is divided into two regions, namely Uttar (North) Kannada and
Dakshin (South) Kannada. Industrialization of Dakshin Kannada stems
from the New Mangalore Port. Chemical Industries, Petrochemicals,
power projects etc are rapidly taking away the coastal stretch, as well as
polluting the ocean.

In Uttar Kannada the coast is broader with many historic, pilgrimage and
scenic spots. Beach tourism is mainly seen as the development option
here. The governments' declaration of the entire coastal stretch as
Special Tourism Area is attracting resort owners to the beach. Recently
the Sea Bird Naval project has already acquired vast areas of coastal
land displacing fishing community.

The monitoring was done keeping in mind the developments already in
progress, and also the ones proposed. A status report of the coast with
all its existing features, identifying non-compliance with the CRZ
regulation, were the themes of monitoring.
Findings: The Dakshin Kannada coast has reached development well beyond any permissible levels. The Mangalore coast bears the features of an industrial township rather than that of a coastal stretch. Pollution levels are high and it is affecting the fishery activities of the local fisherman. The government and the community are at war against these developments, occasionally violent. Vast stretches of agricultural land are being converted for such developments. The CRZ is not maintained and there are no monitoring mechanisms. The Uttar Kannada coast could be protected, as there are no major development activities in the region. The urbanisation process shall take place in Karwar as the Sea Bird project starts functioning. At present only the land acquisition has taken place. There are proposals for tourism projects at various beaches. In traditional pilgrim centres like Murdeshwar and Gokarna the CRZ violations are rampant.

The findings and analysis are published, under the title Monitoring the Karnataka Coast.

Keralam Coast
Case Study – Monitoring

The premise: The 50 km long coastline of the state has 41 rivers flowing into the Arabian sea, leaving on its course very rich back water systems, marshy lands and mangroves. The state has always complained that the regulatory measures proposed in the CRZ Notification were detrimental to its economic development. The state has also vehemently opposed the No Development Zone setback for rivers and other water bodies with tidal influence. The Central Ministry granted its request and a commission was set up to look into these issues. The commission has recommended that the set back for rivers etc be relaxed since the CRZ
was not sensitive to the unique features of the state and therefore restricted the poor local community from building houses.

The reality, however, is different. The relaxation was not for the benefit of the community but for industries and infrastructure creation, like road constructions. Disallowing constructions under the regulatory norms of the CRZ was not protecting the rivers, as it was giving rise to violations, as reclamation for industrial purposes was rampant.

**Findings**: Two water bodies – Kallayi Puzha and Parvati Puttan Ar were studied to prove this point. Kallayi Puzha is a natural river while Parvati Puttan Ar is a human-made water body connecting with larger canals and lakes with tidal influence.

**Kallayi Puzha**: The river is in a sorry state of affairs with urban pollution and waste dumping, and carcasses of dead animals floating all over the river. This river, historical for its timber trade, does not get any attention under the CRZ. The area that falls under the CRZ protection is filled with violations, since the banks are totally occupied by constructions. Moreover, with the connivance of the local authorities, wealthy merchants have reclaimed land from the riverbed itself for industrial and housing constructions and converted them into private properties.

**Parvati Puttan Ar**: this artificial canal, made for commerce nearly a century ago, is now the dump yard for municipal waste. There is no attention paid to the Ar, and negligence has give rise to encroachment and leveling off of the banks. The waterbodies connecting into the Ar, such as the Veli-Akkulam Lake, are being destroyed for tourism development.
The findings and analysis are published, under the title *Tidal Waterbodies: Abandoned children of the Coast*.

**Kannur Survey - Kerala**

**Case Study: Research and Resources**

**The Premise:** This coastal district has been identified for intensive tourism development. Tourism is to be located in three adjacent villages of which one is inland. The state propaganda for tourism has been that tourism shall bring development to the region. The purpose of the survey was to locate people's socio-economic conditions, their understanding of the CRZ regulations and their attitude towards tourism development.
Findings: The study has come out with findings that those villages, which are comparatively weaker economically, do not support tourism, as they feel it affects their livelihood. The more urbanised and affluent groups welcome tourism, and do not feel threatened by it. However, they also express the caveat that tourism sometimes occupies their infrastructural spaces and causes inconveniences. The study also shows that the poorer sections that have had no experiences with tourism believe that it will bring in the minimum infrastructure, such as roads and electricity, which they need. However, it is interesting to note their ideas of development, and their own role vis-a-vis tourism. These groups are of the opinion that tourism will be entirely under their control, and that they can ensure that only the forms of tourism which do not interfere with their lives will be allowed. They presume that they can restrict tourism, and allow it to only to bring in the infrastructure that they require. The survey also showed a total lack of knowledge of the CRZ Norms, and a need for sensitisation of the people on the same.

The survey was followed by a discussed with the local community and local body representatives in the one day seminar.

The findings and analysis are published in the compilation Illustrations: Case Studies on Development and the Coast.

Tourism, Community and the Coast at Kannur: Keralam Workshop

The Premise: The workshop at Meenkunnu Panchayat of Kannur District was the culmination of the survey conducted at Kannur. The need for keeping the community informed about the finding of the survey as well as to provide the state level and national level debates on tourism etc was felt while conducting the survey. The role of the local community and their elected representatives in decision-making
considering the local situation was also another factor that was felt emphasised in the workshop.

Findings: The community and their elected representatives felt that tourism benefits should reach the community. Tourism would bring in infrastructure development to the area, which could in turn be useful to the local community. Also the possibility of taking part in tourism activities that are locally manageable was also felt in the workshop. There were apprehensions of large-scale tourism development.

The report of the workshop is published along with the survey report.

Pitchavaram Mangroves Survey – Tamil Nadu
Case Study: Research Resources

The Premise: This is the largest mangrove region in the East Coast after the Sunderbans. The mangroves are threatened by urbanisation, tourism and other factors like pollution. There is also the threat of illegal cutting of the forest for fuel wood purpose, which however, could not be effectively documented. The community living around the area are mainly poor fisherfolk, isolated, and with bare minimum livelihood options. The purpose of the survey was to quantify the fuel requirement of the community indirectly without exposing them. Such findings with alternatives proposed could be presented to the concerned local authorities for assistance. This would reduce at least one factor in the destruction of the mangroves, and also enlist the support of the community against other factors of further destruction.

Findings: The socio-economic condition of the community does not allow them to spend money on fuel from the open market. The surroundings do not have much wood to support them. However, the community is open to the idea to change over to alternative forms of
fuel, provided the government provides such alternatives either free or at subsidised rates.

The finding of the study and analysis are published in the compilation Illustrations: Case Studies on Development and the Coast.

Varkala survey - Kerala
Case Study: Research Resources

The Premise: Varkala is the new emerging beach tourism centre of the state in the South, after Kovalam. Already both ecological and social impacts of tourism are felt here. The objective of the study was to assess the resource endowments of the locality, local participation in beach tourism, and evolve an overall plan for sustainable tourism development in the coastal area.

Findings: The potential for tourism development in the area cannot be disputed since it is one of the finest beaches in the state. The added quality is that Varkala is also associated with pilgrimage. The study proved that present tourism development is in tune with the
notion of mass tourism. There are already large hotel groups and foreign nationals involved in providing facilities. There are opportunities for informal sector of tourism services at Varkala. The study recommends a long-term association of the community with expertise in tourism, for their participation in tourism related activities. The study also points out that tourism could be only a supplementary activity for the community, and that their traditional occupation has to be retained.

Community and tourism at Bakel: Keralam

Workshop

The Premise: The Special Tourism Area (STA), Bakel had been in the news for the past ten years ever since the place was declared as an STA. The traditional fishing community and their issues have been the focus of debate in tourism development in Bakel. Tourism constructions along the immediate coast had been stalled with our intervention along with the community. The workshop was primarily to take stock of the community issues as tourism develops in the area.

Findings: The workshop clearly pointed out that their issues were neglected. Fishing is in real crisis as the catch is dwindling. The operational cost like fuel for the boats to operate has soared high. The government on the other hand had reduced the fuel quota to boat owners while increased the price. As regarding tourism the community leaders felt that the focus of the authorities is merely on the infrastructure development and least for issues that are specific to the community. Even roads those are being built, as part of the overall development of the region is to the regions that are of interest for tourism development.
The Premise: The rich backwater system in the state is being converted for tourism development, from its original use of fishing, shell mining etc. Urban development has already shrunk the backwaters of the state considerably. The mass tourism activities also are contributing to this. The backwater regions are also areas with rich mangrove forests and nesting grounds for migratory and other water birds. Human presence and tourism constructions are having a negative impact on them. Pollution from tourist boats is affecting the fish, and thereby the livelihood of the local population is threatened.

Findings: Mangrove systems are under grave threat along the backwater regions, throughout the state. In tourism centres like Kumarakom, which is the hub of backwater tourism, mangroves, as well as migratory birds are threatened. The happenings at backwater tourism centres like, Veli, Akkulam and Pathiramanal were observed as part of the study. Backwater tourism in the state is not planned taking into consideration the sensitivity of the region.

The finding of the study and analysis is published in the compilation Illustrations: Case Studies on Development and the Coast.

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**East Coast Road (ECR) – Tamil Nadu**

**Case Study: Legal Support & Advocacy**

The Premise: Presently the government is planning construction of the phase II of the East Coast Road. (ECR) The ECR, when completed, shall run the entire length of the East Coast from Calcutta to Kanniyakumari. The Tamil Nadu government was the first to build a
section of the road in the state. Segregated into three phases, the first phase has been completed from Chennai to Cudalore, a length of 160 Kms. The state is in the act constructing the remaining phases.

The phase I construction had contributed to large-scale cutting down of trees, blocking of water bodies and dislocating entire villages. Timely intervention by groups enabled minimisation of such impacts. In this context it was decided that, as part of the campaign to check and minimise the impacts, public hearings be conducted along the areas included in phase II of the project.

**Change in the mandate:** After consultation with our network partners, groups in Chennai and also with environmental groups from Bombay, it was decided that a status report of the phase I area and the impacts of construction of the road could be made. This would help the campaign at national level, and pressurise the state government to proceed with the project in a more sensitive manner. The public hearing was already part of the local campaign.

**Findings:** The highway, as predicted, had contributed nothing to the economic upliftment of the local community. Instead, vast stretches of the coastal land have been privatised, converting the land for tourism complexes, housing complexes and private institutions.

The road is accident-prone. There are fatal accidents every day, caused by speeding vehicles. Compensation to villagers has not been provided. The villagers also lose their cattle in these accidents. There are also plans to widen the road at many places, which will lead to further displacement. The government has not maintained the conditionalities agreed to prior to building of the road.
The Premise: Majali, a coastal village in Karwar district of Uttar Kannada has been at the centre of the tourism debate for the past couple of years. The Karnataka Industrial Development Board, along with the Taj Group of Hotels, proposed a five star tourism project in 231 acres of land. Land acquisition notices were served to the people. The fishing community on the coast as well as the Majali panchayat opposed this project. So far, resistance from the community and panchayat, with backing from groups has stalled the project.

Concluding that the opposition was against displacement, tourism entrepreneurs have shifted their attention to the nearby location, Tilmati, of Majali panchayat. Tilmati is a small, uninhabited forest patch. There is already one proposal submitted to the panchayat for locating a beach tourism project there. Consequently, the focus of the study was shifted to a mapping of the bio-diversity of the Tilmati area, and to analyse the possible repercussion of locating tourism projects in this area.

Findings: The Tilmati patch of coastal forest houses rich plant diversity. Most of the plants are medicinal in nature and also have ritualistic value. Fruit-bearing plants are in plenty, which also lead to the fact that the area should have a sizable distribution of fauna as well.

Tilmati has not been marked separately in the Coastal Zone Management Plan, (CZMP) but is part of Majali, which falls under CRZ III category. The study findings prove that Tilmati should be specifically noted in the CZMP as an ecologically sensitive area and notified as CRZ I so that it receive maximum protection.
The finding of the study and analysis is published in the compilation *Illustrations: Case Studies on Development and the Coast*.

**Integrating Coastal and Ocean Space: A Task Oriented National Meet (ICOSM)**

**National Interventions: Legal Support and Advocacy**

**The premise:** While the discussions on coastal issues are felt on the ground at coastal state levels, the decisions are essentially made at the central level. Two agencies, especially, have the final word in any discussions on the coast, the CRZ and future developments. At the central level the Ministry of Environment and Forests is the nodal agency in determining any rules, regulations or law relating to the environment of the country. It is by this agency the CRZ notification was promulgated. The MoEF also has powers to amend the CRZ notification.

The MoEF as the parent body had constituted National Coastal Zone Management Authority (NCZMA) to look specifically into matters dealing with the coasts. The NCZMA has its counterparts in the coastal states. It is by these bodies, equipped with the Coastal Zone Management Plans of individual states, that the development, protection, changes and any other matters relating to the coast are organised.

For an effective intervention, and also to highlight issues from the perspective of the coastal environment and the community, it was felt necessary that a national level gathering be made possible, with involvement from concerned departments, agencies and coastal groups.
The National workshop titled Integrating Coastal and Ocean Space: A Task Oriented National Meet (ICOSM) was such an attempt.

The meet had representation from the MoEF, Marine Scientists, lawyers involved in CRZ related legal issues, groups from the coast involved in community and environmental issues, and bureaucrats.

The meet received financial assistance from the MoEF and National Institute of Oceanography and was in collaboration with Indian Maritime foundation, Pune and National Law School of India University, Bangalore.

As organisers, two papers were prepared by EQUATIONS: short-term and long-term policies for integrated coastal and ocean zone management.

Findings: The meeting evolved a clear consensus as to the need for understanding the coast in relation to its interface with the ocean. However, it was felt that the current focus, on the landward aspects of the coast should continue to receive much attention and impetus. The meeting also brought out clear dissatisfaction with the functioning of the Coastal Zone Management Authorities. Also, the meeting established the fact that the issues relating to the coast were different in each situation and varied from state to state. While, certain fundamentals, such as need for protection of environment, and communities could not be overlooked, each situation needed to be addressed individually and specifically.

Strategy Meet on National Coastal Zone Management Authority
National Interventions: Legal Support and Advocacy
The Coastal Zone Management Authority (CZMA) is the central agency evolved to take stock of the implementation of the CRZ and also scrutinize the new development along the coastal stretches. The authority consisting mainly of the top bureaucrats of the country also has NGO representation. However, the authority is under severe pressure from the coastal state governments to accommodate their developmental needs along the coast. This pressure is resulting in dilution of the CRZ by way of amendments. The strategy meeting was to look into ways and means for intervention at both the State and Central Management Authorities.

The Strategy Meet was national in character, with representation from Karnataka, Tamil Nadu, Kerala, Goa and Maharashtra. It also had representation from Greenpeace International.

The Strategy Meet came out with the following strategies for interventions:

- Preparation of various documents, focussing on issues of people’s rights, public hearings, and CRZ violations, in the context of each State,
- Accurate Mapping of resources in each State, along the Coast, in order to facilitate informed interventions,
- Increased interaction with CZMAs, and the MoEF, in order to sensitise them to the issues along the coast, as well as place pressures for change, and
- Increased interaction and networking among groups working on coastal issues, to allow for effective interventions on coastal issues.
Pressure of the new economic order, inadequate laws, lack of will to implement even the available laws, disregard to protection of natural resources, negative propaganda and claims are the features of the coastal debate today. The state's understanding of development has totally superceded the need to protect the coastal ecology.

Complexity of development on the one hand, increase in numbers and the volume of land requirements on the other, are the challenges groups and communities have to face in this debate. These challenges, together with the apathy of concerned authorities are the concern of coastal communities today.

Being a research and advocacy organisation, EQUATIONS needs tackle these challenges in a broader manner. The case studies, and interaction with experts of various disciplines, have helped locate the future of Equations' interventions in the coastal region. While the community and local groups need support on individual projects, our strength is much more effective when applied at national and policy level discussions. Such an intervention should help formulate policies, which take into consideration the impacts of present day development, coastal ecology and community rights at the macro level.

**Contribution of ICCO to the Debate**

It was while looking at these larger canvasses for the coastal regions, we realised that EQUATIONS' resources were not sufficient enough to accommodate such large a prospect. While at the same time the need to take stock of the situation as envisaged by us was pressing. The Coastal Zone Notification on which many of these issues depended was also under pressure from various quarters.
These realities forced us to seek for support from an external agency as a co-funder to the proposal EQUATIONS had prepared. Our search took us to ICCO, who after scrutiny of the proposal, accepted to be partner in this venture. ICCO informed us that the support they are extending would actually be the seed money to get start the project and therefore a one time support.

There was also the need to readjust the periodicity of the proposal according to ICCO requirement. The financial year of EQUATIONS is April to March where as the support ICCO has extended would fall from October to September. By the time the required formalities were completed and the fund reached half the financial year had elapsed. But we were still confident of completion of the project within the stipulated time.

However this could not be so. Apart from the lobbying part of the overall activity the rest of the tasks were issue specific based on ground reality. The way our tasks were programmed was based on logic that monitoring, survey or research would be the initial activity of the issues we had identified. This would be followed by the workshops and the concluding aspect would be publishing of the findings and recommendations of workshop or the community concerned. One factor that crippled us in execution of the project in time was the unprecedented rains that continued well past the regular monsoons, which is June to August. This has delayed the completion of the project period in September last and forced us to seek extension.

Of all the tasks we have committed, two tasks were modified without change in content identified. These modifications were made after consultation with experts and local groups, taking into consideration the fresh realities that has emerged.
One such task was under the head Survey Majali about the proposed tourism development in this coastal village. Our interventions and interaction with the local community and local elected body representatives had effectively stalled this project by the time we wanted to do the survey. But fresh projects were proposed to the next village, Tilmati in Majali panchayat itself. After consultation with the local community leaders, we extended the survey to Tilmati. (See Report; Majali Survey).

Another such activity was public hearing on East Coast Road (ECR). Our intention was to conduct public hearings along the phase II of the ECR. An expert committee meeting of groups from Chennai, Pondicherry, and Bangalore along with the eminent environmentalist from Bombay, Mr. Bittu Sahgal had met on this behalf. The meeting felt that to highlight problems on the Phase I would be an effective way to forewarn the authorities as well as get support from concerned people from all over India. Under such an understanding the public hearing was modified as a fact finding.

Sections of activities identified in two tasks could not take place in the overall programme committed by us. One is the workshop planned after the survey we have conducted on the Pitchavaram Mangroves. The survey was conducted in collaboration with Chidambaram University and CREED, a local NGO. Owing to the busy schedule of the university vice chancellor and other authorities the workshop could not take place.

A workshop on the ecological impact of barge mounted power projects was also part of the task we had identified for Karnataka. Though we have completed the monitoring of the entire coast of the state and were ready for the workshop, this did not happen. During the initial stage rains
had been a major obstacle. By the time the rains were over and the monitoring complete, the issue of electric power generation had become too sensitive for a public debate. The withdrawal and reinstallation of the power giant Cogentrix was a major political issue in the state. Court cases had already been initiated on barge mounted power projects. We felt that it would be better to postpone the workshop for more appropriate time.

Apart from these two, all tasks identified and committed had been complete. While reviewing the coastal situation in the light of the coastal zone watch programme, we feel that our intervention had been in apt times. The tasks we have undertaken had realised us the need for more effective and progressive laws along the coasts. In the wake of the changing socio-economic situations, the marginalisation of the coastal communities in decision making is alarmingly increasing. As we have also realised the developments are indeed complex and it would be quite unjust to expect the coastal communities and even regional groups to react to the changes, effectively.

Interventions along the coast need to be more informed and political in nature. The complexity of the project need investigated and converted into to simpler terms for local community and groups for effective intervention. The very quantum of projects along coastal region asks for constant vigil and struggles by the community, which could affect their livelihood activities considerably. The need for lobbying with concerned state and central departments, scientists and lawyers, experts on social science etc are felt more and more, in today's context.

All these point to the need for fresh debates on the rights and responsibilities of various players on the coastal stretches of India. While the community would be the primary focus, along with the coastal
environment, the impacts of present development are much larger and universal in nature.

We feel that the timely support ICCO had provided had been of great value to these understanding and would act as seed money, in a real sense so as to carry on this journey further.
Annexure One

East Coast Road: A Journey down the Road of Peril.

Introduction

The causal link between eco-systems and the interdependence of biodiversity is what makes each and every aspect of the environment fragile and valuable, as well as the intrinsic value of each such aspect. Ironically, development is as much an interlinked process as the environment. Whereas a singular project, be it industry or infrastructure, is damaging to the environment, the induced development that follows it is many times more damaging than the project itself. Perhaps one bio-system that reflects these linkages most clearly, is the Coast. And the paradox of development is equally clearly reflected with respect to the East Coast Road.

The East Coast Road (ECR) presents a plethora of problems and paradoxes, which reflect almost every lacuna in the law relating to the administration, management and protection of the coastal area. Between Chennai and Muthukadu, there is practically not an acre of land available in this entire stretch save for tiny pockets of fisher community settlements. Housing and tourism projects, time shares and private guest houses, and prawn farms occupy these areas, and constructions extending upto less than 50 metres of the high tide line, are alarmingly common. Vacant plots with boundary walls await construction any time. It is clear that this change in land use pattern, with the obvious displacement of fisher communities and other traditional peoples, and the massive development, has taken place all due to the construction of the road.
The problem of infrastructural development, in the environmental context, is not only the load placed on the environment by a particular industrial or infrastructural project, but the smaller, though more predominant overall development that it gives rise to. Following the construction of the ECR, the land in many areas has now become more accessible, leading to a spurt of activity in those areas. This is a spiraling effect where basic development leads to more concentrated and intensive development. In the case of roads such as the ECR, such development takes place mainly along both sides of the road itself, and so the phenomenon is known as induced ribbon development.

**ECR: in Defiance of the Laws of the Nation**

Ever since the highway was proposed the apparent dangers involved in construction of a highway along the fragile coastal stretches had been raised. Thousands of matured trees were cut and number of villages uprooted in the initial stage of construction itself. Both the media and environmental groups had repeatedly pointed out these happenings. These were in blatant violation of the conditionalities of the Environmental Appraisal Committee of the Ministry of Environment and Forests ((MoEF) that was agreed upon by the state government. These were the conditions the Tamil Nadu Government agreed to:

- That the tarred portion of the road be reduced from 10 m to 7.5 m;
- That matured trees should not be felled while widening the road;
- There shall be no further displacement of persons for the purpose of road construction, those already displaced should be adequately compensated and rehabilitated;
- For the purpose of realignment there shall not be any acquisition of home-stead land;
- Avenue plantation shall be done all through the project;
Adequate drainage should be provided for rain water;
There shall be no industrial or hotel construction activities in future on the seaward side of the road;
In the phase II of the project (Cuddalore–Kanyakumari) EIA report for all alternatives shall be submitted to the Ministry. Land acquisition for phase II should be done in consultation with subgroup of the EAC committee; and
The clearance is deemed to be operative after issue of a Government order from the Government of Tamil Nadu accepting the above conditions.

These conditions of 1994 were violated again which forced the MoEF suspend the clearance in 1995 which the Tamil Nadu Government ignored till a court order in 1996. The MoEF once again gave clearance with more conditions while adhering to the earlier. One of the significant among these were that the project is cleared as an “Other District Road” (ODR) and not as a “National Highway”. The intention of the Ministry was to discourage building of a highway with huge embankments, massive culverts, and carriageways with high load bearing capacity, which would have grave environmental impacts.

Of all these conditions the Tamil Nadu government saw the condition no.7, “there shall be no industrial or hotel construction activities in future on the seaward side of the road”, as the most detrimental to their interest. There were tourism projects worth 800 crores awaiting clearance along this stretch, and by 1997 the government was looking for ways by which it could bypass these conditions. Political interventions with the Central Ministry was the only way out of this since the government had agreed to these conditions in the High Court of Chennai. An Expert Committee was again set up, headed by a retired Supreme Court Judge, Mr. S. Natarajan to look into the ‘ecological and
geomorphologic sensitivity of the coastal stretch'. Modifications were bound to happen considering the political clout of the state government and also the influence of the tourism industry.

**ECR and the Coastal Zone Regulation**

The constructions on the seaward side of the ECR are a flagrant violation of the CRZ Notification, which requires that, in areas classified as CRZ II, no construction can take place on the seaward side of an existing or proposed road. In most situations, the violations are within the No Development Zone itself, as they are a mere 50 metres away from the High Tide Line, whereas no constructions may take place in the NDZ, which extends up to 200 metres.

Above all, the very notion of protection of Coastal Ecology has been forgotten, and the entire spirit of the Coastal Regulation Zone notifications is lost. It is clear that the development has taken on anthropocentric leanings, and the entire concept of Environment for Environment's sake, as for the larger relations it shares with humanity as a whole, is lost. This total rift from any environmental roots or philosophy is clear not only in specific situations as the ECR, but in almost every aspect of the CRZ notification and its current use and abuse.

In the meantime the road construction continued with minor and major violations. The phase I was completed subsequently and now the discussions are on for clearance to the phase II.

**The Fact Finding**

While many impacts and dangers were predicted, in the case of the ECR, these dangers have come alive with startling clarity. However, the
concerns on the ECR have gone beyond the point of law and environment alone, and have now become a saga of the sufferings of peoples.

The fact-finding team chose areas those had faced problems ever since the road became operational in an attempt to record the status of the ECR, as can be observed, as well as to record the opinions of the various communities as other persons along the ECR. The records begin from Manamai, which is 63 kilometers from Chennai.

(The area from Chennai up to Mammallapuram we have recorded during December 1998. The main focus was the tourism-related constructions in this stretch. The purpose was to submit the status to the Expert Committee constituted by the MoEF, head by retired Supreme Court Judge Mr. S Natarajan)

**ECR, 63 kms: MANAMAI**

This village is situated at the estuary of the Buckingham Canal. A new prawn farm has begun its operations here, at Survey No.4 3/1A, which extends to one hectare. When the proposal for the farm was put forth, in 1996, the local people had complained against the use of scarce fresh water by the farm. The owner, one Balasundaram s/o Duraisamy Avadi, Chennai, provided water through tankers to the villagers for about one month. This was subsequently stopped, leading to further opposition by the villagers. However, when opposition increased, Balasundaram managed to find two local persons, whom he made partners. Now one Sundaram is managing the farm. The farm is run under this arrangement today. Construction works are on for two more farms. The adjacent lands are rich paddy fields.
The community had complained to the collector, sub-collector, Tahasildar, and the sub-inspector of Mammallapuram. The Tahasildar has issued notice to the owners, but so far nothing has happened. The people are organised under Mr. MP Veerasamy and have organised various protests under him, and he has been charged with around half a dozen criminal cases. The community also had a hunger strike at Thirukkalukundram town, in front of the Tahasildar office, a year ago, on 28.12.98.

**ECR.79 kms:**

The plantation of trees for the creation of "Avenues" has been done at quite a distance from the road. Assuming that the trees would grow to their full size in twenty years, they would in no way provide shade onto the road.

**Mammallapuram to Puthupattinam**

This stretch is the Kalpakkom Atomic Power plant area. All constructions are prohibited around a 1.6 km radius of the plant, which is termed as 'sterilized zone'. Beyond this another five kilometer zone is termed as 'controlled zone' so that all industrial activities leading to undue growth of population is restricted. Any application for new constructions, and even modifications, have to go through a three member screening committee and obtain a No Objection Certificate (NOC) from the committee. The area has no development except that required for the plant. Because of all these factors there are no major constructions on this stretch.
Palar River

One of the major uses of the ECR is to carry sand mined from the almost dead Palar River. Dozens of lorries run straight into the riverbed where the workers fill it with sand mined from the riverbed. The team witnessed dozens of lorries parked along the riverbed, and sand being filled into them.

ECR, 79 kms: Koovathur Village

This village was served eviction notice in the initial stages of the construction of the ECR. The people in the village are of the scheduled castes. The committee had conducted awareness programmes for the villagers; on compensation, Public Interest Litigation, etc. The road was built bypassing the village without displacing the community. However, the villagers are now informed that the roads are being widened and straightened, and would now cut across the village, displacing them. This is in addition to the problems already faced by the villagers, as the number of households has increased beyond the capacity of the land area. They are unable to resettle elsewhere in the vicinity, as they do not hold any land of their own. They had made a request to the authorities for some land, and accordingly, some land was identified. However, the current owner of the land is refusing to part with it. The prices of land in the area have dramatically increased since the construction of the ECR, and neither can the villagers afford on their own, at such high rates, nor is the owner willing to sell to the government for a lesser price. At the time of our visit, a meeting of the villagers was in progress, on this issue.

The villagers are facing an acute shortage of water. The handpump used to draw ground water is malfunctioning, and the villagers were hard
pressed to repair it, contributing Rs.5/- each. However, this is of no use, since the groundwater has been contaminated by saline intrusion.

There have been at least seven deaths, due to accidents in the village, since ECR was build. Sri. Vajravel Chettiyar, a local leader of Tamil Manila Congress party was the last to die, nine months ago. This area is a common market pace for the local villages, and is crowded in the evenings. The point-to point-buses rush past dangerously on the ECR, threatening the villagers, especially school children.

The youth of the village have said that since they are poor they may not be able to withstand the various pressures, especially that for land. They feel that the rich and the powerful file cases or influence the politicians and divert the road according to their convenience. There is no ‘purampokku’ (res nullius) land available, for occupation by the community, and they are at the mercy of the government for land. This could mean that they might have to move out of the area itself, in order to expand their settlement. If the fresh eviction, for broadening the road, takes place the situation will be worse.

**ECR, 91 kms: Seekinakuppam**

This village, and their problems, are typical case studies of the problems that were predicted, with the ECR. The total negligence, and indifference, of the authorities is evident here from the number of deaths due to accidents, in this village and its surrounds. Fourteen people have so far died in this village alone, since the road became operational. Accidents were unknown in this village before the ‘killer road’ as one of the villagers put it, came into their life.
Says A. Gopu S/o. Arul: "the market, drinking water and the school is on the other side of the road from the village". This means that every time one of the community members has to access these basic facilities, they must place their lives at risk. The Seekinakuppam Middle School has children from eight nearby villages. The mothers are at a loss as to what can be done, for the safety of their children. They can only sit and pray, each day, that their young ones come back safely. There have been instances when 5 people were killed in a single day. Similarly, seven cattle were killed in another incident.

Says Ezhimalai S/o. Sriram: "The vehicle owners say that we can claim insurance compensation. But so far there is not a single incident where any of the dependants have received compensation." The villagers have filed cases on each of the accident deaths, through a lawyer. However, they cannot continue in the process for too long, as says Pazhani S/o. Narayanan: "Out of the meagre income we earn, a major portion goes to pay the lawyer and bribe the police, hoping that something will turn out. So far nothing has happened". There have been three instances when vehicles entered the village, unable to control their speed on this zigzag portion of the road.

The threat of displacement, because of the widening the road, has grasped this village also. There is no land available in the village, and the villagers are unwilling to move away. "If the road comes through the village we shall oppose it with all our might", the villagers said, of one voice.

**Marakkanam Stretch**

As the road approaches the area, one observes the numerous constructions, completed and in various stages of progress, towards the
side of the city. The land price in the area has increased twenty to thirty times, according to the local people.

Ranganathapuram

"When we come to the tea shop our family is anxious till we return," said Iyes Khan of Ranganathapuram village, the fright of death still in his eyes. This was at the spot of an accident, barely seconds after it had occurred. The researchers were witness to this gruesome accident. Iyes carries red mud for the fields, in single-bullock-driven cart. At nine-thirty in the morning of the eleventh of December, he was, as usual, carrying the mud. He had gotten down from the cart and was maneuvering the bullock to get down from the road to the field, when the Pondicherry bound Maruti car hit the cart from behind, throwing him off the road. The bullock was killed on the spot. The nearby shopkeepers said that the car was running at a very high speed. They also say that the driver was probably sleepy, since they clearly saw the women in the car, waving and shouting, in vain, at their driver, to avoid the collision.
The villagers pulled everybody out of the car and helped them and their belongings into another vehicle. They said that they were not planning to lodge any complaints, as the car owners have promised them that they would come back and do the needful towards compensation. "The bullock together with the cart will cost me sixteen thousand rupees. I do not know how much they will give me", says Iyes Khan, "thank god for sparing my life." Like many others, that is all these villagers can be thankful for.

Pondicherry-Kadalur

From Pondicherry to Kadalur, the entire stretch along the ECR is urbanised. The ECR looks and is like any other road-narrow, crowded, and congested. There are absolutely no avenue trees in this stretch, of around twenty kilometres. The traffic is not very fast since the vehicles have to maneuver through the crowded areas. There are number of factories all along the road.

ECR, 161 kms: Thavalakkum Police station:

The local police was consulted, in order to see what they had to say about accidents and deaths on the ECR. Sub-inspector Thiru. Arumugam has taken over his post only two months ago. He had a lot to say about the attitude of the public as well as that of the system. He felt that one reason for the increase in the number of accidents is the increase in number of vehicles. He also felt, that it was part of the pattern of driving, that once the vehicles cross the urban limits, they speed up. This is because the driver feels more relaxed, since he or she no longer has to maneuver with the mechanisms of the vehicle, like
changing gears, etc. The attitudes of the younger generation, who have access to all kinds of vehicles, is also responsible. In general, people are not concerned about road rules, and traffic sense. The gravity of the problem is such, as demonstrated on the ECR, that road rules may now have to form part of the school curriculum! Those who sell vehicles must also insist on a licence as a prerequisite for the sale of a vehicle. The mere insistence of a law-enforcement agency, like the police, is not enough to counter the number of reckless, and unqualified, drivers. On the contrary, the dislike and contempt of the drivers for the police further spurs their reckless attitude.

The problem is not restricted to private vehicles alone. The much lauded point-to-point buses also overspeed dangerously, and are also in no way useful to the local populace, since they cannot be stopped at the settlements.

**Conclusion**

These interactions and observation are only representative of the problems faced with the ECR. However, one can be sure that the story is not much different along its other stretches. It is also ironical, that where we talk of deaths and losses due to accidents, the winding road is replete with signs that say 'caution, go slow, steep curve ahead', and 'Speed limit twenty kms'. This defeats the basic rationale that was given for a superhighway of this kind, and is tantamount to sheer incompetence, if not *malafide*, on the part of the government. Despite the enormous amount borrowed from the Asian Development Bank (ADB) for this project, the government has not achieved its objectives (however questionable) of better communication and travel, which would then promote development. On the contrary, the road has only brought death and misery to the many communities. The rate of accidents also
places doubt on the very validity of the scientific studies conducted, as they have proven to be grossly wrong.

The government also went ahead with the road construction knowing very well that the highway cannot be operated in the long run, with its present situation of numerous many curves, L-turns, and U-turns. It has obviously been a question of strategy, in order to secure approval of the plan, that the road was made in a way that did not displace people, even though it was not suitable for its primary purpose of driving. The idea seems to be that once the road was operationalised, the displacement of persons, for the purpose of widening or expanding the road, would not pose much of a problem. This is nothing but a fraud on the people, who are already hard hit by this scheme.

As predicted, the ECR has turned out to be nothing but disaster for the thousands of communities living along its stretch. Groundwater salination, displacement, accidents, all were warned against, and formed the rationale of the opposition of many communities, and groups to the ECR. Nevertheless, the government went ahead, with rosy promises of development and betterment for the communities, and solemn assurances against all that they suffer today. The ECR has proved to be a very expensive lesson on borrowed money. But with new plans and proposals for the next stretch of the ECR, the question remains- have the authorities cared to learn?

Annexure Two

Bakel: The Coast and Coastal Communities

One Day Workshop, 3rd October, 1999

The workshop was jointly organised by EQUATIONS, The Dialogue, Kozhikode and Organisation of the Traditional Fishing Community, Bakel.

Three main issues were the focus of the workshop:

- Problems faced by the traditional fishing community;
- Educational status of the coastal community; and
- Tourism and the local community.

The workshop went to details of the changes that have occurred since Bakel and the surrounding villages were identified as a Special Tourism Area (STA). These details and our observations of the region are represented as separate section 'Innovations at Bakel: A report of the Progress of Tourism Development in the Bakel Special Tourism Area'.

The workshop discussed the problems faced by the community in fishing. The speakers pointed out that the main and major occupation of the village is still fishing and no amount of tourism is going to change their occupation. The living, and lifestyle of the people are in relation to the coast and the abundant fishery resource available in the region. The district has the distinction of having the maximum number of women directly involved in fishery activities.
The workshop noted that while tourism tops the agenda of the authorities concerned, the plight of the fishing community is overlooked. Mechanisation process in fishing had alienated the community from their traditional practices. But at the same time the basic support that is required for mechanised fishing is not taken care by the government. Recently the government had reduced the Kerosene oil quota for fishing activities. Regular quota of kerosene oil for out-board engines were 500 liters per month till recently. This was once cut down to 375 liters and then to a meager 175 liters per month. This is while the actual requirement would be 40 liters per day that would amount to 1200 liters per month. The government has also not issued new kerosene permit to fishermen, that would help them buy kerosene at subsidised price for the last three years, which meant that those acquired new engines are lying idle. No fisherman could profitably fish with kerosene purchased from open market. If this were the attitude of the government towards one of its prominent foreign exchange earner, marine products, how could this industry prosper in future? The representation of the community, at the workshop expressed their hopelessness of waiting at the government’s mercy, for it to look into their problems. Instead, the community leaders said, that the time has come for voicing their rights.

A study by the Malabar Coastal Institute for Research Training and Action (MCiTRA) was presented titled ‘Towards Educational Development of The Traditional Marine Fishing Community of Malabar Coast – Issues and Strategies’. Regarding the educational status of the community the workshop pointed out that the status was very low, compared to other sections of the society. This had been the situation for decades now. There are 13 fisheries schools, two Government Regional Technical High Schools and one Government Fisheries Vocational Higher Secondary School in Kasaragod District. These are meant to be for the fisher community children. The study pointed out that
the curriculum was not specially meant for the community and also the teachers were from the regular pool without specialisation, which was to understand the issues and problems of the community.

But what was emphasised in the workshop was that even the educated had no opportunities in employment sector. Being a backward area, the Bakel region had lesser access to information on employment opportunities. The workshop felt that the opening of information cells could be one way to solve this problem. The community could also pool in resources to initiate their own institutions, that are more modern, sensitive to community traditions and support the community in their attempt to achieve socio-economic well-being at par with the larger society.

Regarding tourism development in the region, the community voiced their anxiety about the development that has been taking place. The community leaders stated that anything detrimental to their living and occupation would not be acceptable to them. Bakel region is one of the richest in fishery resources. It is quite paradoxical that tourism projects are also being located in such regions. As long as tourism is not interfering in their life they are not opposing it. If tourism could bring in development to the region as it claims it would, that would be beneficial to the people. But there are instances where roads have been built not to the local people’s requirements but towards future tourism development projects.
Innovations at Bakel

A report of the progress of tourism development in the Bakel Special Tourism Area

There is no discussion about Tourism in Kerala, these days, which does not feature Bakel as an immediate and engrossing issue. The Bakel Project, which from the very beginning attracted a lot of attention because of its magnitude and much-publicised objectives, is progressing rapidly, according to the authorities. It has even been labeled as "the tourism centre of the next century" (Amitabh Kanth, Mathrubhoomi, 11 Sept. 1999), and is held out as a model for tourism development, for other locations and States in India, especially those along the lines of the Special Tourism Areas (STA) concept.

Bakel was the pioneer, in the execution of a new model of tourism planning, know as the Special Tourism Areas. The STAs were the result of a ministerial conference, where a resolution was passed, mooted the idea of creating areas for intensive tourism development. This included the accordance of special environmental clearances, subsidies on water and electricity rates, and the provision of infrastructure, all of which are also available to any industry seeking to establish itself in the Bakel Special Tourism Area. Consequently, the Bakel Project was outlined, a plan for tourism development was framed, and the project commenced in 1991. Now that half of the estimated duration of the plan is over, it would be appropriate, and necessary, to take a look at the progress of the huge plan, and the challenges faced by it.
The plan, supervised by an agency known as the Bakel Resort Development Corporation (BRDC), (formed under the declared methods of the STA resolution), is yet to conduct an Environmental Impact Assessment. Leave alone the Master plan; even the structural plan prepared by Mr.NM Salim, which was later found to be defective, is yet to be changed or replaced. Even the BRDC now admits that a master plan cannot be made easily, as it can be done only by a statutory agency. More than a year ago, one Mr.KT Ravindran from Delhi was assigned this duty of preparing a new masterplan, but as this task is not yet completed, BRDC is still using the earlier masterplan, making modifications as and when necessary. For this reason, the probable direction and progress of tourism development in Bekal is totally unpredictable.

BRDC has only a sub-office at Kappil, in Uduma panchayat. The head office is still at Thiruvananthapuram. This is causing unnecessary delays resulting in mediocre supervision and administration by the BRDC. Even though a request was made by the panchayat itself to shift the head office to the project site, no decision has been taken yet, on this issue. It is however, clear that for healthy and efficient interactions with the public, the head office should be at the plan area.

The main activities of BRDC in Ajanoor, Pallikara, Uduma and Chemmanadu panchayats include acquiring land for the project, finding areas with potential for tourism development, constructing roads with the panchayat's assistance, conducting public awareness programs to remove misconceptions about tourism from the common person's mind, controlling the activities of the Tanal facility centre (constructed near the Bakel fort) and the tourism information centre, gardening in the Pallikara...
beach and regulating the boat services in the Bakel River. Besides this, BRDC is trying to introduce some plans for water distribution and waste disposal.

**Land Acquisition and Use**

From the time of announcement of the Bakel Plan, the feature that attracted the most attention was the extent of land needed for the project. It was doubted whether the land, which was integral to the lives and lifestyles of the local people, could be acquired. Nevertheless, BRDC has been able to acquire about 190 acres, the land having a relatively low population. Initially, the estimated land requirement was 278 acres. Now it is felt that 232 acres will be sufficient. The land already acquired is mainly from Kulavayal, Chettukundu, Puthiyakudi/Kuthir, Kappil, Karnil/Uduma and Chembarika/Mani areas. Only about 16 families had to be evacuated. Other than some minor disputes about the quantum of compensation given, the families did not have much contention about their evacuation. The plan now, is to give out the land to big hotel groups, through government agencies. KTDC may start operating at “Chettukundu” area in Ajanoor. The above-mentioned land near Chitari River is separated from the surrounding areas by a wire fence. This had blocked the route to Chitharikkadavu, which the villagers have been using for generations, resulting in protests. Even though they have been allowed another route, the villagers complain that the new route is some 1½ kilometres longer than the older one, which is of tremendous consequence in the absence of motor vehicles and similar such transportation.

Though there is no considerable opposition from the residents of the plan area, against the takeover of land, another problem is now becoming prominent. The acquisition of land has resulted in the direct
marginalisation of agricultural labourers, who hold little or no land. When
the BRDC acquires an agricultural area, such as a tobacco field or
coconut grove, only the landowner is given compensation, and no
thought is given to the labourers who have been working there all their
lives. These labourers lose their livelihood, as in the wake of these
massive takeovers, there is no scope for them to find employment on
other such agricultural lands, nor are they provided with any alternative
means of employment. BRDC has not at all considered the issue of
rehabilitation, or provision of alternatives, to these displaced labourers.

The BRDC and infrastructure creation

This year, BRDC gave the four panchayats of Bekal STA a total amount
of Rs. 60 lakhs for the construction of roads. After receiving a priority list
of roads required, from the panchayats, BRDC selected the areas where
the construction of roads would be undertaken. After BRDC and the
panchayats jointly prepared the estimate for the same, the required
amount was handed over to the latter. Despite the BRDC’s claims, that
the construction work was done in such a fair, ‘democratic’ way, there
are complaints. Some panchayats accuse the BRDC of not permitting
the requested roads to be constructed. There are also allegations of
political manipulation. The following are the roads claimed to be
constructed: Kappil-Kadappuram road, Malankunnu-Nallani Road,
Kalikunnu Masjid Road, Bakel Masjid- Kadapurram Road, Kattadi
Junction-Railway Track Road, Peyyakara-Mallikanaadu Road and Ikbal
High School-Railway Track Road. Many of these roads were not newly
constructed by the BRDC, but old roads repaired and re-tarred or
broadened. Also, the Bakel Junction is being expanded as part of a plan
to expand major junctions. The Public Works Department is carrying out
the development work in Pallakunnu town. BRDC itself constructed the
Pallikara- Railway Station Road. Although BRDC has sought permission
for constructing a railway gate on Chettukundu Road, and remitted
the necessary amount, permission has not yet been granted by the
authorities.

The BRDC has given the necessary amount to the Uduma Panchayat,
for the construction of Kappil-Kozhikunnu Masjid road, despite which the
work has not started, as the panchayat has not been able to acquire the
necessary land.

People's Participation

Although the authorities constantly claim that tourism will not affect the
life of the common person in a harmful way, there are still doubts in the
minds of the people. BRDC is conducting public awareness programs, to
ensure popular support for the smooth progress of the Bakel Project.
They have already distributed a newsletter to collect local people's
opinions on various subjects, including the suggestion a name for the
Pallikara beach, where work is in progress, suggesting modifications in
plans, and suggesting eco-friendly methods, and also inquiring whether
the villagers are ready to be of assistance in the planting of trees. They
are planning to distribute such newsletters every month. The next issue
to be taken up is supposed to be related to locally made handicraft
products.

Nevertheless, one tends doubt whether all these are bonafide invitations
to the local people to participate in tourism development, or merely
gimmicks to create a false sense of public involvement, especially since
the basic decision that the Bekal area needs tourism has been taken
without giving a thought to the needs and opinions of the common
person. Some locals have already begun voicing this opinion.
BRDC itself is in charge of the Thanar Facility Centre and the 'Information Centre', constructed near the Bakel fort. Some cases have been filed against the construction of the Facility centre, which was done in violation of the CRZ notification. The panchayat is making allegations that the building, which has not yet been given a building number, has been allowed electricity connection through illegal methods. It is said that the connection was secured using the building number of a pumphouse, that used to function at the same spot, before the construction of the centre. Some months ago, a children's park was also constructed near the facility centre.

To improve the sales of the handicrafts department associated with the centre, BRDC is trying to include locally made handicraft products, particularly those from the tribal people of Panathur. Tourists who visit the fort take rest at the facility centre. It is surprising and also alarming, that the BRDC is trying to go on with activities at this centre, even though it is in violation of the CRZ law.

Gardening, at the Pallikara beach, is another activity that the BRDC runs directly. BRDC acquired this land, which earlier used to be tobacco and paddy fields. Even though the beach is in Pallikara panchayat, right behind the panchayat office, the Panchayat has not been informed of any activity that is going on there. The panchayat also has not tried to ascertain the exact income from the beach, although they know that they are receiving a lower share than what they used to get before the advent of the Plan. As part of the project, lamp posts and concrete railings have been constructed on the beach. It is said that two buildings, which were there on the beach before acquisition, are going to be remodeled to
make toilets and an information centre. This move has been prompted by the fact that the CRZ law prohibits new constructions on the beach.

In order to preserve the sand dunes on the beach, BRDC is trying to restrict the footways running from the coast to the sea. However, the dunes are vulnerable to sand slides even if people walk through paths right next to their bases. Also, with the high rate of sea erosion in the area, the concrete railings constructed within some 5 to 10 metres of coastal areas cannot be expected to have a lifespan of more than 5 years. In addition to this, the ecology conservation technique of planting dry land plants on the seashore is clearly illogical. BRDC is about to construct a road from Bakel Fort to the Beach and also a children’s park nearby. There is also a plan to fence off the Pallikara beach, now open to everyone, and collect an entrance fee. It is alarming that even local people will not be exempted from the payment of a fee, if they wish to enter the beach. The last straw would clearly be asking the local people to suggest a name for the wire fence, to ensure public involvement, though, given the current trend, this would not at all be a surprising move.

Since last year, boating services have been started, in the Bakel River. Private parties have been given contracts for the boats and also the jetties. Since it was felt that the use of motorboats might harm the fish population, only rowboats are allowed. This decision resulted in strong protests from the local people, since many make a living by fishing in this river during rough seas. The unemployment co-operative society, which took the contract last year, suffered losses. Despite the profitability of the business, the society had to pay an amount of Rs. 7000 per month to the BRDC. It is said that BRDC may forcibly try to introduce motorboats in order to make the venture more profitable. BRDC is also planning to start a boating service between the
Chandragiri Bridge and Thalankara fishing harbour, this year. In addition to this, the BRDC is trying to make arrangements for waste disposal and distribution of drinking water. Plans have been made to construct toilets, both private and public, in Panchayat wards occupied predominantly by fisherfolk. The project will begin on an experimental basis in a few selected places, after discussions between fisheries department, Panchayats and BRDC. The discussion will also include other issues concerning waste disposal.

Changing the systems of waste disposal would present a big challenge for BRDC, as the wastes are dumped even into the sea. A survey has been conducted in Ajanoor panchayats to find out about the effectiveness of traditional methods of waste disposal. Similar surveys were conducted in the other panchayats also. But these methods are mostly to be found wanting in capacity, when new building complexes and tourists arrive at the expected magnitude. It is interesting to note that there were no plans for waste disposal in the structural plan prepared by NM Salim.

In addition to the programs organised by the Water Authority, the BRDC is organising a big project for drinking water distribution, covering four panchayats. The initial surveys for this plan, which had been assigned to two organisations KINFRA and ICACARIN, are complete. The project is expected to be finished within 18 months. The main part of these projects is the construction of a checkdam in the Karicheri River, on a saltwater-free branch. The expected quantity from this is 8mld/day. It is claimed that only 2mld/day are required by the tourism project, and the rest is for the use of the local people. (As per earlier surveys, the Bakel project is estimated to consume 47 mld/day, when completed.)
The members of the four panchayats comprising the sole STA in Kerala, and the only 'progressing' STA in India, do not seem to have any clear perceptions or knowledge about tourism. Their stand is that tourism is exclusively the field of BRDC. It is worth noting that tourism receives no mention, even once, as a primary subject, in the development records or annual reports of the panchayats. Even though the BRDC often calls for meetings of the panchayats, to collect their opinions, some panchayats allege that that even these meetings are gimmicks. They reiterate the fact that BRDC has demonstrated its indifference by not allowing for the construction of new road as per the request of the panchayats. The Panchayat records show that the tax returns from the agricultural fields, which forms the main source of income for the panchayats, are consistently diminishing. This may be attributed to the extensive acquisition of farmlands by the BRDC. No efforts have been made, so far, by the BRDC, to compensate the panchayats for this loss of revenue, in any manner.

The current trends of scant participation by the panchayats, is not a healthy one. The panchayats seems to have restricted their sphere of activity, vis-à-vis tourism, to singing its praises, without an understanding of its process and implications. It is imperative that they demand participatory rights, which extend beyond mere attending of meetings, and submission of lists. The panchayats must participate in the control and direction of the project. It must also be recognised, by the BRDC, especially, that the current levels of development would also have not been reached without the support extended by the panchayats. Though the BRDC has evacuated only a few families from their homes, even this would not have been possible without the support of the panchayats. This influence and capability of the panchayats is only undermined and
eroded, as they continue to lose income, and are excluded from tourism and other activities, in the areas taken over by the BRDC.

The People and the Project

The responses of the people have been varied. One the one hand, there is strong protest against tourism activities, which they find objectionable. Not long ago, the BRDC plan to convert the graveyard at Kodi beach (Uduma Panchayat) into a marine park was nipped in the bud by the local people. In some other areas, the local people are using tourism to their advantage. For example, near the Pallikara Beach-Bakel Fort road, a house, belonging to one of the locals, is under construction, with the intention of being let out on daily rent to tourists. This venture probably marks the beginning of a spree along the same lines. However, in the areas predominantly populated by fishermen, tourism has not brought about much of a change.

Conclusion

The Bakel project has enjoyed a lot of publicity as the most important tourism area in Kerala. However, as this report shows, there are many problems, and issues, which remain unresolved, mostly to the detriment of the coastal environment, as well as the local communities. The specific issues and aspects of the plan and its progress can be solved only by ensuring effective, and not nominal, participation from the local communities, and their panchayats. This, it is hoped, will also address the prevailing inefficiency and complacency in the administration of the project.

The larger question also remains, of the choices in model and means of development that the project seeks to bring in. Sensitivity to the
environment, and the needs of the local community is definitely an issue. We must remain conscious of the fact that the massive amounts spent on an area scarcely visited by foreign tourists, would have yielded large profits, and created many employment opportunities, without such social and environmental costs, had it been invested in other ventures benefiting the traditional economies.
COASTS are the last grains of resource and space left comparatively undisturbed by modernity and big industries. Pristine forests and vast valleys have witnessed unrestricted intrusion of industry and commerce leaving behind barren hills and extinct flora and fauna. Increasing pressure on coasts by the new genre of development is primarily on the lookout for their massive land requirements. A coastal location also provides for easy disposal of waste and discharge of effluents into sea. The number of 'players' and competitors are also increasing since the introduction of economic liberalisation. Any pressure on coast has its immediate repercussions on sea-land dynamics. This in turn affects communities living along the coast and dependent on sea for their livelihood. A situation if let unchecked, would undermine their independence and traditional way of life.

1.1 Introduction to Programme

COASTAL ecology, change in land use pattern and community rights are the focus of Coastal Zone Watch programme. The Coastal Regulation Zone Act 1991 provides guidelines to coastal management, protection, preservation and community rights. Much heated debate is going on about the legitimacy of this Act. The coastal communities for implementation versus industry, tourism lobby and local government for abolition of this act. The thrust of the programme is to:
Pursue local governments and local administrative bodies for effective implementation of the Act

Give scientific tools to the community for preservation of coastal ecology

Awareness in communities' rights on coastal land and legal support when violated.

The programme is to be located in three coastal states of south of India. This will be the first ever programme to tackle these issues. The plans to accomplish the objectives are through:

- Monitor the coast
- Workshops & training
- Lobbying

2.0 The Premise

DEBATE on these issues came into focus with introduction of the Coastal Regulation Zone Act of 1991 by the Union Ministry of Environment and Forests (Department of Environment, Forests and Wildlife) and its strict directives on future management of coast. The Act classifies coastal region into three categories. Ecologically fragile areas as Coastal Regulation Zone (CRZ)-I, Developed urban area with infrastructure facilities as CRZ-II and tinder-developed Rural areas as CRZ-III. The Act declares coastal stretches as Coastal Regulation Zone and regulates activities in the CRZ. This regulation also applies to any water bodies with tidal influence, including backwaters, creeks, estuaries etc. It prohibits several kinds of industrial, tourism constrictions within 500 meters of High Tide line (relaxation only with prior permission) in the case seacoasts and 100 meters of other water bodies with tidal influence. The Act also regulates: disposal, discharge of waste, effluents; exploitation of resource like ground water within CRZ; protects
regions of fragile ecology and historical sites. It also locates user rights to traditional occupants of the coast.

3.0 Beneficiaries

This Act is the first to regulate development along coastal stretches. There is also an added emphasis to management of coast and coastal ecology. Despite its obvious shortcomings, the Coastal Regulation Zone Act is the best we have to safeguard the coastal ecology and the livelihoods of those dependent on a healthy coast. It protects the sensitive and fragile areas along the coast like mangroves, vegetation, estuaries and supports marine fauna like turtles and their nesting grounds. The Act seeks to check sea erosion, accretion and reclamation of both seas, rivers and other waterbodies. Industries and urbanisation are prohibited near historical monuments and heritage sites.

The communities along the coast, largely fishing communities, are benefited since this regulation recognises their rights over the coast and its resources. In fact, the regulation emphasises their right for settlements along the coast without tampering with coastal ecology. The protection of coastal ecology would also be largely in the interest of the community and their livelihood since estuaries and mangroves are the breeding and feeding grounds of large species of fish.

4.0 Conflicts

Tourism, real estate and industrial lobbies came out with stiff opposition to the Act right from the time of its inception. Their persistent lobbying succeeded in constituting a committee whose recommendations led to
an amendment of the regulation to their interest. This was challenged in the Supreme Court by peoples' groups and partially revoked.

The local state governments' attitude was even stranger. They paid no heed at all, for the implementation of this Act. The request to prepare Coastal Zone Management Plan was never taken seriously. Again, it took the intervention of peoples' groups through the Supreme Court of India to direct the concerned state governments for the implementation of this regulation. Coastal Zone Management Plans (CZMP) were prepared only after the Supreme Court passed stiff strictures. But even now, all coastal state governments are exerting political pressures on the Central government to completely reject this regulation. Their argument: This would jeopardise the economic interest of the states. This issue is not yet settled. The debate still goes on with fisherfolk, coastal peasants, and peoples' groups pressing for implementation of the Act and state governments against.

The sudden and recent change in use of the coast for tourism, shrimp farms, and various kinds of non-fishing industries including hazardous chemical industries is probably a result of the recent moves to liberalise the economy. In the meantime, lack of interest by state governments who are the implementing authorities of this regulation in their concerned states acts as a shot in the arm for these new competitors in violating CRZ.

These new developments increasingly brings pressure on coastal ecology and threatens to displace coastal communities from their living and occupational space depriving them of their traditional and customary rights. The significance of Coastal Regulation Zone Act is in this context
TOURISM is a very powerful industry (owing to its dollar-earning potential in a foreign exchange starved economy) will ability to bypass any restrictions by their sheer money power. This lobby is getting more and more powerful with the liberalisation process and had started dictating their norms to the Central and State government policies. Tourism industry was the first to oppose the regulation. They argued that coastal tourism would be adversely affected since the regulation prohibits construction of resorts within 500 Mts, of High Tide Line (HTL). Despite the regulation tourism industry continues to privatise large areas of coastal land. The new beach tourism enclave, the Bekal Tourism Project, planned along coasts of Kerala would control eight kilometres of coast, including four fishing villages, to cite an example. Similar projects of various size are planned along the coasts of Tamil Nadu and Karnataka. Full blown coastal tourism centres like Kovalam in Kerala are encroaching into neighbouring villages and work places of fishing communities. In all these instances, the priorities of the masses (including the fisherfolk and coastal agriculturists) are sidelined.

4.2 Coastal Highways

DEVELOPMENT and progress is measured in terms of highways today. There are national and multinational "infrastructure" companies with technology and funds waiting eagerly to exploit the Indian Government's new-found penchant for superhighways and roads. Coastal highways are planned and built along coastline bypassing Coastal Zone Regulations. In fact, a highway along the coast could jeopardise the whole zoning regulations set by CRZ Act. (CRZ III is rural areas without infrastructure development. A Highway can alter this area to CRZ II i.e. into an urban area) The first phase of East Coast Road (original plan is
from Calcutta to Kanyakumari cutting across all the eastern coastal states; West Bengal, Orissa, Andhra Pradesh, Pondicherry and Tamil Nadu) has already begun in Tamil Nadu. The initial stage itself witnessed the adversity this road has in store. This has uprooted villages, devastated the ecosystem and brought out immense change in land use pattern by way of urbanisation. These elevated highways are meant for heavy goods transit. The requirements of the communities, however, are roads connecting market places in relation to their economic activities. The very structure of these highways are incompatible to the village psyche. A similar 550km highway is planned along the western coast of Kerala too.

4.3 Industries

HAZARDOUS chemical industries, oil refineries and mega power projects are other violators of the regulation. The land requirements of these industries are the most immediate and visible threat to the fishing villages along the coast. The coastal district of Mangalore in the western coastal state Karnataka is under tremendous pressure. Around 35 mega industries are planned along this coast, including thermal power projects. This coast is along the foot hills of the Western Ghats, home to the Nilgiri Biosphere Reserve. Owing to opposition from fisher communities, many of these polluting industries are now being shifted to the adjacent Kerala coast. The problem is not solved. It's merely being relocated.

The Tamil Nadu coastline is also dotted with chemical industries. These industries bring enormous pressure on the coastal land, pollute the marine ecosystem, thus affecting the livelihood of the coastal communities. CRZ is an effective tool for fisher communities and environmental groups to resist this hazardous industrialisation.
COASTAL states have prawn farms along the coast. This is in spite of the proven scientific knowledge that the social and environmental effects of prawn aquaculture farms are hazardous to nature and people. While sustainable traditional methods of farming are discouraged, large industrial houses are given all Sops including World Bank funding in certain cases. The products of these farms are purely export oriented. Shrimp farms cause large-scale land alienation and ecological problems (relating to pollution of scarce land and water resources) and depletion of groundwater reserves. There are instances in Tamil Nadu where whole villages are affected forcing villagers desert their entire belongings.

4.5 Urbanisation

RURAL coastal areas are fast changing into urban centres. Infrastructure like roads relocates this process from the traditional cities. Entire coastal land along the East Coast Road in Tamil Nadu is undergoing this pressure. In the state of Kerala this process is gaining momentum after the state government announced the Coastal Highway. This would be a disaster for coastal communities since the state has one of the highest densities of population along the coast, a staggering figure of 2176 persons per square kilometre. Apart from land, this process would also consume resources like water and power.

5.0 Equations Role

CONSIDERABLE work had been done by EQUATIONS in Coastal Zone Regulation and monitoring. The first ever workshop Coastal Zones - Action Study Circle on this issue was by EQUATIONS at Kozhikode, a coastal city in Kerala on November 1995. A
comprehensive compilation of coast and coastal zone management and regulations of the three states 'Coastal Zones - An overview' was published. All coastal groups and academic circles are now using this as a handbook. This was followed by another workshop at Cochin, Harbour City of Keralam on December 1996. A survey conducted to identify the violations along the Keralam coast has also been brought out in the form of a dossier. A similar workshop in Tamil Nadu was co-hosted in February 1997. Equations plans to follow this up by another workshop in Karnataka.

EQUATIONS is part of the Campaign against the East Coast Road along the coasts of Tamil Nadu and the Campaign has successfully obtained a stay order against this project. EQUATIONS is also part of the support group for the Coastal communities of Mangalore, Karnataka against big industries and power projects along their coast. The interaction with coastal communities, their lives for the past more than a decade in tourism and other related issues is an added advantage, as is the organisation's interaction and joint activities with other coastal groups who work on organising trade unions and community development.

6.0 Coastal Zone Watch - The Programme

COASTAL WATCH programme is located in a context where various interest groups try to assert pressure on the coast to their advantage. The powerful industry lobby, backed by the momentum of economic liberalisation, is clearly in a position to turn things to its advantage. Concerned state government's apathy to implement the regulation backs them up in this tussle. The informed participation of fisherfolk and coastal peasants -- the two groups whose lives are inextricably
intertwined with the coastal ecosystem - is never sought or paid heed to.

In such a situation of imbalance, it is the responsibility of NG0s and people's organisations to equip the communities with the information required to assert their rights and ensure that their livelihood and sustenance priorities are not affected.

This programme is intended to educate the coastal community on:
1. The threats (in the form of industrial development or commercial exploitation) facing the ecosystem that nurtures them;
2. The importance of a healthy coastal ecosystem in ensuring the sustained development of coastal communities and their livelihoods;
3. The legal and social space available to them to assert their customary rights on the coast.

This programme will be an open call to coastal communities, and the scientific and legal fraternities to work together, exert pressure on state governments to implement the CRZ regulation. The joint effort will also effectively check and make sure that various industries abide this law. The aim is to save the coast and coastal communities from the harmful effects of uncontrolled exploitation of the coast for short-term commercial gains.

6.1 Programme Execution Mode

SEA, coast and people are definitely a complex proportion. The dynamics of this proportion is too vast an area. Our programme locates itself into issues of coastal industrial development, coastal ecology and community rights. Coastal Regulation Zone Act will be the bench mark
and road mark of the programme in operationalising this goal the following will be the procedure:

- Monitor the coast and document on regular basis CRZ violations and conservation aspects through:
  - Documentation
  - Collection of Data from the field
  - Empirical Research

- Educate the coastal community of their customary and legal rights (since this is a new regulation involving technical and legal aspects), legal actions, conservation, preservation and regeneration of the coast through:
  - Information dissemination to community groups
  - Educational materials
  - Interaction with legal and scientific community

- Advocate for augmentation of the regulation for more rights, effective protection and preservation of coast through lobbying:
  - Evolve Legal Resource through workshops
  - Evolve scientific resource through workshops
  - Associate policy makers and bureaucrats through workshops

7.0 Target Area, Group

THIS is the first ever attempt to concentrate solely on Coastal Zone Management and Monitoring by any group with CRZ Act as the agenda. The locus of this project would be coasts of three southern states, Tamil Nadu, Keralam and Karnataka. Accordingly each of these state will have a centre as operational base.
• Tamil Nadu, on East Coast (Bay of Bengal)
• Keralam, on West Coast (Arabian Sea)
• Karnataka, on East Coast (Arabian Sea)

Traditional communities along coast, this includes fishing and non-fishing communities (non-fishing communities use coast and estuaries for traditional occupations like toddy tapping, coir making, shell collection etc.) depending on coast and sea for their livelihood. Environment, marine scientists and lawyers participation along with community is an essential component of this programme.

7.2 Specialisation - Centre Specific

WHILE Programme Execution Mode (6.1) is common for all centres, each centre will specialise in one area. This is determined by:

• Potential challenge in relation to the planned development in each state
• Expertise, experience, resource and infrastructure each centre posses
• Existing external resource, reference facilitates available in each state

Accordingly each centre will specialise in:

Φ Keralam Centre: Monitoring

RATIONALE: Major threats to Keralam coast are privatisation of coast by tourism industry, coastal highway (proposed) and urbanisation. Thermal power projects, oil refinery and other major industries are also planned. Close watch on the land requirements, stipulated CZ Regulation norms for industries, community rights is essential.
Karnataka Centre: Environmental Impact Assessment
RATIONALE: Major threats to the coast are heavy industries, oil refineries and activities related to harbours. Thermal Power projects and beach tourism resorts are proposed in this coast. Study of Coastal and marine pollution, ground water and air pollution, exploitation of natural resource from will coast etc.. will be the task.

Tamil Nadu Centre: Legal strategies
RATIONALE: Shrimp farms and aquaculture has already devastated this coast and coastal community. Other major threats are chemical industries, tourism and urbanisation coupled with coastal highway - East Coast Road. Shrimp farms were challenged in the court of law in light of CRZ Act with success. East Coast road project was also challenged in the court. Legal education was part of these campaigns. There is a very strong net work of legal resource persons in the state who have thoroughly mastered the law.

7.3. Target Area - Kerala

WESTERN Coast of India on shores of Arabian Sea. Second in fish production in India. The coastline is 560 km long but generally narrow. The coast has historical sites and forts and is extensively covered with coconut plantations. 41 rivers debouch into the sea and is connected to networks of backwater system. Fishing community settlements run in an unbroken chain along the coastline. The density of population is very high along the coast - 2176 people/ per. sq.km. This uniqueness draws special attention in relation to the land requirements for tourist resorts, industries and highways along this coast.
Monitoring

This centre has skills for monitoring various issues specified in CRZ Act on coast. The centre’s activity with regard to monitoring consists of two tasks:

- Constant monitoring of Kerala coastline will be carried out by the centre with field visits once in three months. These visits would locate new projects and closely monitor existing projects. Wherever necessary visual documentation of violations will also be done. The centre would collate statistics. Will identify and recommend for further detailed studies of issue of vital importance. Will always be equipped to field visits for monitoring on request from local communities. (Already one round of monitoring, documenting on Keralam coast has been carried out and the findings published.)

- Will give training to Tamil Nadu and Karnataka Centre in monitoring. The centre will directly engage in monitoring complex issues on request from Tamil Nadu and Karnataka centres.

Documentation & Dissemination

- Keralam centre envisages to build a specialised documentation and reference centre on Coastal issues which would be put to use by all groups working with coastal communities. This will consist of status of existing coast, coastal and marine ecology, coastal community demography and occupational statistics. Information dissemination would be in regional language. Compilation of this information will be published quarterly.

- Will handle findings of quarterly monitoring data and take up the task of informing this to identified scientists and legal resource persons for further action.

- Preparation of education material for training workshops and occasional papers will be the task of this cell.
Workshop - Legal Education, Action

One legal workshop will be conducted every year with the agenda:

- To impart simple legal education to communities about CRZ and community rights
- Problems of community will be reported and relevant legal assistance imported
- Take stock of coastal development for necessary legal action

Workshop - for Scientific Inputs

To be conducted every year with the agenda:

- General awareness about coast and coastal ecology
- Sharing traditional wisdom with scientific community
- Update scientific knowledge for protection and preservation of coast and coastal ecology

Workshop - to Assist looking

This will be annual workshop, jointly convened by all three centres in rotation model. The main aim is to address policy makers and bureaucrat. Findings of all centres will be shared. The agenda will be to impart:

- Information on complete, update status of coastal issues
- Enforce and enhance coastal protection and community rights
- Simplify bureaucrat norms and make it more community friendly
- Comparative analysis of three centers and other coastal states

7.4. Target Area - Karnataka

WESTERN Coast of India on shores of Arabian Sea. The coastline is 320 km long with many estuaries, rich cultivation, hill forests close to the
shoreline. Western Ghats, the Biosphere reserve is very close to this coastline. Fishing is a major occupation of coastal community. Rich cultural tradition and unity makes the community a very powerful political entity. For the last three years community is in struggle against Cogentrix Power Company. Some of major ports in South India are located in Karnataka.

Environmenta I I m pacf Assessmenf

The Karnataka centre will take up technical issues related to coastal management. Every major industry has to submit an Environmental Impact Assessment report and secure clearance from the Ministry of Environment and Forests. The ability to decode technical and scientific documents like Environmental Assessment Report (EIA) will be mastered by this centre. This task will be carried out by:

- Developing a system by which various pressure points could be checked
- Quantification of impacts drawn and assessed
- Procure EIA reports cross check ground realities with site visits
- Decoding and timely intervention before clearance is given

This centre will also act as:

- Reference point for other two centres in technical matters
- Make site visits to other centers for technical assessments of projects
- Assist other coastal states on specific projects on request

Documentation and Dissemination

This centre has an existing full-fledged documentation system. The new thrust area would be a specialised collection of:

- Technical information to equip for specialised task of EIA critiquing
- Publish reports and make it available to public
- Publish education materials for workshops
Workshops - Technical

To be conducted every year with the agenda:

- To familiarise with the technical aspects of EIA to community and groups
- Guidance to gather information at local level
- Interaction with other scientist community

7.5 Target Area - Tamil Nadu

EASTERN coast of India on the shores of Bay of Bengal and Indian Ocean. The coastline is around 1000 km long. The coast has extensive mangrove forests, bird sanctuary, coastal fauna sanctuary and Marine Biological Park, which is part of Biosphere reserve. One of India's largest harbours is on this coast. The state is highest in fish production on the East Coast. Considerable amount of awareness and community organisation had taken place in this region against the highway project and prawn culture hazards. Both these issues had been challenged through courts.

Legal Strategies

The rich legal understanding and expertise gained through various struggles needs to be sharpened so as to take up new challenges. In the Indian context, Public Interest Litigation has a prominent role to play. This has more relevance in the wake of ongoing debate about moves to curb this right. The chances of dilution or scrapping of CRZ Act also is of grave concern. Therefore this centre will focus on:

- Drawing strategies for effective implementation of CRZ related Acts and Laws
- Reinterpretation of the act to enhance better protection of the coast, rights of communities
- Self equip to take the challenge of moves to curb/dilute the act.
The centre will also play vital role in:

- Legal guidance to other two centres on matters of filing cases, conducting legal workshops
- Visit the centers on specific legal issues

**Documentation and Dissemination**

The centre has documentation and library on legal issues. The new emphasis will be to:

- Procure Coast and marine law and policies national and international
- Publish legal case studies on issue specific
- Publish simplified legal materials
- Publish education and workshop materials

**Workshops - Legal**

To be conducted every year with the agenda:

- To bring together legal community, familiarise international laws
- Update interpretations, new acts, policies
- Compare with other state policies
- Interaction with coastal community, familiarise CRZ laws, rights

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