

The India MPA Workshop Proceedings

**Social Dimensions of Marine Protected Area
Implementation in India:
Do Fishing Communities Benefit?**



21-22 January 2009

IMAGE Auditorium, Chennai, India



International Collective in Support of Fishworkers
www.icsf.net

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THE INDIA MPA WORKSHOP PROCEEDINGS
March 2009

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Contents

1. Acronyms and Abbreviations.....	5
2. Preface.....	7
3. Prospectus	9
4. Statement	11
5. Report of the Workshop Proceedings.....	15
6. Appendices	
I. Maps of MPAs in India	43
II. Programme.....	47
III. List of Participants	51
IV. Marine Protected Areas in India: An Analysis.....	59
V. Fishing Community Issues in the Sundarban Tiger Reserve (STR).....	67
VI. The Gulf of Kutch (Marine) National Park and Sanctuary: A Case Study	69
VII. Social Dimensions of Sea Turtle Protection in Orissa, India: A Case Study of the Gahirmatha (Marine) Wildlife Sanctuary and the Nesting Beaches of Rushikulya and Debi.....	71



VENKATESH SALAGRAMA/ICM

Traditional fishermen returning with their catch in Orissa

Acronyms and Abbreviations

AFPRO	Action for Food Production
ANET	Andaman and Nicobar Islands Environmental Team
BCRLIP	Biodiversity, Conservation and Rural Livelihoods Improvement Project
BLC	boat licence certificate
BNHS	Bombay Natural History Society
BPL	below (the) poverty line
CAG	Citizens consumer and civic Action Group
CBD	Convention on Biological Diversity
CCRF	Code of Conduct for Responsible Fisheries (of FAO)
CEC	Central Empowered Committee
CFR	Community Forest Resource
CIFT	Central Institute of Fisheries Technology
CMFRI	Central Marine Fisheries Research Institute
CMZ	coastal management zone
COFI	Committee on Fisheries (of FAO)
COP	Conference of the Parties
COR	compounded offence report
CRZ	coastal regulation zone
DADF	Department of Animal Husbandry, Dairying and Fisheries
DHAN	Development of Humane Action
DISHA	Direct Initiative for Social and Health Action
EDC	eco-development committee
EEZ	exclusive economic zone
EIA	environmental impact assessment
FAO	Food and Agriculture Organization of the United Nations
FPC	forest protection committee
FRA	Forest Rights Act
GNAPE	Group for Nature Preservation and Education
GOMBR	Gulf of Mannar Biosphere Reserve
GOMBRT	Gulf of Mannar Biosphere Reserve Trust
GOMNP	Gulf of Mannar National Park
ICM	integrated coastal management
ICSF	International Collective in Support of Fishworkers
ICZM	integrated coastal zone management
IISc	Indian Institute of Science

IUCN	International Union for Conservation of Nature
MAB	Man and Biosphere (programme of UNESCO)
MARPOL	International Convention for the Prevention of Pollution from Ships
MDG	Millennium Development Goals
MFRA	Marine Fishing Regulation Act
MNPS	Marine National Park and Sanctuary
MoA	Ministry of Agriculture
MoEF	Ministry of Environment and Forests
MPA	marine protected area
NCF	Nature Conservation Foundation
NFDB	National Fisheries Development Board
NFF	National Fishworkers' Forum
NGO	non-governmental organization
NIO	National Institute of Oceanography
OBM	outboard motor
OILPOL	Oil Pollution Convention
OMFRA	Orissa Marine Fishing Regulation Act
OMRCC	Orissa Marine Resources Conservation Consortium
OTFWU	Orissa Traditional Fish Workers Union
PA	protected area
SEZ	special economic zone
SHG	self-help group
SIFFS	South Indian Federation of Fishermen Societies
STR	Sundarban Tiger Reserve
TED	turtle excluder device
UDHR	Universal Declaration of Human Rights
UNCLOS	United Nations Convention on the Law of the Sea
UNESCO	United Nations Educational, Scientific and Cultural Organization
VMS	vessel monitoring system
WII	Wildlife Institute of India
WLPA	Wild Life (Protection) Act

Preface

The workshop on ‘Social Dimensions of Marine Protected Area Implementation in India: Do Fishing Communities Benefit?’, organized by the International Collective in Support of Fishworkers (ICSF), in Chennai, India, during 21-22 January 2009, discussed five case studies on marine and coastal protected areas in India undertaken from a fishing community perspective. The deliberations at the workshop centred around the legal, institutional and other relevant aspects of protected area implementation in India. The workshop set forth proposals for achieving livelihood-sensitive conservation and management of coastal and fisheries resources.

The Chennai workshop brought together fishworkers, scientists, government officials and environmental groups, to discuss matters that have an increasingly powerful impact on the livelihoods of fishing communities along India’s 8,129 km coastline. The 76 participants at the workshop included representatives from the Ministry of Agriculture, Government of India, and the State Fisheries and Forest Departments of Orissa, West Bengal and Tamil Nadu, scientists from the Wildlife Institute of India (WII) and the Indian Institute of Science (IISc), environmental groups, fishworker organizations and independent researchers.

The presentations at the workshop dealt with each of the main marine and coastal protected areas on mainland India—the Gulf of Mannar National Park and Biosphere Reserve, the Malvan (Marine) Wildlife Sanctuary, the Gahirmatha (Marine) Wildlife Sanctuary, the Sundarban Tiger Reserve and the Gulf of Kutch National Park and Wildlife Sanctuary—as well as from the Lakshadweep and the Andaman and Nicobar islands. There was general agreement that conservation should not be at the expense of the livelihoods of fishing communities, and that there is need to ensure the full and effective participation of communities in all aspects of protected area implementation. The workshop also saw unanimous agreement on the importance of regulating non-fisheries activities that have severe impacts on the coastal and marine ecosystem.

The consensus Statement that was the outcome of the workshop was finalized by the participants in a process that extended beyond the workshop itself. An important emphasis in this was that new marine and coastal protected areas should be established only after considering transparent mechanisms, which incorporate principles of participation, environmental justice, social justice and human rights.

This publication—the proceedings of the Chennai workshop—will prove useful for those working on marine and coastal protected areas, including fishing community organizations, researchers, government officials, non-governmental organizations and scientists.



Source: Singh, H.S. 2002. Marine Protected Areas in India: Status of Coastal Wetlands and Their Conservation. Ahmedabad, Gujarat Ecological Education and Research Foundation (GEER)

Prospectus

Marine protected areas (MPAs) are being widely propagated as an important marine and fisheries conservation measure. MPAs are seen as a tool to achieve aquatic biodiversity conservation and habitat protection, protection of endangered species, multi-use management, sustainable extractive use, and cultural-ecological/social protection.

In 2004, the Seventh Meeting of the Conference of Parties (COP7) to the Convention on Biological Diversity (CBD) agreed that marine and coastal protected areas, implemented as part of a wider marine and coastal management framework, are one of the essential tools for the conservation and sustainable use of marine and coastal biodiversity. The meeting noted that marine and coastal protected areas have proven to contribute to (a) protecting biodiversity; (b) sustainable use of components of biodiversity; and (c) managing conflict, enhancing economic well-being and improving the quality of life. Parties to the CBD subsequently agreed to bring at least 10 per cent of the world's marine and coastal ecological regions under protection by 2012.

International experience has indicated that participatory models of conservation and resources management are more effective in protecting both livelihoods and biodiversity, and that communities can be powerful allies in efforts for conservation and management of coastal and marine resources. Empowering indigenous and local fishing communities to progressively share the responsibility of managing coastal and fisheries resources, in keeping with Programme Element 2 on Governance, Participation, Equity and Benefit Sharing in CBD's Programme of Work on Protected Areas, could meet the goals of both conservation/management and poverty reduction.

From a fisheries management perspective, there is some agreement that MPAs can be used in combination with capacity control for effective fisheries management. Discussions at the Committee on Fisheries (COFI) of the Food and Agriculture Organization of the United Nations (FAO) have stressed the need to take into account socioeconomic impacts, the need to involve stakeholders in the design and implementation, and the requirement for a clear set of objectives.

In the case of India, the first MPA was designated in 1967 for the protection of wetlands and of the birds migrating there, even before a specific legal framework for protected areas (PAs) was put in place. According to the Government of India, there are 31 MPAs in India, designated mainly in the 1980s and early 1990s. The main MPAs in mainland India are the Gulf of Mannar National Park and Biosphere Reserve, the Gahirmatha (Marine) Wildlife Sanctuary, the Gulf of Kutch National Park and Wildlife Sanctuary, the Malvan (Marine) Wildlife Sanctuary, and the Sundarbans National Park and Biosphere Reserve. There are also several PAs in the Andaman and Nicobar islands.

With the objective of documenting and analyzing the experiences and views of fishing communities living in, or near, different MPAs in India, and suggesting ways in which livelihood concerns can be integrated into the MPA programme of work, the International Collective in Support of Fishworkers (ICSF) has recently undertaken case studies in the Gulf of Mannar National Park and Biosphere Reserve, the Malvan (Marine) Wildlife Sanctuary, the Sundarbans National Park and Biosphere Reserve and the Gulf of Kutch National Park and Wildlife Sanctuary. Earlier studies undertaken on behalf of ICSF documented the conservation and livelihood conflicts in the Gahirmatha (Marine) Wildlife Sanctuary.

The studies highlight that though there are policy spaces available for participatory management of MPAs, various legal and institutional issues are hampering implementation of livelihood-sensitive approaches to biodiversity conservation and resources management, with consequences for the livelihoods of fishing communities in MPAs. The very effectiveness of the MPA initiative itself is being affected as communities do not consider themselves part of the MPA process.

OBJECTIVES

ICSF proposes to organize a two-day workshop with the following objectives:

- to discuss the findings of case studies and of other experiences of MPA implementation in India, from a fishing community perspective;
- to provide a forum to discuss legal, institutional and other relevant aspects of MPA implementation in India; and
- to put forward proposals for achieving livelihood-sensitive conservation and management of coastal and fisheries resources.

PARTICIPANTS

The workshop will bring together various institutions of the government, both at the Central and State level, fishing community representatives, non-governmental organizations (NGOs), environmental groups and scientists working on the issue of MPAs. A total of 75 participants are expected.

PROGRAMME

The two-day programme will include presentations on the following:

- Case studies of MPA implementation, including by fishworkers from the respective areas
- Experiences on MPA implementation from the Lakshadweep and Andaman and Nicobar islands
- Overview of the CBD Programme of Work on Protected Areas
- Legal and institutional issues in MPA implementation in India
- Specific presentations from relevant national and State government departments on MPA implementation
- Conservation and management initiatives undertaken by fishing communities in different parts of India

EXPECTED OUTCOMES

The workshop is expected to:

- sensitize key stakeholders to issues related to conservation and livelihoods;
- develop an informal multidisciplinary platform of those interested in promoting livelihood-sensitive conservation and management;
- create greater awareness of community-led conservation models and the willingness to support them in an Indian context; and
- orient MPA implementation towards a more participatory and livelihood-sensitive approach.

Statement

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

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

Being concerned about the livelihood problems encountered by at least 10 per cent of the active marine fisher population of India from unfair restrictions on their fishing operations in the course of implementing marine and coastal protected areas, such as the Gulf of Mannar National Park, Tamil Nadu; the Gahirmatha (Marine) Wildlife Sanctuary, Orissa; the Gulf of Kutch Marine National Park and Sanctuary, Gujarat; the Sundarban Tiger Reserve, West Bengal; and the Malvan (Marine) Wildlife Sanctuary, Maharashtra;

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

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

DO HEREBY RECOMMEND:

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

Full and active participation of fishing communities in decisionmaking at all stages of marine and coastal protected area identification, planning, designation, implementation, review and evaluation should be ensured, in policy, law and practice, to meet both social and conservation objectives, drawing upon good practices within and outside India.

Fishing communities should be considered as allies, and community-led initiatives for management and conservation should be recognized and supported; diverse, participatory and site-specific approaches for the conservation and management of coastal and marine resources, should be promoted.

Fishing rights of small-scale fishers using sustainable fishing gear and practices should be protected. Should fishing activities be regulated, adequate compensation should be provided, and a systematic and participatory approach for enhancing and diversifying livelihoods of affected communities should be adopted.

Implementation of existing marine and coastal protected areas should be reviewed on an urgent basis, in the light of principles of participation, environmental justice, social justice, and human rights, with a view to addressing issues facing fishing communities in these areas.

New marine and coastal protected areas should be considered only after transparent mechanisms, incorporating principles of participation, environmental justice, social justice, and human rights, for designating and managing such areas, are established.

(2) Address threats to coastal and marine ecosystems from non-fishery sources

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

(3) Enforce Marine Fishing Regulation Acts in all the States and Union Territories

Effective implementation of Marine Fishing Regulation Acts in territorial waters, particularly enforcement of non-mechanized fishing zones, mesh-size regulation and the regulation of destructive fishing gear and practices, such as the use of explosives, bottom-trawling and purse-seining, should be ensured to improve fisheries conservation and management in territorial waters. Co-management arrangements should be considered to improve the effectiveness of fisheries management.

(4) Adopt legislation to conserve and manage living resources of the EEZ

An effective conservation and management regime for living resources, including fisheries, of the entire Indian exclusive economic zone (EEZ) should be developed through a participatory process. In this context, reviewing, amending and strengthening relevant legislation, including the Marine Fishing Regulation Acts, and adopting an environmental action plan for fisheries, setting out measures that can be used towards conservation and management of fisheries resources, should be considered.

(5) Adopt an integrated approach for the management of coastal and marine living resources

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

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

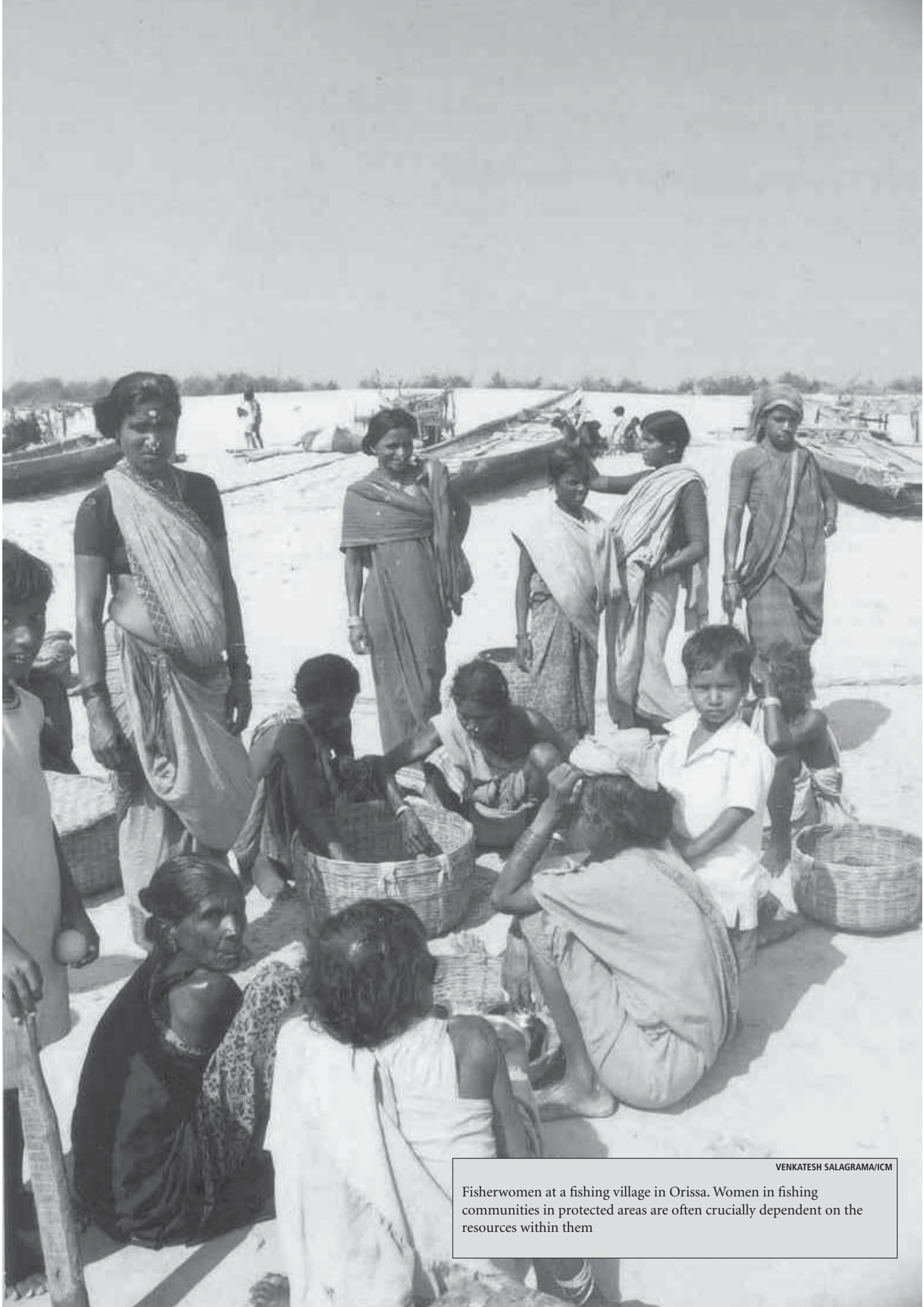
SIGNATORIES

Organizations

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

Individuals

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



VENKATESH SALAGRAMA/ICM

Fisherwomen at a fishing village in Orissa. Women in fishing communities in protected areas are often crucially dependent on the resources within them

Report of the Workshop Proceedings

INAUGURAL SESSION

Chair: Nalini Nayak, Founder Member, International Collective in Support of Fishworkers (ICSF)

The two-day workshop started with Nalini Nayak, Founder Member of the International Collective in Support of Fishworkers (ICSF), welcoming workshop participants, who included representatives of the Ministry of Agriculture, the State Fisheries and Forest Departments of Orissa, West Bengal and Tamil Nadu; scientists from the Wildlife Institute of India (WII) and the Indian Institute of Science (IISc), environmental groups, fishworker organizations and independent researchers.

Tracing ICSF's origin to 1986, as an organization created to support the activities of small-scale fishworkers globally, Nayak pointed out how ICSF facilitates interaction between the various stakeholders in fisheries—fishworkers, governments, non-governmental organizations (NGOs) and other support agencies. She thanked the Ministry of Agriculture (MoA) and the National Fisheries Development Board (NFDB) for their participation in, and support for, the workshop.

While introducing the topic of marine and coastal protected areas (MPAs)¹ in India, Chandrika Sharma, Executive Secretary, ICSF, sketched out the canvas of issues for the workshop, and outlined its objectives and expected outcomes. The two-day workshop was to discuss the findings from the five case studies undertaken by ICSF—on the Gulf of Mannar National Park and Biosphere Reserve, the Malvan (Marine) Wildlife Sanctuary, the Gahirmatha (Marine) Wildlife Sanctuary, the Sundarban Tiger Reserve, and the Gulf of Kutch National Park and Wildlife Sanctuary—to document the fishing community perspective on marine and coastal protected areas. The workshop was also meant to provide a forum to discuss the legal, institutional, and other relevant aspects of marine and coastal protected area implementation in India, and to put forward proposals for achieving livelihood-sensitive conservation and management of coastal living resources.

Sharma pointed out that the objectives for setting up marine and coastal protected areas varied. What is common, however, is that there are no clear estimates on the number of people dependent on them. Available estimates indicate that approximately 10 per cent of the active marine fisher population of India are affected by the regulations in place in the five major marine and coastal protected areas along mainland India. Summarizing some of the key issues from the case studies, Sharma highlighted that large numbers of men and women in fishing communities, dependent on resources in PAs, are facing loss of livelihoods through restrictions on fisheries. Apart from this, there is a common feeling of victimization and alienation due to the manner in which regulations are implemented, especially since efforts at creating alternative livelihood opportunities have remained limited. There is also little systematic effort to improve access to basic services for enhancing long-term livelihood options. The focus has been mainly on regulating fisheries, while degradation and pollution caused by non-fisheries factors have not been dealt with, compromising the very objectives with which the PAs were set up.

¹ The term 'MPA', as used in this report, refers to marine and coastal protected areas, which, in the current context in India, refers to National Parks and Sanctuaries declared under the Wild Life Protection Act (WLPA) in coastal and marine areas.

It would be useful, Sharma said, if the workshop could discuss these issues and concerns, and agree on specific proposals for strengthening socially just fisheries management regimes on a wider scale, with PAs as one of the available tools. Proposals identified should be consistent with India's international obligations. Sharma concluded by highlighting the need for greater collaboration and co-ordination mechanisms between the various departments, ministries, fishing communities and other stakeholders.

Opening remarks

In his opening address, M. K. R. Nair, Fisheries Development Commissioner, Department of Animal Husbandry, Dairying and Fisheries (DADF), Ministry of Agriculture, Government of India, said that fishers residing in nearly 3,000 villages along the 8,129-km long coastline of India are the traditional and historical owners of the resources in these areas. However, with economic development and industrialization, other actors have also begun using these spaces. While there is consensus on the need for regulations from an environmental perspective, restrictions on fishing in inshore waters due to the establishment of marine and coastal protected areas have posed problems to fishers. The impact of such developments on small-scale artisanal fishers, who are already below the poverty line (BPL) and have no other livelihood options, has been severe.

Nair drew attention to the increasing pressure on fisheries resources, which, in some cases, is compelling fishers to use destructive gear. He highlighted the measures taken by the Fisheries Departments in implementing the uniform ban on mechanized fishing on the east and west coasts of India, and called for exploring the potential of self-imposed bans and community-based decisionmaking for improving fisheries management.

Nair urged the involvement of State Fisheries Departments in the setting up of marine and coastal protected areas, and in deciding on regulations and restrictions on fishing. The Fisheries Departments need to be proactive, and should discuss these regulations with the fishers, ensuring that fishers' welfare requirements are taken care of. He proposed that a system of co-management for PAs should be put in place by line departments, along with NGOs and self-help groups (SHGs).

Further, marine and coastal protected areas should not be seen as islands of protection, with degrading and destructive activities being allowed unchecked in adjacent areas; rather, they should be located within a balanced seascape approach. There is need to take into account pressures from non-fishery activities, such as shipbreaking yards, oil refineries, tourism, coastal aquaculture, and illegal activities from the seaward-side that are encroaching on fishers' lands and waters, shrinking their fishing grounds, putting pressure on fishery resources and barring their access to the sea. Humans need to be seen as an integral part of the ecosystem, and there must be provisions for sustainable and rational use of resources.

Closing the inaugural session, Nalini Nayak pointed out that women are also affected by restrictions arising from marine and coastal protected areas, and the role of women should be kept in mind during the deliberations of the workshop.

CASE STUDY PRESENTATION: GULF OF MANNAR NATIONAL PARK AND BIOSPHERE RESERVE, TAMIL NADU

Chair: Kartik Shanker, Assistant Professor, Centre for Ecological Sciences, Indian Institute of Science (IISc), Bangalore, and Founder Trustee, Dakshin Foundation

Presenters: S. Arulanandam, Legal Advisor, Ramnad District Fishworkers' Trade Union, Tamil Nadu and Ramya Rajagopalan, Consultant, ICSF

Ramya Rajagopalan provided an overview of the Gulf of Mannar National Park (GOMNP) and the Gulf of Mannar Biosphere Reserve (GOMBR). The GOMNP was designated in 1986 to protect coral reefs, seaweeds and mangrove ecosystems, and covers an area of 560 sq km, comprising 21 uninhabited islands. The Biosphere Reserve was later designated in 1989, under the Man and Biosphere (MAB) Programme of the United Nations Educational, Scientific and Cultural Organization (UNESCO). Approximately 125 fishing villages are directly dependent on the resource in the National Park, spread across two districts—Ramanathapuram and Tuticorin. The Biosphere Reserve is managed by the Gulf of Mannar Biosphere Reserve Trust (GOMBRT), which works with 252 villages in the area, which are directly/indirectly dependent on the resource.

The designation of the National Park has affected 35,000 active fishers, including 5,000 women who collect seaweed, and 25,000 fishers who dive for sea cucumber, as fishers are denied access to the fishing grounds surrounding the 21 islands, declared as a National Park, where no extractive activity is allowed. Apart from the regulations under the Wild Life (Protection) Act, 1972 (WLPA), the Marine Fishing Regulation Act (MFRA), 1983, of Tamil Nadu prohibits trawling within 5 km from the shore, and bans pair trawling and purse-seining in its territorial waters. A closed season is also observed for a period of 45 days during the monsoon, and the Ramanathapuram District fishing regulations restrict fishing by mechanized vessels for three days in a week, and non-motorized fishing for four days in a week, (called the “3-4 day rule”). The Fisheries Department also issues tokens to mechanized fishing vessels fishing in this area on a daily basis, and restricts the number of outboard motor (OBM) vessels, for security reasons.

Among the key issues faced by fishers in the region are: restricted access to fishing grounds; encroachment by pair trawlers; and unrestricted development activities along the coast. Rajagopalan also elaborated on the self-imposed regulations implemented by fishing communities to protect their livelihoods, such as gathering seaweeds with only non-destructive methods, and restricting their collection to 12 days in a month.

Highlighting the fishing community perspective, S. Arulanandam of the Ramnad District Fishworkers' Trade Union, stated that fishing communities were not consulted in planning, designing, implementing and reviewing the National Park and its management. As a result, fishers who see themselves as the traditional custodians of the resources have been alienated from their traditional fishing grounds and are currently positioned as beggars in relation to the use of the PA resources. People feel that while they were once kings of the sea, now they have to beg to use their own resources.

The fishers' union, Arulanandam said, is calling for the full and active participation of people in not just the implementation but also in the preparation and review of management plans, and in all phases in decision-making process. While Forest Department officials often claim that notifications are published on the Internet, this is inappropriate, considering local realities. The need is to put in place transparent institutional structures with better co-ordination among the various enforcement agencies.

Arulanandam said that restrictions and regulations have affected livelihoods, and demanded long-term, alternative livelihoods for future generations, and short-term alternate livelihoods for the present

generation, to reduce the pressure on fishery resources. Direct marketing and processing facilities should be provided, especially for seaweed collectors. The union is also demanding that traditional fishers, using non-motorized vessels, should be allowed to fish near the islands, and that existing community initiatives should be recognized, including the initiatives for seaweed conservation. Other action points listed by the union included demarcation of boundaries, measures for joint patrolling, and addressing the threats posed by development activities. The need for socioeconomic data was deemed critical for comprehensive, long-term alternative livelihood proposals.

Comments

H. Malleshappa, Conservator of Forests, Virudhunagar District, Tamil Nadu, and V. Naganathan, Eco-development Officer, GOMBRT, shared information on the various activities of the Trust, especially on its alternative livelihood programmes. They said that since 2004, the situation of fishers has improved, as they have been involved, through SHGs and other committees, in resource management and alternative livelihoods programmes. Efforts are being made to enhance local skills, markets and resources, they added.

R. Muthuswamy, Joint Director, Department of Fisheries, Tamil Nadu, stated that efforts have been taken to implement the MFRA and other fishing regulations. P. Rajan, Team Leader, DHAN Foundation, Madurai, Tamil Nadu, which works to strengthen the livelihoods of local communities in the Gulf of Mannar, highlighted the need for community-driven, participatory conservation models that integrate the traditional rights and knowledge of local communities.

Discussion

Members of the Ramnad District Fishworkers Trade Union questioned the very notion of marine and coastal protected areas. They highlighted the need for better fisheries management and strict implementation of the MFRA, noting that violations are common, and that penalties imposed for MFRA violations are not stringent enough to deter violators.

One of the participants drew attention to the major impact that the GOMNP has had on the lives and livelihoods of fishers, and the need to develop concrete strategies to address the social and economic costs of these impacts. The concepts of 'alternate' income generation and 'alternative' sustainable income generation were debated. Some participants shared their reservations on the use of the word 'alternative', as it might reinforce and legitimize cutting off fishers' rights to, and links with, resources. The fishworkers present said that their rights to resources must not be compromised, and that alternative livelihoods should be seen as one way of reducing the pressure on the resources. Some others felt that what is labelled as 'alternative' is better termed as 'supplementary'.

CASE STUDY PRESENTATION: SUNDARBAN TIGER RESERVE AND NATIONAL PARK, WEST BENGAL

Presenter: Pradip Chatterjee, Chief Co-ordinator, Direct Initiative for Social and Health Action (DISHA), West Bengal

Chair: Pankaj Sekhsaria, Member, Kalpavriksh

A multiplicity of PA designations characterizes the Sundarbans area—the Sundarban Tiger Reserve (STR), declared in 1973; the Sajnekhali Wildlife Sanctuary, declared in 1976; and the Sundarbans National Park (and World Heritage Site), declared in 1984. Further, the area was also declared a Biosphere Reserve under the MAB programme in 1989.

In his presentation, Pradip Chatterjee provided an overview of fishing regulations applicable inside the STR, which includes restricting the number of fishing craft through boat licence certificates (BLCs), annual registration fees for BLCs and seasonal passes and permits to fish for BLC holders. Only non-motorized vessels are permitted to fish in the Buffer Area of the Sundarban Tiger Reserve, he said.

Fishing is a seasonal occupation for communities living in villages in remote areas in the Sundarbans, where access to potable water and other basic facilities is poor. The livelihood concerns highlighted by the communities include the fixed number of BLCs, some of which are inactive and difficult to transfer due to lengthy and complicated procedures; arbitrary fines for non-renewal of permits on time, and lack of clear guidelines for levying fines for fishing violations. Communities also face problems from dacoits in the region, and from human-animal conflicts. The women who collect prawn seeds are also affected by protected area regulations. Some of them have been organized into SHGs, but often, they are neglected and are not involved in decision-making processes.

The Sundarbans Matsajibi Joutha Sangram Committee², a committee of nine fishworker organizations, is calling for restrictions with a human face, said Chatterjee. It is demanding a legitimate role for fishers in designating and managing PAs, and in developing rules and regulations. It is also calling for transparency in the implementation of regulations. It seeks humanitarian treatment of fishers. On the other hand, the United Fishermen's Association³, another fishworker organization, is calling for removal of all restrictions on fishing within the Reserve.

Chatterjee highlighted the need for transparent guidelines for fines and penalties imposed for violations, proportional to the offence and to the socioeconomic status of fishers. Fine receipts should be issued in the local language, and the management plan for the Reserve should be prepared in a participatory manner and made available to the public, he stressed. Chatterjee also highlighted the need to allow for innocent passage of motorized vessels through the Buffer Area, to decrease the time and operational costs incurred in reaching fishing grounds. Appropriate compensation needs to be provided to victims of human-animal conflicts, irrespective of the location of incidents. Chatterjee further pointed to the need for comprehensive gender-segregated data on the number of people dependent on the STR. Alternative livelihood initiatives, through the Eco-development and Forest Protection Committees, and ecotourism, should benefit all affected families, especially the local fishers who are the worst hit. Chatterjee, referring to the provisions of the Forest Rights Act, called for recognizing the rights of communities who do not live within the STR, but depend on it for their bona fide livelihood needs.

2 Joint Committee for Struggle of Sundarban Fishermen, linked with the Dakshin Banga Matsyajibi Forum and the National Fishworkers' Forum. It is a federation of fishers' organizations that are either independent or affiliated to different political parties. There are 3,000 members in the federation.

3 Eleven fishermen's associations formed the West Bengal United Fishermen's Association at the initiative of the Sundarban Fishermen and Fishworkers Union.

Comments

Madhumita Mukherjee, Joint Director, Department of Fisheries, West Bengal, emphasized the need for better co-ordination between the State Forest and Fisheries Departments. She pointed out the need to address overlaps. The Fisheries Department, for example, has already issued 10,000 identity cards to fishers. The Forest Department has also recently issued identity cards to the fishers fishing in the STR area. Mukherjee highlighted the need for research on fish species, and for including threatened Indian species in the IUCN Red List. She identified shrimp seed collection, conversion of river banks into real estate, and pollution by sewage and plastics as major threats to fish habitats in the Sundarbans.

Anjan Guha, Assistant Field Director, Sundarban Tiger Reserve, West Bengal, emphasized the need for *in situ* conservation. Guha expressed the willingness of the Forest Department to collaborate with other stakeholders, including the Fisheries Department, in managing the resources of the Sundarbans. Tackling unlawful activities should not be equated with harassment, he stressed. As the Forest Department is responsible for enforcing regulations in the PA and for checking illegal entry, this is prone to be perceived by local communities as harassment. Responding to the recommendation on reducing fines, he clarified that, under the WLPA, the maximum fine amount is Rs1,150. Moreover, importance is given to a humanitarian approach. Guha agreed that gender-segregated socioeconomic data was necessary.

Discussion

Fishworker participants, drawing attention to the restrictions imposed on traditional fishers from entering the Core Area of the Tiger Reserve, asked why, despite these restrictions, the biodiversity in the Sundarbans is fast disappearing. Why are permits being issued to tourist boats to ply in the area, even as fishers are denied entry, they asked. They also drew attention to what they perceived as harassment of fishermen by enforcement officials, and to several reported cases of torture and imposition of heavy fines for passing through the STR to reach fishing grounds. They reiterated the need to simplify procedures for transfer of BLCs.

One participant said that the use of the word 'protection' instead of 'conservation' is problematic, in that it blocks options for sustainable use of resources. How much of the money earmarked for conservation was targeted at fisherfolk, it was queried. Guha clarified that while funds for eco-development from the Ministry of Environment and Forests (MoEF) are decreasing, existing eco-development initiatives are in the fringe areas and thus mostly targeted at fishermen.

CASE STUDY PRESENTATION: GAHIRMATHA (MARINE) WILDLIFE SANCTUARY, ORISSA

Chair: C. M. Muralidharan, Consultant, Food and Agriculture Organization of the United Nations (FAO)

Presenters: Narayan Haldar, President, Orissa Traditional Fishworkers Union (OTFWU), Orissa, and Giridhari Giri, OTFWU

Giridhari Giri presented an overview of turtle protection measures in Orissa. There are three mass nesting beaches in Orissa for olive ridley turtles—the Gahirmatha coast, and the Debi and Rushikulya river mouths. The Gahirmatha (Marine) Wildlife Sanctuary was declared in 1997 to protect, propagate and develop wildlife. The Sanctuary extends 20 km into the territorial waters and comprises 1,408 sq km of water and 27 sq km of land. The responsibility for management of the PA lies with the Department of Forests, Government of Orissa.

Nearly 30,000 active fishers are affected by turtle protection measures in Orissa, with those in Kendrapara District being the worst hit. Of the affected fishers, 43 per cent are from the BPL category, with limited access to water, health, paved roads and market facilities. The women involved in allied fishery activities and crab collection in creeks are also affected by the regulations in place.

Elaborating on some of the main problems faced by small-scale fishers in the area, Narayan Haldar said that even fishers passing through, but not fishing in, the Barunei and Dhamra river mouths, are being arrested by the Forest Department; recently, two fishers—one from Orissa and another from West Bengal—were accidentally shot at in encounters. Such occurrences are despite the fact that the WLPA has provisions for innocent passage of fishers and vessels.

Haldar recalled that until 1997, the Forest Department merely charged a small fine for violations. In recent years, fishers found violating regulations are taken to court, and their vessels and gear confiscated. The ensuing legal process is lengthy and cumbersome, and the confiscated vessels often fall into a state of disrepair for want of proper maintenance and care. The OTFWU, Haldar said, has consistently called for safe custody of the confiscated vessels. He also pointed to the acute mental stress that fishers face on account of the growing restrictions on fishing and the resultant loss of livelihoods. Their inability to pay back debts caused six fishers to commit suicide in the recent past, he added.

Haldar also pointed out that measures suggested by the Central Empowered Committee (CEC), constituted by the Supreme Court of India, were yet to be implemented, and the Task Force set up on 20 July 2008 was yet to meet officially. To date, neither the Fisheries nor the Forest Department has provided any compensation to the affected fishers. The amount of effort and financial resources expended on turtle conservation contrasts sharply with the lack of concern for small-scale fishers, Haldar said, stressing that alternative livelihoods should be made available for future generations.

The OTFWU has proposed that the limits of the Sanctuary be reduced from the present 20 km to 10 km, with a five-km zone as the Core Area near the coast, and the rest as a Buffer Area. The union is suggesting that small motorized vessels be allowed to fish in the Core Area in a sustainable manner. The fishers are willing to self-regulate their fisheries through rotational access and regulation of craft and gear. The OTFWU is also demanding the implementation of the five-km 'trawl-free' zone under the Orissa Marine Fishing Regulation Act (OMFRA), the development of guidelines for implementing provisions on occupational interests of fishers under the WLPA, and the installation of vessel monitoring systems (VMS). It is also calling for participatory enforcement and monitoring to reduce conflicts; scientific studies on turtle mortality; and regulation of other non-fishery-related activities that have an impact on turtle mortality.

Comments

Replying to Halder, Bijay Ketan Patnaik, Principal Chief Conservator of Forests (Wildlife) and Chief Wildlife Warden, Forest and Environment Department, Government of Orissa, said that the importance of people's participation in conservation is now well recognized. In the new Joint Forest Management resolution of the Government of Orissa, eco-development committees have been recognized. This provides a legal channel to the Forest Department to work with people who reside within PA boundaries, and to procure funds for initiating alternative livelihood initiatives. Patnaik also said that there is a proposal to declare the Rushikulya and Debi river mouths as Conservation Reserves, allowing for traditional fishing rights to be kept intact.

On the issue of settlement of rights, Patnaik said that the District Collectors are responsible for enquiring into, and settling, the rights of people in PAs. As for allowing fishing with sustainable gear inside the Sanctuary area, he said that in a Sanctuary, according to the law, not even a blade of grass can be removed. A petition filed by the Orissa government to allow people residing in a Sanctuary to collect minor forest produce, such as *tendu* leaves, is pending in the Supreme Court. If permission is granted, removal of fish from Sanctuaries may also be allowed. Patnaik highlighted the need to restrict the number of trawlers in order to ensure fair access to resources for traditional fishers. He also agreed on the need to ensure that provisions for safe passage are implemented, as provided by law. There is also need to explore the involvement of OTFWU in monitoring activities, he concluded.

V Sampath, Ex-Adviser, Ministry of Earth Sciences, Government of India, said that both foresters and fishers must change their mindsets to resolve differences. He emphasized the need for a clear consensus on safe, innocent passage, as provided in the WLPA. He called for scientific studies on turtle movements, to rationalize the Sanctuary area and to estimate the effectiveness of existing bans on the mortality pattern of turtles. Currently, for purposes of turtle conservation, fishing is not permitted on 210 days (out of the 240 days available for fishing). It is important to evaluate such measures and to strike a balance between resource conservation, protection and utilization, Sampath said. Referring to a 1995 World Bank document that found that only one-third of marine and coastal protected areas had achieved their management objectives, he stressed the need to review the effectiveness of the marine and coastal protected area model.

Sampath added that to involve fishers in conservation, compensation in cash and kind must be considered, and alternative livelihood options developed, based on needs, available skills and appropriate market linkages. Sampath also emphasized the need for effective enforcement of the OMFRA and for a sound monitoring system to check intrusion by vessels of neighbouring States into the coastal waters of Orissa.

Sampath brought to the notice of the participants the draft fisheries policy prepared by the Orissa Fisheries Department, now awaiting approval, which has provisions for community participation in conservation, and for alternative livelihood options through upgradation of skills. The proposed policy underscores the need to strengthen fisheries management through better enforcement. It also outlines various input control measures that are necessary to improve fisheries management, including putting a cap on the number of vessels operating in Orissa's territorial waters, regulating engine power and gear, seasonal closures, and so on.

Raising issues related to the philosophy of conservation, Aarthi Sridhar, Researcher, Dakshin Foundation, Bangalore, said that conservation is just one facet in the lives of fishing communities. Marine and coastal protected areas could be used as channels to explore possibilities of increasing the role of fishing communities in governance and development. She wondered whether the current legal framework for PAs is adequate to address these issues. In the Orissa context, the issues of both trawler owners and workers need to be addressed, she emphasized.

Discussion

To a query on the impact of the Dhamra port coming up in the vicinity of the Gahirmatha Sanctuary, it was informed that environmental clearance for the project had earlier been granted by the Department of Commerce and Transport, Government of Orissa. The State Forest Department has subsequently asked the National Institute of Oceanography (NIO), Goa, to conduct a study on the port.

Another participant urged the Government of Orissa to take seriously the proposals put forward by the OTFWU. He pointed out that turtle mortality is continuing at an alarming rate, and 10 years from now, if things continue in the same way, there will be no nesting beaches left. These are eroding rapidly, possibly due to the construction of a series of ports and channels in their vicinity. The participant also highlighted the impracticality of protecting the 1,400-sq km of Sanctuary area. It would be better to focus on protecting just the area where the turtle congregations actually are—an area of about 50 sq km. It is important that this protection is effective and in this, there is need to partner with the Fisheries Department as well. There is need to review the management plan for the Sanctuary for the period 2008 to 2018, and to build in mechanisms to facilitate the participation of fishers themselves in monitoring. A management plan should be seen as a dynamic document, it was proposed. Provisions to allow removal of a renewable resource such as fish, using sustainable gear, for livelihood purposes, should be included in the management plan, it was argued.

One of the participants questioned the rationale of setting up marine and coastal protected areas if, even after years of protection in Gahirmatha, the very survival of turtles is still at stake. Perhaps the protected area strategy itself is not appropriate. This appears to be a classic 'lose-lose' situation—on the one hand, thousands of people have lost their livelihoods, while, on the other, the survival of turtles has still not been secured. Do we need to go back to the drawing board, and factor in external, non-fishery developments such as ports and channels, one participant asked.

Another participant pointed to the need to look at the larger picture. Turtles should be seen as flagship species, and the conservation measures adopted should actually lead to an overall improvement in fisheries management and in the health of fisheries resources. For conservation to be effective, partnering with fishing community organizations is essential. So far, management has been largely on paper, and must be strengthened if such objectives have to be achieved. It was further highlighted that, in fact, both turtle conservationists and small-scale fishers want the same thing—to keep the trawlers beyond the five-km inshore area, and to prevent the privatization and destruction of coastal habitats. Often, there is a tendency to lose sight of common objectives because of entrenched positions. The need is really to build alliances for common objectives, it was said.

CASE STUDY PRESENTATION: GULF OF KUTCH (MARINE) NATIONAL PARK, GUJARAT

Chair: Harekrishna Debnath, Chairperson, National Fishworkers' Forum (NFF)

Presenters: Nilanjana Biswas, Independent Researcher, and Bharat Patel, Fisheries Sector Co-ordinator, SETU Information Centre, Gujarat

The Gulf of Kutch (Marine) National Park and Sanctuary was notified in 1980 and re-notified in 1982. It covers 42 islands, including parts of the inter-tidal zone, Reserve Forests, unclassified forests and territorial waters, comprising an area of 457.92 sq km, and is very rich in biodiversity.

Nilanjana Biswas pointed out that the livelihoods of fishing communities and other natural-resource-dependent communities, such as camel grazers, were not considered while the Park was set up. Most affected are the *pagadiyas*, who wade into the waters and use stake-nets for fishing, and those on *hodis* (plank-built boats/fibre boats). She also drew attention to the issue of overlapping jurisdictions within the National Park and Sanctuary. For example, apart from the Forest Department, the Gujarat Maritime Board, responsible for shipbreaking, ports and jetty construction, also has jurisdiction over the area. Multiple legal regimes and requirements, often conflicting with one another, cause problems in designing and implementing appropriate conservation and management measures, Biswas said. The rationale for demarcation of the boundaries of the National Park and Wildlife Sanctuary still remains unclear, she observed. There is apparently an outdated management plan with the Department, which is not, however, available to the public.

Biswas pointed out that the WLPA is not equipped to deal with the specific needs of marine protection, and to address pollution and related threats from industrial and other destructive activities, which often take place outside the boundaries of the marine park. She highlighted the severe threats the Park faces from industrial activities, especially from the petrochemical industries, oil pipelines passing through the PA, cement and coral mining, fertilizer plants, ports, shipbreaking units and special economic zones (SEZs), and other chemical industries. Afforestation activities have been initiated by some of the industrial units to compensate for the loss of mangroves due to development projects.

Fishing communities are especially affected by the restrictions on entry into traditional fishing grounds and by oil spills, Biswas noted. Women are turning to wage labour to earn a livelihood. These developments have disrupted community life, and have had negative impacts on health, drinking water availability and food security. The effect on women's health, as shown by the increased maternal mortality in the last four years, has been particularly severe. Pointing to the social, economic and environmental perils of the growth development model being pursued by the State of Gujarat, Biswas said that the PA tool of conservation appeared to be inappropriate in a free-market economy.

Bharat Patel of SETU Information Centre, showed, on a map, the industrial and other developments taking place along the coastline of Gujarat, and of Kutch, in particular. He observed that industries and SEZs are being sited close to the National Park and Sanctuary, against the recommendations of the Department of Ocean Development. The environmental impact assessments (EIAs) of the various projects are also questionable, he added, stressing the irony of restrictions on fishers while chemical and other polluting companies continue to function just outside the National Park and Sanctuary. As a consequence, feelings of anger and alienation are common among fishing communities, he noted.

Discussion

Participants agreed that the biologically rich and unique ecology of the Gulf of Kutch faces several threats; scientific data for the past decade confirms that the Sikka area in Jamnagar District has been biologically destroyed, it was pointed out.

Fishworker representatives said that the current management regime, in effect, victimizes the smallest of fishers—the *pagadiyas* who fish using stake-nets, shell collectors, *hodi* boat fishers, and women—even as industrial activities that are causing significant damage to the environment on a much larger scale, face little regulation. This is injustice, they said.

Several participants highlighted the need for effective regulation of industrial development. Transparent and accountable mechanisms for EIAs are necessary to ensure that environmentally destructive development activities are not permitted. EIAs must be undertaken by independent and accountable agencies, and these should be repeated, on a periodic basis through a peer review process after project implementation. Also mooted was the idea of a consortium of institutions to undertake comprehensive EIAs. It was stressed that conservation groups need to find minimum common ground and to work together to make this possible.

A participant pointed out that, at present, oil blocks are allotted to companies by the Ministry of Petroleum, and EIAs are conducted subsequently on a case-by-case basis. It is important that this process be reviewed to ensure that areas rich in biodiversity are not allocated in the first place. Social audits and EIAs must be undertaken before blocks are allocated to companies for hydrocarbon exploration, it was stressed.

One of the participants drew attention to the larger context of development within which conservation is located. As the fishery gets capital- and technology-intensive, fishers themselves are adding pressure on the resource. Fishers need to draw the link between their own fuel dependence and demands for fuel subsidies, and the growing priority and support being provided by the State to oil companies. Fishing grounds are shrinking as areas are being demarcated for oil exploration and drilling. There is need to rethink the trajectory of fisheries development itself.

Fishworker organizations reiterated the fishing communities' demands for a comprehensive, not piecemeal, approach to the management of the marine environment, noting that the root causes of habitat destruction and depletion should be addressed. Supporting this stance, one participant stressed the need to use a "sea + landscape approach", to ensure better management, moving away from compartmentalized approaches. It was agreed that though the task of democratic mobilization of communities is challenging in the current social, political, economic and cultural context of Gujarat, recent efforts at mobilization by movements and organizations do provide hope.

BHARAT PATEL/SETU



A woman drying fish in the Gulf of Kutch. With increasing restrictions on entry into traditional fishing grounds, women in fishing communities are turning to wage labour to earn a livelihood

CASE STUDY PRESENTATION: MALVAN (MARINE) WILDLIFE SANCTUARY, MAHARASHTRA

Chair: Harekrishna Debnath, Chairperson, National Fishworkers' Forum (NFF)

Presenter: Ramesh Dhuri, Malvan Taluka Shramik Machhimar Sangh, Malvan, Maharashtra

The Malvan (Marine) Wildlife Sanctuary was designated in 1987 for protecting coral reefs, mangroves and rocky shores. Subsequent Notifications were issued in 1991 and 1992. The Malvan fisherfolk population of 9,012 resides in 19 fishing villages. Around 7,000 people are dependent on the resources of the Sanctuary. Out of the total PA of 29.12 sq km, an area of 3.18 sq km has been designated as the 'no-take' zone. The Buffer Area includes seven fishing villages.

Ramesh Dhuri said that though the fishers of Malvan believe that conservation is important, it is the lack of consultation and transparency in the way in which the Sanctuary was declared that has made the community protest against its establishment. He pointed out that the rights of communities owning land inside the Sanctuary are yet to be settled, and fishers do not agree with the plans for the resettlement of residents around the landing centre and the fishing villages in the Buffer Area.

The fishworkers' union has been demanding that local people be actively and fully involved in identifying, formulating and designing the project, after their prior informed consent has been obtained. The union has also been calling for: the constitution of a Sanctuary Advisory Committee to manage the Sanctuary and to demarcate its boundaries; implementation of existing fishing regulations, especially under the MFRA; and addressing threats from tourism and pollution on an urgent basis. They are further demanding that gender-segregated socioeconomic data should be collected for long-term planning and management, said Dhuri. Noting the resistance of the local people, at a recent meeting, government officials apparently proposed shifting it to Vengrula *taluka* in Sindhudurg District of Maharashtra.

Discussion

A participant commented that traditional fishworkers should actually support the designation of the Wildlife Sanctuary as this could help in keeping trawlers outside the area, and support better resource access for the small-scale fishing vessels. Sanctuary issues are, however, often driven by politics and not by the logic of protection, it was noted. Fishers from Malvan present at the meeting reiterated that ever since Notifications were issued in 1991 and 1992, communities have been opposing the Sanctuary, as the livelihoods of fisherfolk have not been taken into consideration and few details on plans underway are available to local communities.

PRESENTATION: SOCIETY AND ECOLOGY: BUILDING BRIDGES BETWEEN PEOPLE, LIVELIHOODS AND CONSERVATION (AGATTI, LAKSHADWEEP)

Chair: B.C. Choudhury, Professor, Wildlife Institute of India (WII), Dehradun

Presenter: Deepak Apte, Assistant Director, Bombay Natural History Society (BNHS), Mumbai

Deepak Apte pointed out that Lakshadweep, with a land area of 34 sq km, and a population of 75,000, is rich in biodiversity, has a fragile ecology and is vulnerable to climate change. BNHS, in partnership with local communities, has undertaken a project for conservation of marine resources, especially critically endangered species like the giant clam. He outlined the various activities undertaken over the past three years, including indigenous knowledge resource mapping, consultation and capacity building. The extreme dependence of the communities on natural resources, the geographic remoteness of the area, the homogenous nature of the community, the high literacy rate among the residents, the Shariat law and the matrilineal system, have all helped garner support for conservation. The project's rationale, Apte pointed out, clearly states that conservation is inseparable from the social, economic and political contexts and the needs of local communities. Consultations have been regularly organized with women SHGs, shell collectors, the youth and religious institutions. Community development components have also been initiated as well as training sessions on ecotourism, marine and coastal protected areas, and co-management.

In 2008, the community gave written consent for setting aside 10 sq km of a lagoon area to be designated as a Conservation Reserve under the WLPA. The proposal has gone to the Department of Environment and Forests and the Lakshadweep Administration, accompanied by a management plan developed by the community, with scientific inputs from BNHS. The legal implications of having the area declared as a Conservation Reserve still remain to be explored, concluded Apte.

Discussion

A participant questioned the need for setting up a Conservation Reserve under the WLPA in the area, given that communities, in any case, were protecting the area, drawing on their own norms and social systems. It was further pointed out that the Conservation Reserve category was tailored for corridor protection (to be located between National Parks and/or Sanctuaries). In a legal sense, setting up a Conservation Reserve would imply handing over management powers to the State. While there are provisions for community representation in the Conservation Reserve management committees, the committee itself has only an advisory role, reporting to the Chief Wildlife Warden, it was pointed out. The prohibitions and regulations that apply to a Conservation Reserve are more or less the same as those that apply to a Sanctuary under the WLPA. The pros and cons of taking such a step, even though the community has given its consent, need to be debated, it was suggested. The presenter noted that seeking the declaration of a Conservation Reserve could help secure funding for monitoring purposes, and could help in bringing the Forest Department and the people together.

Another participant asked about the plans for ensuring that the long-term benefits of conservation continue to remain with the local people. In response, it was noted that systematic efforts are being taken to build the local organization that would then continue to monitor benefits from the Conservation Reserve, and to support and revive sustainable traditional fishing practices—a focus that is missing in the younger generation, which appears to prefer government jobs.

PRESENTATION: COMMUNITIES AND MPAs IN ANDAMAN AND NICOBAR ISLANDS: AN OVERVIEW

Chair: B.C. Choudhury, Professor, Wildlife Institute of India (WII), Dehradun

Presenter: Manish Chandi, Research Associate, Andaman and Nicobar Islands Environmental Team (ANET) and Research Affiliate, Nature Conservation Foundation (NCF), Karnataka

The Andaman and Nicobar group of islands is located in the Bay of Bengal. Only 32 of the islands are inhabited. Many of the islands in Andaman come under the PA network as National Parks (such as the Mahatma Gandhi (Marine) National Park and the Rani Jhansi (Marine) National Park), and Wildlife Sanctuaries. Besides these, 1,600 sq km of the Andaman islands are also designated as Tribal Reserves. In the case of Nicobar, all islands are covered under the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation of 1956.

The Regulation also has provisions to include marine areas within 5 km from the high tide line. This is applicable around the Little Andaman island and along about 200 kms of coastline that constitutes the western boundary of the Jarawa Tribal Reserve spread over South and Middle Andaman Islands which have rich fishing grounds. Manish Chandi highlighted the uniqueness of the Nicobarese people and their belief systems, as expressed in their tribal councils, though these are increasingly being influenced by external forces.

Currently, there are nearly 100 PAs (Sanctuaries and National Parks) in the Andaman and Nicobar Islands, and the WII has recommended that the number of PAs be consolidated into a network of 17 or 21, for effective management, which will take time. However, in the meanwhile, efforts have been made to form eco-development committees in selected villages.

In the PAs around the islands, tourism activities—in the form of diving, snorkeling and camping—are not regulated for want of infrastructure. In the case of the Mahatma Gandhi (Marine) National Park, at Wandoor, the local villages are not allowed to use the Park, while large business houses from Port Blair are permitted to operate tourist boats inside the PA. The coral reefs of the area are threatened by tourism and gill-net fishing. The other threats to the area include poaching of turtles, and trawling by vessels from Thailand.

PRESENTATION: EXISTING LEGAL FRAMEWORK FOR PROTECTION: IS THERE NEED FOR A RETHINK?

Chair: Venkatesh Salagrama, Integrated Coastal Management (ICM)

Presenter: Chandrika Sharma, Executive Secretary, ICSF

Chandrika Sharma emphasized the need for a holistic and comprehensive management framework for protecting coastal and marine resources, drawing on international and national legal and policy frameworks. There is need to put in place comprehensive conservation and management measures for the maintenance of living resources in the EEZ and to adopt a holistic, approach to conservation, consistent with India's obligations under the United Nations Convention on the Law of the Sea (UNCLOS) and the Convention on Biological Diversity (CBD).

There is also need to draw on existing policy provisions. The National Biodiversity Action Plan (2008), for example, calls for a holistic approach to conservation, enhancement and sustainable utilization of biodiversity, and for providing access to bio-resources for all sections of society, in particular the economically poor, for ensuring intra- and inter-generational equity. The National Wildlife Action Plan (2002-2016) calls for revision of fishing laws and their effective implementation. The National Marine Fishing Policy (2004) aims to ensure the socioeconomic security of artisanal fishermen whose livelihoods depend solely on this vocation, and to ensure sustainable development of marine fisheries, with due consideration for ecological integrity and biodiversity.

A holistic approach and framework calls for greater collaboration between the agencies responsible for fisheries and for the environment, Sharma stressed. Such a framework should (i) effectively address both fishery and non-fishery management concerns; and (ii) secure the preferential access rights of communities to resources and their rights to participate in management. From a fisheries perspective, the Ministry of Agriculture needs to take certain steps. It is essential to shift the focus from production to management. There is need to develop an environmental action plan for fisheries, setting out measures that can be used for effective management; PAs can be identified as one of the several available tools, as suggested by the working group on fisheries for the Eleventh Five Year Plan. Artisanal zones need to be seen as one form of PAs (given that the zone enjoys a higher level of protection than its surroundings). Fisheries line agencies need to strengthen co-management approaches, and to develop a policy paper on this, drawing on provisions in the Panchayati Raj Act, the Forest Rights Act, etc. Sharma also highlighted the need for an Act to regulate fishing in the EEZ, and to revise State-level MFRAs. From an environmental perspective, the MoEF needs to put in place a framework for effective regulation of non-fisheries factors affecting the coastal and marine environment.

Discussion

A participant commented that at present, the Maritime Zones of India Act has provisions only for controlling entry of foreign vessels. A legislation to regulate fishing in the EEZ is currently lacking and is under preparation. There is also a need to reduce policy inconsistencies to achieve better fisheries management. The 2004 comprehensive marine fishing policy, for example, states that 50 per cent of traditional craft should be converted to motorized craft, while a 2000 report, presented to the Ministry of Agriculture, proposes freezing the number of motorized and mechanized vessels. There continues to be an emphasis on increasing fish production, as in the Eleventh Five year Plan, though there is urgent need to change the focus from production to better management.

PRESENTATION: MARINE PROTECTED AREAS IN INDIA: SOME LEGAL CONCERNS

Chair: Venkatesh Salagrama, *Integrated Coastal Management (ICM)*

Presenter: Sanjay Upadhyay, *Advocate, Supreme Court, and Managing Partner, Enviro-Legal Defense Firm*

Sanjay Upadhyay started by clarifying that MPAs are not a uniform category. They include National Parks and Sanctuaries, with National Parks being the most restrictive PA category. Within Sanctuaries, there is a pre-1991 and a post-1991 context. Pre-1991 Sanctuaries could be directly notified and subsequently rights could be settled; in other words, settlement of rights was not a prerequisite. However, any Sanctuary declared or notified post-1991 is required to go through the process of settlement of rights before the final Notification can be issued. Other PA categories are the Conservation Reserves and the Community Reserves. A Conservation Reserve can be declared on land or territorial waters under the control of the State. In the case of Community Reserves, the land has to be owned by private individuals or the community.

Recent developments under the FRA and the 2006 Amendments to the WLPA may also bring about changes. There may be more emphasis on declaring Critical Wildlife Habitats under the FRA, on the one hand, and Critical Tiger Habitats under the WLPA, on the other. There is a distinction between the two—Critical Wildlife Habitats are necessarily created out of National Parks and Sanctuaries, whereas Critical Tiger Habitats may also include other lands, such as Reserve Forests, revenue lands and private lands. There is yet another category under the FRA, called the Community Forest Resource (CFR), which, while not necessarily a PA category, is also likely to emerge as important. Therefore, while talking of marine and coastal protected areas, we need to be very clear about what category of PA is being referred to, in legal terms.

In terms of the five marine and coastal protected areas from mainland India being discussed at the workshop, it is important to be clear about the status of each. In the case of the Gulf of Kutch, for example, two preliminary Notifications have been issued under Section 21 of the WLPA, implying that it is technically still not a Sanctuary. This means that there is still a window of opportunity to present claims for incorporation. In the Gulf of Mannar too, the process is still open. The proclamation Notification has been issued. There are timelines such as the requirement to receive claim notices within 60 days, but technically speaking, the process is still open for concerns to be addressed during the finalization of the National Park. In the case of Malvan, in terms of legal status, it is a Sanctuary. There is a preliminary Notification as well as a proclamation Notification. For Gahirmatha, the Notification has been issued under Section 26A of the WLPA. This basically means that since the declared areas are Reserve Forest areas, there is no need for a settlement process, as it is assumed that rights have already been settled in Reserve Forest areas. Whether rights have been settled in the proper manner is another question. And, finally, in the case of the Sundarbans, the final Notification has already been issued.

There is also a need to ponder whether creating a marine and coastal protected area is the only option available, or whether there are other options that can address the concerns of both livelihoods and conservation. Upadhyay drew attention to some other options that need to be explored. For example, declaring “designated areas” under the Maritime Zones of India Act, “selected waters” and “private waters” under the Indian Fisheries Act, “prohibited zones” under the Merchant Shipping Act, and “prohibited areas” and “special areas” under OILPOL and MARPOL, respectively. In the 1990s, the need for an “ocean regulation zone” was being debated in India. It may yet be relevant to seek such a category. We also need to explore whether options such as “heritage sites” under the Biodiversity Act can be extended to such areas. There are also possibilities of declaring seasonal and area closures under the MFRAs, he pointed out.

Upadhyay also stressed the need to elaborate, in operational terms, what is meant by the reference in the WLPA to “protect the occupational interests of fishermen”. In this context, it is important to understand the roles of the District Collector and the Chief Naval Hydrographer in the settlement of rights. The Rules under the WLPA need to operationalize provisions to protect the occupational interests of fishermen. There are also provisions for “innocent passage” that need to be operationalized and applied, to prevent the arrest of those passing through, but not fishing in, Sanctuary waters.

Upadhyay also clarified that, despite a common perception that Fisheries Departments are not represented in PA management, the Directors of Fisheries are members of the State Board of Wild Life, which is now a statutory (not advisory) body whose recommendations are binding. Fisheries Directors have the responsibility of ensuring that fisheries interests are incorporated in designating and managing PAs.

There is urgent need for information, understandable to even lay persons and community residents, on why a Sanctuary is being declared, what are the criteria being used to demarcate boundaries, and so on. There is also need to understand the roles, powers and responsibilities of various agencies in the coastal and marine space. For example, there are 10 or 11 ministries with jurisdiction over coastal and marine areas. At the same time, there are overlapping legal regimes, with more than 42 pieces of legislation relevant to the coastal and marine context. Additionally, there are international legal instruments that India is signatory to. With respect to international law, however, this is enforceable only to the extent that the provisions are reflected in national legislation. We need to reflect on how international legislation needs to be adapted to the national context, said Upadhyay.

Upadhyay also briefly touched upon new management initiatives, such as the Biodiversity Conservation and Rural Livelihoods Improvement Project (BCRLIP), cautioning against haste in dropping earlier initiatives such as eco-development, and adopting new approaches that are not yet fully understood or tested, including from a legal perspective.

Attention was also drawn to the issue of whether, in legal terms, fish is a forest produce or an animal, and the implications of such a distinction. Fish is included in the definition of animal in the WLPA. In an earlier court judgment (1981), however, fish was considered a forest produce. The implications of defining fish as a forest produce are important since that can trigger off an entire set of other legal instruments—transit permits, forest produce laws, minor forest produce and the way it is linked to forest produce, and so on— that define access and regulate use of resources.

In his final comment, Upadhyay pointed out that while the FRA does recognize customary rights and practices, it is applicable only to forest land and not to seascapes. There is need to explore whether the CFR concept can provide a spatial argument to include customary rights to coastal resources.

Discussion

One participant queried the usefulness of designating areas as ‘ecologically sensitive’, under the Environment Protection Act, 1986, particularly in a marine environment, as it appears to be more flexible as a category. It was clarified that, while this category could be useful, it is still pending clarification, and that the matter is *sub judice* in the Goa Foundation case.

Another participant asked about the procedure to revise existing management plans of PAs; for example, in the case of Gahirmatha, to allow for use of low-impact, sustainable fishing gear, from non-motorized vessels. There is a need to review and re-examine existing management plans of PAs on a periodic basis, and to revise existing provisions, if necessary. It was informed by the forest official from Orissa that a management plan is a document that is approved by the Forest Department; it does not need approval from any other agency or authority. A management plan can also be revisited, and efforts will be made to do this in the case of Gahirmatha, to take on board some of the proposals

from the OTFWU presentation earlier. However, whether fishing with low-impact, sustainable gear can be permitted will depend on the response of the Supreme Court to the petition filed by the Orissa government to allow people residing in a Sanctuary to collect minor forest produce.

Several participants noted that the conflict between conservation and livelihoods is relatively minor—the larger fight is really against environmentally destructive development, particularly in a post-liberalization context. This is the much larger battle, which has to be systematically fought, through legal as well as political means.

The issue of ‘participation’ was discussed. A participant noted that the State becomes the custodian of the resource when a PA is created. The *gram sabha* or community has no real role in management, and cannot, for example, say no to activities such as mining, which are granted permission within the National Park or Sanctuary. ‘Participation’ thus basically becomes a passive word, as people do not have the right to say no, even as concepts like people’s participation in PA management are being promoted as targets. People’s struggles against destructive development thus tend to be more successful outside of PAs, as, for example, against SEZs. It is imperative that such issues of participation are closely examined, with a view to strengthening genuine participatory provisions in PA legislation. The recognition of hamlet-level institutions in the Forest Rights Act is important—in a coastal and marine protected area context, it is important to recognize the hamlet-level institutions in fishing communities as well as the much larger *gram sabhas*.

Attention was drawn to some positive developments and spaces for genuine participation that are being created of late. A recent judgement from the Andhra Pradesh High Court, for example, interpreted ‘consultation’ to mean ‘consent’, under the Panchayat (Extension to Schedule Areas) Act, 1996. Spaces for communities to say ‘no’ to certain developments are opening up. Provisions for Critical Wildlife Habitats in the FRA are also noteworthy. It is specifically stated that land cannot be diverted for any other purpose if people are not allowed to use it for living purposes. Further, under the FRA, there are provisions for prior informed consent from the *gram sabha*. We need to take note of such spaces for people’s participation that are opening up, and use them. We also need to document legal violations, and challenge destructive developments, on the basis of clear legal grounds. This may be a more effective strategy. Great effort is sometimes spent on documenting factual violations (for example, that filling up a creek is harmful to its ecology, on which it may be difficult to get a scientific consensus), which only serve to prolong the debate.

It was suggested that there is need for demystifying information on all legal instruments, and the rules and regulations under them. The OMRCC, for example, has produced such information for the Gahirmatha Sanctuary, in English and Oriya. Such information is useful for communities as well as for implementing and enforcement officials.

PRESENTATION: FISHING COMMUNITY INSTITUTIONS: ROLE IN CONSERVING MARINE LIVING RESOURCES

Presenter: V. Vivekanandan, Adviser, South Indian Federation of Fishermen Societies (SIFFS)

Chair: Sanjiv Gopal, Campaign Manager-Oceans, Greenpeace India

V. Vivekanandan provided an introduction to institutions existing within fishing communities. Fishing communities, he noted, are outliers to the caste-based agrarian production system. They tend to be socially homogenous, with self-governing systems at the hamlet level and sometimes even at higher levels. Women are generally not part of these traditional governance systems. He provided examples of several traditional institutions, such as the *kadakodi* system of northern Kerala, and that of the *Pattanavars* of the Tamil Nadu/Andhra Pradesh coast, who have a federated structure of governance. Communities have, over time, put in place rules to regulate fishing activities and to reduce conflict, he noted. Thus, in Kanyakumari, Tamil Nadu, for example, rules governing the use of marine space for placing traps are in place, and in Vizhinjam, Kerala, timings for landing of fish by local and outside fishers have been fixed. Though these systems have been in place, often for generations, they have changed over time.

In recent times, following mechanization and other changes, several new institutional forms have emerged. In Rameswaram, Tamil Nadu, boatowners' associations have been formed that run parallel to the traditional system. In Maharashtra, and in places like Nagapattinam, Tamil Nadu, the boatowners' associations remain a part of the traditional *panchayats* or village-level governance institutions. Besides these, there are also trade unions such as the National Fishworkers' Forum (NFF) that champion the issues of the fishing community. These may be independent or affiliated to various political parties. There are also State-sponsored networks of co-operatives that channel welfare measures and subsidies, as well as independent or private co-operative networks like the South Indian Federation of Fishermen Societies (SIFFS). And finally, women's SHGs and federations and trade associations of vendors also exist.

Initiatives for self-regulation have been undertaken. There was, for example, a ban on mechanized fishing at night at Munambam Harbour in Ernakulam District, Kerala, promoted by the Green Seas movement, which is not in practice any longer. In Royapuram, Chennai, there is a ban on entry of new fishing vessels in the harbour. The *parava* fishermen in some parishes in Tamil Nadu excommunicate fishers who join the trawl sector. In some parts of Kerala, crew is employed on a rotational basis, with provisions for sharing of income with those who stay back on shore.

Many traditional self-governance and management systems have weakened due to changes in technology and the entry of outsiders into the fishery. The small-scale sector has itself changed to respond to these developments, and there is now overcapacity even in the small-scale sector.

Vivekanandan highlighted the need for building a structure of management that can cut across social and administrative borders to address issues of resource management and conservation. While some forms of management can be territorially localized, the need is for a co-management approach that can be applied across the coast. He pointed out that it is not practical to re-organize communities along the lines of *panchayat raj* institutions; instead, local traditional structures that are already embedded with social capital offer the best building blocks for a new system.

Discussion

One of the participants said that with changing craft and gear, the fast pace of seawall construction along the coast (making it difficult to use beach-landing craft) and the shift towards a harbour-based fishery, villages closer to the harbours now wield power over smaller villages located far from harbours. Such changes are likely to have an impact on traditional self-governance systems. It was noted that the changes from decentralized to centralized landings also has implications for gender relations, as women may lose access to fish in harbour-based operations.

Another participant noted the potential of traditional systems for conflict resolution, and also for addressing resource management issues, as in MPA management. There is need for caution, however, in using co-management frameworks in the absence of a level playing field for the various stakeholders. There is a danger of using terms like ‘co-management’ that get institutionalized and become problematic. It was further observed that local management regimes are not sufficient in a marine context where resources are interlinked; management plans for the larger context are essential.

Some of the participants pointed out that the documentation on traditional systems of community management along the Indian coastline is not easily available in the public domain, and suggested the need to make such information more widely available.

VENKATESH SALAGRAMA/ICM



A gillnet being dried in Orissa. Changes in fishing technology have weakened many traditional self-governance and management systems in Indian fishing villages

GROUP DISCUSSIONS

Participants were divided into three language- and region-based groups, namely, (i) Tamil Nadu; (ii) Maharashtra and Gujarat; and (iii) West Bengal and Orissa. Three questions were given to the groups for discussion:

- (a) What are the benefits of marine and coastal protected areas?
- (b) How can these benefits be enhanced?
- (c) What are the possible steps and strategies that can be taken for the future?

PRESENTATION OF GROUP DISCUSSION REPORTS: PROPOSALS FOR LIVELIHOOD-SENSITIVE CONSERVATION

Chairs: Nilanjana Biswas, Independent Researcher, and Pankaj Sekhsaria, Member, Kalpavriksh

Group Discussion Presentation: Tamil Nadu

Group representative: Sanjiv Gopal, Campaign Manager Oceans, Greenpeace India

(a) What are the benefits of MPAs?

The discussion revolved around the experiences of loss of livelihoods, and the social impacts of marine and coastal protected areas. Though the group members felt that there have been no benefits from the existing PAs, there was consensus that MPAs are necessary. The group felt that the closure of areas did not take into account local realities and livelihood issues. Marine and coastal protected areas, the group felt, should be seen as just one of the several tools for management and conservation of natural resources.

(b) How can these benefits be enhanced?

The group felt that it is important to effectively integrate traditional knowledge systems with the conventional science that currently feeds into PA processes. It is important to prevent activities that contribute to pollution in the Gulf of Mannar region, especially development projects that have both direct and indirect impacts on the PA. Existing laws need to be enforced effectively, especially those that relate to preventing the use of destructive fishing techniques like trawling. Benefits can be further enhanced by involving and training fishers and equipping them for alternative livelihoods, said the group.

(c) What are the possible steps and strategies that can be taken for the future?

One possible step is to modify the legal framework to clearly define and recognize the need to include traditional fishing institutions in management. The existing definition of *gram sabhas* and *gram panchayats* should be expanded so that local institutions, such as fishing hamlets, are recognized. The PA co-management process should include bottom-up management committees, starting with hamlet-level committees. Existing management measures need to be reviewed, and a mandatory, prior informed consent process should be put in place, with communities having complete access to information. The group further recommended full and proper consultation with communities, so that their proposals and suggestions can be incorporated into policy decisions.

Group Discussion Presentation: West Coast/ Gujarat and Maharashtra

Group representative: M.H.S. Sheikh, Brackishwater Research Centre, Surat

(a) What are the benefits of MPAs?

The group felt that there have been no proven benefits from the existing marine and coastal protected areas, also because of the fact that harmful effects of industries near the PA sites have not been taken into account or addressed, as, for example, near the Gulf of Kutch National Park. While participants acknowledged the potential benefits from PAs, especially the possible increase in biodiversity and fish catch, they also pointed out that restrictions on fishing hamper their sources of livelihood, as well as the traditional and customary rights of fishing communities. Some of the participants recognized that declaring the Gulf of Kutch as a National Park has been a useful step, helping protect the sensitive habitat from destructive processes such as pollution and trawling, at least to some extent. However, the steps taken are inadequate and the Gulf continues to be threatened by developmental pressures, the group noted.

(b) How can these benefits be enhanced?

The group stressed that if communities are to benefit, consultation with communities must be ensured at all stages of PA designation, formulation, implementation, review and evaluation. It is important to ensure complete transparency. At the same time, the focus of restrictions should not be only on fishing activities—rather, all activities that contribute to pollution and degradation of the PA habitat should be regulated. In a marine context, this should also include regulation of activities taking place in adjacent areas, which have impacts on the ecological integrity of the MPA itself. Existing MFRA regulations should be effectively implemented. The group proposed that alternative approaches to management, such as community-based resource management, ought to be also explored. Moreover, benefits from activities like tourism taken up near PA sites, should be equitably shared with fishers.

(c) What are the possible steps and strategies that can be taken for the future?

The group reiterated the need for informed discussion with communities prior to making conservation decisions. The need for debating and carefully choosing the terms used, such as ‘MPA’, was also noted. It is important to document the impact of industries on PAs, while identifying the conditions under which such PAs can prove beneficial. Scientific reviews and evaluation of PAs should be undertaken using sound methodologies. While free access to fishers should be ensured in the existing Buffer Areas of PAs, future management plans should explore options for a ‘dynamic’ buffer zone. At present, MPAs are managed by officers from the Indian Forest Service; experts on marine and fisheries issues should be charged with the responsibility of managing these areas, the group felt.

Group Discussion Presentation: East Coast/Orissa and West Bengal

Group representative: *Pranaya Kumar Parida, Action for Food Production (AFPRO)*

(a) What are the benefits of MPAs?

The group felt that the ecological benefits from MPAs have, so far, been intangible, while the social costs that have been borne by local communities have been significant and tangible. MPAs are not viable as long as fishing communities see them as a threat to their lives and livelihoods.

(b) How can these benefits be enhanced?

The benefits of MPAs can be enhanced by transforming marine and coastal protected areas into sites that are non-threatening for the lives and livelihoods of fishing communities, and by taking a holistic approach that covers all coastal and marine areas, with specific emphasis on sensitive areas.

(c) What are the possible steps and strategies that can be taken for the future?

It is important that adequate compensation for livelihoods lost is provided to all affected communities, the group stressed. There is also a need to move away from an emphasis on no-access zones to limited- or restricted-access zones. The Department of Fisheries should play a proactive role in PA decision-making processes, and communities need to be involved at all stages of PA designation, implementation and review, the group concluded.

Discussion

Participants noted the need to address issues of pollution in the context of marine and coastal protected areas. They also suggested that the Fisheries Departments should have a greater role, particularly in documenting aquatic diversity, habitats and community institutions and practices.

Several participants pointed out that while major players remain unaffected by PA implementation, it is the small-scale, subsistence fishers who have to bear the costs. There is need to “generate our own data and document the experience of PAs” to highlight such issues, it was noted. There is also need for sound scientific reviews of marine and coastal protected areas by competent authorities.

Concluding the session, the chairs noted that while all the group presentations highlighted that some form of protection is needed for coastal and marine resources, on the whole, marine and coastal protected areas were seen to have had no beneficial impacts. All presentations highlighted the need for community participation, good governance, transparency and accountability, and the need for reliable socioeconomic, scientific and ecological research and data.

PANEL DISCUSSION: THE WAY FORWARD

Chair: V. Vivekanandan, Adviser, SIFFS

V. Vivekanandan said that the diversity of perspectives and participants was well reflected in the group discussions, adding that the presence of the MoEF could have made the entire experience more comprehensive. Six panelists presented their views on the way forward for marine and coastal protected areas in India.

Panelist: B.C. Choudhury, Professor, WII

B. C. Choudhury traced the history of terrestrial PAs to game reserves, where certain use privileges were permitted. The origin of the marine and coastal protected area concept in India, as no-take zones, can be traced back to a Central Marine Fisheries Research Institute (CMFRI) scientist, he said. The responsibility for implementation of marine and coastal protected areas lies with the Forest Department, which has long been linked with managing protected species under the WLPA. Their expertise, however, is not necessarily related to managing marine ecosystems, for which appropriate training is needed.

Currently, the management of existing MPAs is poor. Resource extraction continues in practice, accompanied by cases of conflicts. There is a need for fishers and managers to sit together to review management approaches, and to define practical win-win strategies, said Choudhury.

He pointed out that the International Union for Conservation of Nature (IUCN) has developed a framework for reviewing the management effectiveness of marine and coastal protected areas, and suggested that the MoA and the MoEF should organize the next level of consultations. He also informed the participants that the National Board for Wildlife has set up a marine conservation subcommittee and that the WII has been given the responsibility of determining whether more species recovery plans and marine and coastal protected areas are required.

Choudhury said that marine and coastal protected area managers should identify the ecological goods and services where renewable resources exist, document biodiversity-rich areas, and set aside zones to avoid the pressures of industrial development. Management approaches should take into account diverse views. Establishing marine and coastal protected areas is not an end in itself—there are other ways by which marine and coastal areas can be protected. Traditional resource users, who have been ignored, need to be brought into co-management initiatives. There is also need for more science-based assessments and studies. It is equally important for State governments to place management plans in the public domain, to ensure greater transparency and accountability.

Choudhury pointed out that this workshop was probably the first review of the marine and coastal protected area scenario in India. He suggested that the outcome of the workshop could lay the foundation for further work.

Panelist: Harekrishna Debnath, Chairperson, NFF

Harekrishna Debnath provided a brief outline of the various struggles of NFF, from the agitation for legislation to regulate trawlers in the 1970s and 1980s, to the 1989 fishers' march to "Protect Waters, Protect Life". He drew attention to the latest struggle by the fishers against the draft Coastal Management Zone (CMZ) Notification of 2008, brought out by the MoEF, to replace the Coastal Regulation Zone (CRZ) Notification of 1991. He highlighted that this new draft Notification will have a long-term impact on fishworkers, fish consumers and the environment. He stressed that the entire society must bear the cost of conservation, as the benefits are shared by all. It is important to compensate fishers who lose their livelihoods to protect a species, and the people living around the PA should be involved in conservation, he said.

Debnath highlighted the need to approach the marine system from a comprehensive and integrated perspective. The focus should be on regulating the activities of the larger players within the fisheries and non-fisheries sectors. The five-km inshore zone should be seen as a PA, where trawling and other destructive fishing practices are prohibited. There is a need for better communication between administrators and fishers. While fishers are convinced of the need for conservation, it is important to assess context-specific issues before marine and coastal protected area models are replicated. It is important to collaborate and chart a way forward that includes fishers, both men and women, and organizations, governments, administrators and scientists, he said.

Panelist: Kartik Shanker, Assistant Professor, Centre for Ecological Sciences, IISc, and Founder Trustee, Dakshin Foundation

Referring to philosophical issues in conservation and the concept of 'use', Kartik Shanker pointed out that the marine and coastal protected area framework in India does not have provisions for 'use' of resources, as it is based on a terrestrial PA framework. In the case of marine ecosystems, the philosophy of 'use' of resources through fishing has always been accepted, and this needs to be reflected in the MPA concept. He drew attention to frameworks for regulating fisheries and coastal activities, such as the MFRA and the CRZ, that restrict activities but do not exclude people. It is better to build upon such frameworks for conservation, he said. Marine and coastal protected areas should be seen as one way to protect the marine habitat for sustainable use by a wide range of users. This will make the concept more acceptable to fishing communities.

It is the process of setting up marine and coastal protected areas that is important. It is not just about getting people together; there is also the need to address the power differences between stakeholders. Shanker said that these power differences get communicated and incorporated into negotiations that are seemingly participatory. However, some of the proposals that communities agree to may be different had they been allowed to develop them on their own, from scratch. Shanker drew attention to some of the initiatives taken by fishing communities in Kerala for turtle conservation, without any external intervention.

Effective participation can be enhanced through empowerment, and the channels to enhance empowerment can be through better education and health. As an academic, said Shanker, while he shared the view that biological and ecological studies are necessary, science can only contribute to knowledge and information, based on which different decisions are to be made. He also addressed the issue of communication and co-ordination among different agencies to arrive at a consensus in the decision-making process, as often the same information gets interpreted differently when there is no proper partnership between these agencies.

Panelist: Nalini Nayak, Member, ICSF

Emphasizing that marine and coastal protected areas are not the only tool for conservation, Nalini Nayak mentioned that conservation itself is important from several points of view, including from the livelihood perspective of fishworkers. The need is to focus on managing ecosystems as a whole, as waters are interlinked, and numerous communities depend on these ecosystems. Nayak emphasized the need for effective implementation of MFRAs, and training of Fisheries Department officials in ecosystem management and co-management. High-level committees are needed where different departments and ministries are involved in the decision-making process. It is also important to inform Members of Parliament and other political groups about various aspects of marine and coastal protected area management, so as to devise a workable co-management framework, taking into account the Indian legal and political context.

Nayak said that women need to be involved in the efforts to balance conservation and livelihoods, as they play an important role in marketing and other allied fishing activities, but are currently poorly represented in decisionmaking. It is important to recognize that nurture is an important component of conservation, and women are an important part of this philosophy, as they contribute to it. Women must be members of co-management committees, with substantial representation so that their voices are heard. An important way to reduce pressure on fish resources is through value addition in the post-harvest sector, especially with proper market linkages. In this context, investing in the post-harvest activities undertaken by women should be considered, Nayak said.

Panelist: Madhumita Mukherjee, Joint Director of Fisheries, Department of Fisheries, Government of West Bengal

Madhumita Mukherjee said that the Fisheries Departments should be seen as partners in the marine and coastal protected area management process. It is important to document if catches have actually increased after the implementation of marine and coastal protected areas, through monitoring and analysis of catch data. This should be done by the Fisheries Department. Mukherjee stressed that any management framework should be developed only after taking into account the unique regional and species specificities, especially while designating MPAs. An important focus area for alternative livelihoods should be improving market linkages for fish and fish produce. Mukherjee said that there is a need to explore other options, such as producing drugs from the sea, whose benefits could be shared with the communities.

Panelist: Bijay Ketan Patnaik, Principal Chief Conservator of Forests (Wildlife) and Chief Wildlife Warden, Forest and Environment Department, Government of Orissa

Bijay Ketan Patnaik started by commenting on the group presentations in the previous session, which had unanimously indicated that marine and coastal protected areas have had no perceived benefits. He said that these observations were probably right, in that the PAs were created with certain objectives, in the first place. In the case of Gahirmatha, for example, the objective is to protect turtles, and, in the case of some PAs in the Andaman and Nicobar islands and Lakshadweep, the objective is to protect coral reefs.

Benefits, he pointed out, can be tangible or intangible, with intangible benefits including ecological improvement/environmental development. Tangible benefits would include those that directly affect communities, whether in terms of higher or lower fish catches. Where fishermen are denied access to fishing grounds, their immediate reaction is that they see no benefit from the PA. It can be argued that closed areas serve as a nursery and breeding area, and that fish production in the surrounding areas increases, but there is no hard data to support this proposition. It is thus important to quantify the tangible benefits, and, using a comprehensive socioeconomic database, to monitor changes in the fish catch and the incomes of fishing communities in the area. Where it is clear that livelihoods are being negatively affected, adequate compensation should be given to communities.

It is also important that periodic evaluations of marine and coastal protected areas are undertaken to determine whether the objectives with which they were set up have been achieved. Of course, the evaluations can only be against the initial objectives of the PA, which may not have included enhancing livelihood security of the local populations, in the first place. In such a situation, the objectives may need to be modified.

In the current legal framework for forest areas, nothing can be extracted unless it is approved by law. This ban on extraction is even more stringent in the case of PAs (under the WLPA). There are no provisions for any extractive activities. Thus, if there is a proposal to allow any extractive activity in

a PA, and to include it in the management plan, it is necessary to seek approval from the CEC and the Supreme Court of India. These bodies may decide that the management plans must also be approved by the Central government and the State government.

Responding to the earlier discussion on whether the FRA could also apply to traditional (non-tribal) coastal communities in coastal areas, Patnaik felt that this is unlikely. Even if it does apply, there will be the requirement to prove that the communities in question have been residing in the area for three generations (about 75 years). On the issue of the Integrated Coastal Zone Management Plan, the rights of all stakeholders need to be considered in its preparation, he stressed. If fishing communities consider that their interests are not being taken into consideration, the State Fisheries Department can make a strong case for ensuring the integration of the livelihood issues of fishing communities into coastal zone planning.

Patnaik observed that there is now wide acceptance of the bottom-up, consultative approach, and that it is important that consultative processes are started at the beginning of any effort to declare a PA. There is also an acceptance that conservation is needed. In such a context, it is important to consider the usefulness of declaring Community Reserves and Conservation Reserves. Legal issues related to these categories need to be explored to ensure that the rights of local people and the objective of conservation, can be both accommodated.

General Comments and Suggestions on the Way Forward

One of the participants recommended the need to consider the concept of 'marine conservation areas' as opposed to marine and coastal protected areas, with specific claims and rights of communities, with the focus of the management regime being on conservation rather than protection. It was observed that legally, rights are non-negotiable, and hence different from claims in PAs. Mainland communities are increasingly aware of their rights, while communities in the islands do not have much information or experience on these issues, it was noted. The importance of following up on the recommendations and outcome of the workshop, was highlighted.



A scene from the Sundarbans. Only by improving market linkages for fish and fish produce can fishing communities hope to benefit from alternative livelihood options

CONCLUDING SESSION

Chair: Nalini Nayak, Member, ICSF

Concluding Address: Suresh Prabhu, Member of Parliament and Former Union Minister for Power, Environment and Forests, Government of India

Addressing the participants, Suresh Prabhu referred to the workshop as *samudra manthan* and hoped that the two-day discussion would lead to a path that is more sustainable. It is time to focus on conserving nature, he said, at a time when the world is facing major threats, including climate change. It is also time to re-evaluate our strategies for conservation. There is no point in introducing new legislation and regulations, if they are not implemented. The focus should now be on implementation for better conservation and management.

Fishers' livelihoods are closely linked to the health of resources in the sea; they have vested interests in conserving aquatic resources. Fishers understand the coast much better, and they can be better implementers and regulators. There is need to consider a new model of conservation, along the lines of co-management, which integrates the traditional knowledge of fishers into a model of sustainable conservation. Prabhu highlighted the need for sensitization of key decisionmakers, especially the Members of Parliament. There is also a need for proper governance systems, with clear provisions for participation.

Prabhu reiterated that conservation of coastal and marine resources is important. It is not a matter of whether conservation of turtles should take precedence over welfare of human beings. There is need for a holistic approach. Oceans are important components of biodiversity; they are also essential to maintain global temperatures and in addressing climate change. Prabhu also highlighted the need to look at the impact of growing populations on the use of natural resources.

The session ended with a vote of thanks proposed by Nalini Nayak.

DISHA

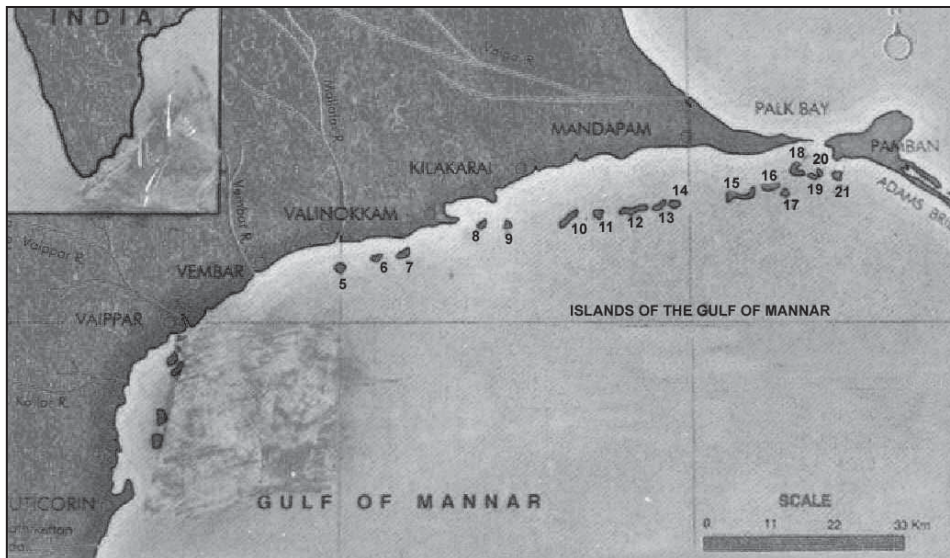


A fisherman in the Sunderbans, West Bengal. A holistic approach to the conservation of coastal and marine resources is important

Appendix I

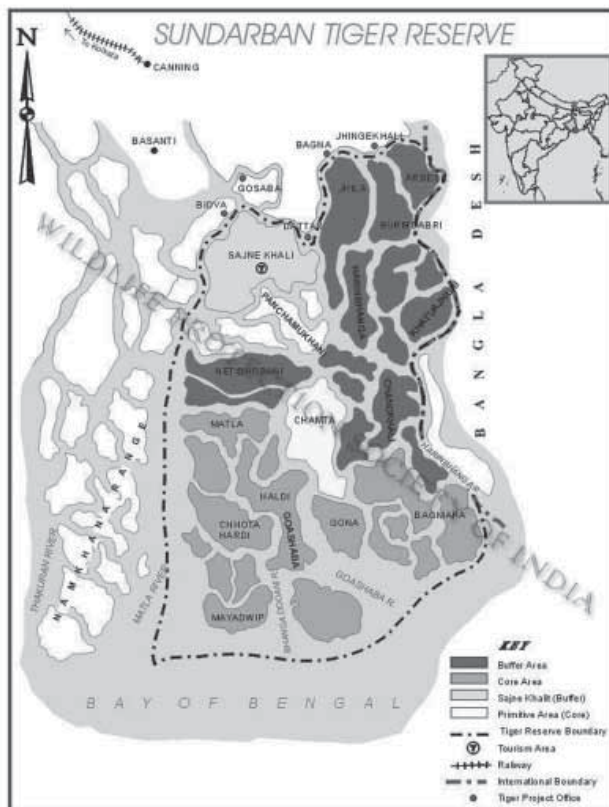
MAPS OF MPAs IN INDIA

Gulf of Mannar National Park and Biosphere Reserve



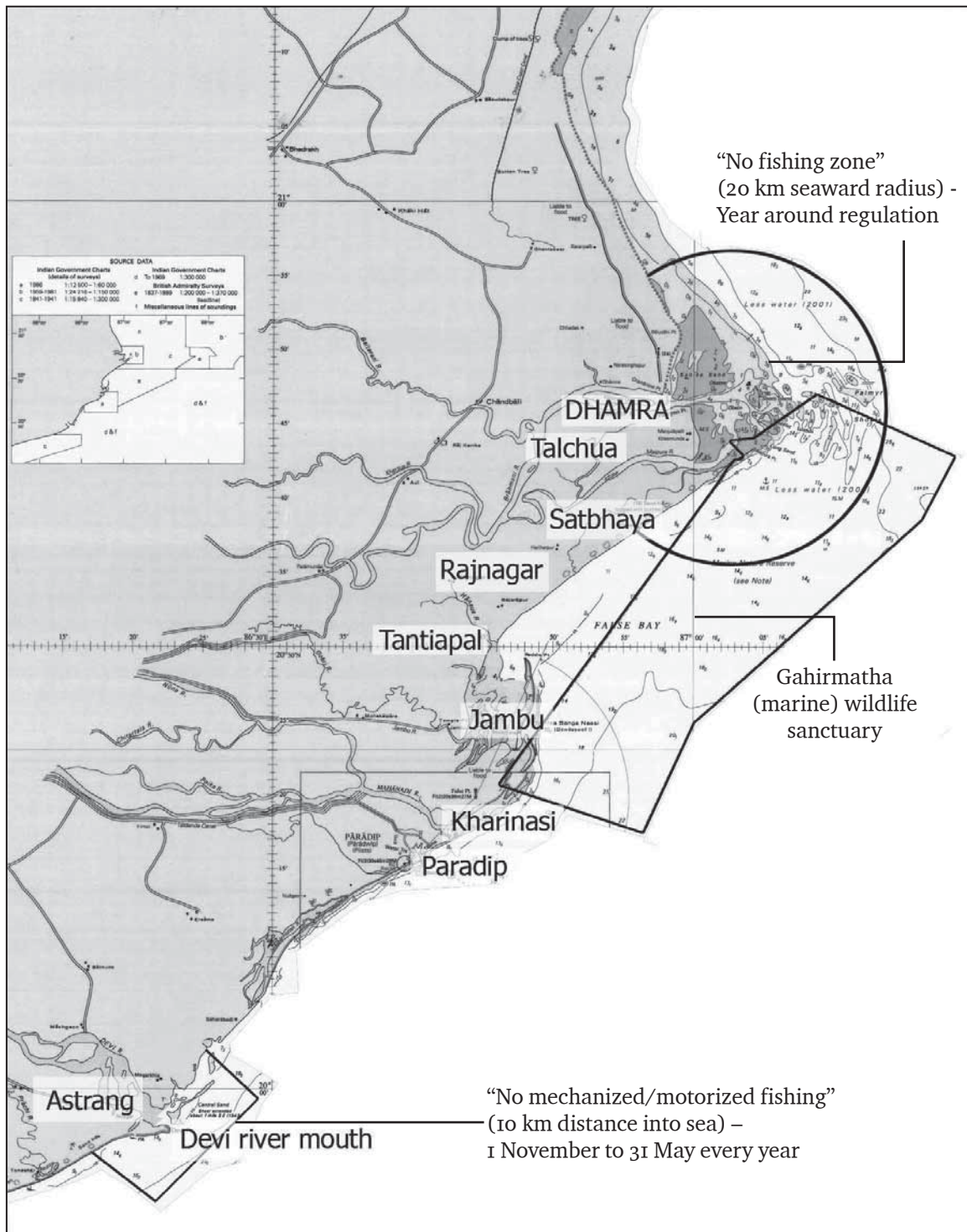
Source: www.ramnad.tn.nic.in

Sundarban Tiger Reserve



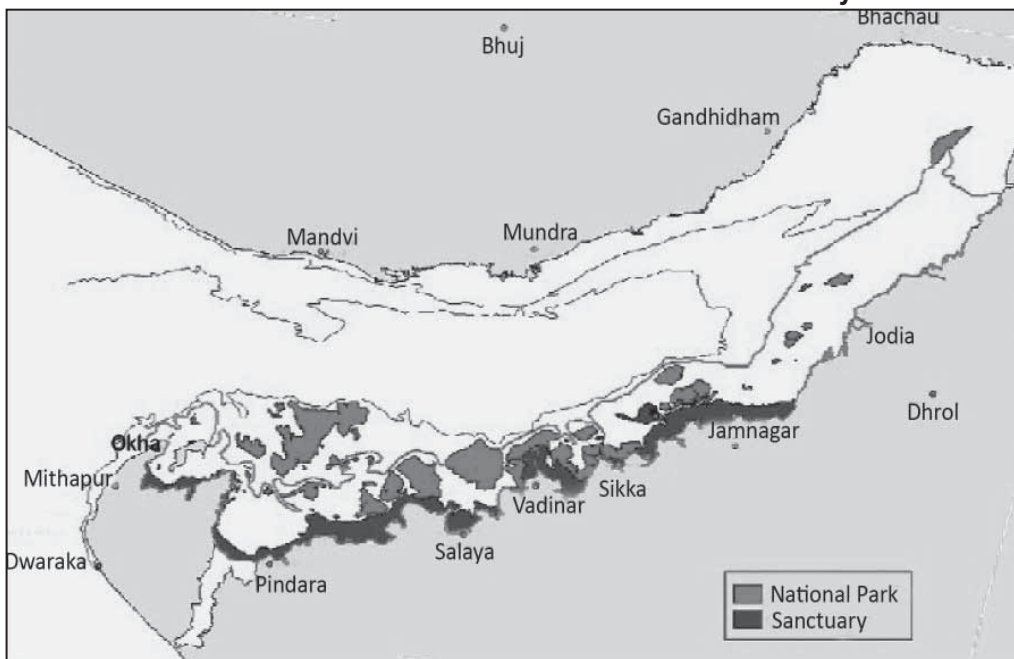
Source: Wildlife Protection Society of India

Gahirmatha (Marine) Wildlife Sanctuary



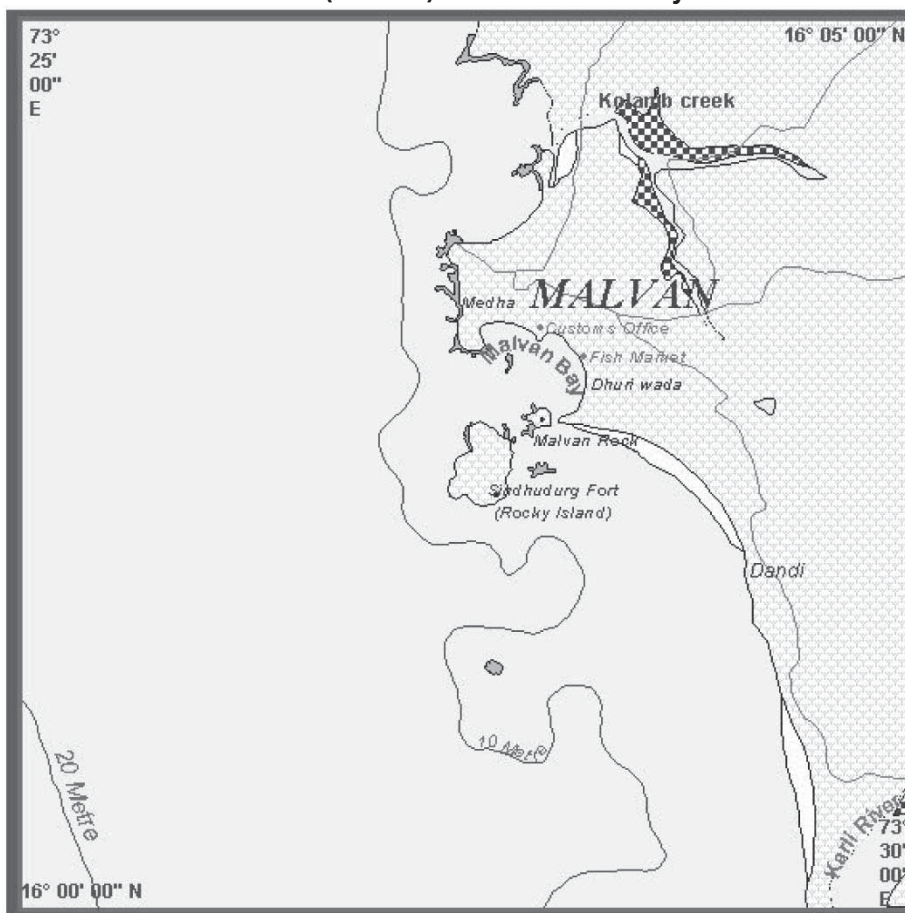
Source: Naval Hydrographic Map from Puri to Sandheads

Gulf of Kutch National Park and Wildlife Sanctuary



Source: DOD-ICMAM Report, 2002

Malvan (Marine) Wildlife Sanctuary



Source: ICMAM, DOC Report, 2001

Fishermen at the Jharkali auction centre, Sundarbans, West Bengal



Appendix II

Programme

DAY 1: 21 JANUARY (WEDNESDAY)	
0900 – 0930 hrs	REGISTRATION AND TEA
0930 – 1000 hrs	<p><i>Chair: Nalini Nayak, Member, ICSF</i></p> <p>Inaugural Session Introduction to workshop <i>Chandrika Sharma, Executive Secretary, ICSF</i></p> <p>Opening Remarks: <i>M.K.R. Nair, Fisheries Development Commissioner, Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Government of India</i></p>
1000 – 1115 hrs	<p><i>Chair: Kartik Shanker, Centre for Ecological Sciences, IISc</i></p> <p>Case Study Presentation: Gulf of Mannar (Marine) National Park and Biosphere Reserve, Tamil Nadu <i>S. Arulanandam, Legal Advisor, Ramnad District Fishworkers' Trade Union, Tamil Nadu</i> <i>Ramya Rajagopalan, ICSF</i></p> <p>Comments <i>H. Malleshappa, Conservator of Forests, Virudhunagar District, Tamil Nadu</i> <i>R. Muthuswamy, Joint Director, Department of Fisheries, Tamil Nadu</i> <i>P. Rajan, Team Leader, DHAN Foundation</i></p> <p>Discussion</p>
1115 – 1230 hrs	<p><i>Chair: Mr. Pankaj Sekhsaria, Member, Kalpavriksh</i></p> <p>Case Study Presentation: Sundarban Tiger Reserve and National Park, West Bengal <i>Pradip Chatterjee, Chief Co-ordinator, DISHA, West Bengal</i></p> <p>Comments <i>Madhumita Mukherjee, Joint Director, Department of Fisheries, West Bengal</i> <i>Anjan Guha, Assistant Field Director, Sundarban Tiger Reserve, West Bengal</i></p> <p>Discussion</p>
1230 – 1345 hrs	LUNCH

1345 – 1500 hrs	<p><i>Chair: C.M. Muralidharan, Consultant, FAO</i></p> <p>Case Study Presentation: Gahirmatha (Marine) Wildlife Sanctuary, Orissa <i>Narayan Haldar, President, OTFWU, Orissa</i></p> <p>Comments <i>B.K. Patnaik, Principal Chief Conservator of Forests (Wildlife) & Chief Wildlife Warden, Forest and Environment Department, Government of Orissa</i> <i>V. Sampath, Ex-Adviser, Ministry of Earth Sciences, Government of India</i> <i>Aarthi Sridhar, Researcher, Dakshin Foundation</i></p> <p>Discussion</p>
1500 – 1530 hrs	TEA
1530 – 1630 hrs	<p><i>Chair: Harekrishna Debnath, Chairperson, NFF</i></p> <p>Case Study Presentation: Gulf of Kutch (Marine) National Park, Gujarat <i>Nilanjana Biswas, Independent Researcher</i> <i>Bharat Patel, Fisheries Sector, SETU, Gujarat</i></p> <p>Case Study Presentation: Malvan (Marine) Wildlife Sanctuary, Maharashtra <i>Ramesh Dhuri, Malvan Taluka Shramik Maachimar Sangh, Maharashtra</i></p> <p>Discussion</p>
1630 – 1730 hrs	<p><i>Chair: B.C. Chowdhury, Professor, Wildlife Institute of India,</i></p> <p>Society and Ecology: Building Bridges between People and Conservation, Agatti Conservation Reserve: A Case Study (Lakshadweep) <i>Deepak Apte, Assistant Director, Bombay Natural History Society (BNHS)</i></p> <p>Communities and MPAs in Andaman, and Nicobar Islands: An Overview <i>Manish Chandi, Research Associate, ANET</i></p> <p>Discussion</p>
DAY 2: 22 JANUARY (THURSDAY)	
0930 – 1000 hrs	<p>Recap of key issues from presentations <i>Ramya Rajagopalan and Varsha Patel, ICSF</i></p>
1000 – 1040 hrs	<p><i>Chair: Venkatesh Salagrama, ICM</i></p> <p>Existing legal framework for marine protection: Is there a need for a rethink? <i>ICSF Secretariat</i></p> <p>MPAs in India: Some Legal Concerns <i>Sanjay Upadhyay, Advocate, Enviro-Legal Defence Firm</i></p>
1040 – 1100 hrs	<p><i>Chair: Sanjiv Gopal, Campaign Manager, Oceans, Greenpeace India</i></p> <p>Fishing community institutions in the context of conserving marine living resources <i>V. Vivekanandan, Adviser, SIFFS</i></p>
1100 – 1130 hrs	TEA
1130 – 1300 hrs	Group discussions: Proposals for livelihood sensitive conservation
1300 – 1415 hrs	LUNCH

1415 – 1500 hrs	<p><i>Chairs: Nilanjana Biswas and Mr. Pankaj Sekhsaria</i></p> <p>Presentation of group reports</p>
1500 – 1530 hrs	TEA
1530 – 1645 hrs	<p><i>Chair: V. Vivekanandan, Adviser, SIFFS</i></p> <p>Panel Discussion</p> <p>The way forward:</p> <ul style="list-style-type: none"> – <i>B.K. Patnaik, PCCF (Wildlife) and Chief Wildlife Warden, Orissa</i> – <i>B.C. Choudhury, Professor, Wildlife Institute of India (WII)</i> – <i>Harekrishna Debnath, Chairperson, National Fishworkers' Forum (NFF)</i> – <i>Kartik Shanker, Assistant Professor, Centre for Ecological Sciences, IISc, and Founder Trustee, Dakshin Foundation</i> – <i>Nalini Nayak, Member, ICSF</i> – <i>Madhumita Mukherjee, Joint Director, Department of Fisheries, West Bengal</i>
1645 – 1730 hrs	<p><i>Chair: Nalini Nayak, Member, ICSF</i></p> <p>Concluding Session</p> <p>Address to the Workshop: Striking a balance between conservation and livelihoods of fishing communities</p> <p><i>Suresh Prabhu, MP, Former Union Minister for Power, Environment and Forests, Government of India</i></p> <p>Vote of thanks</p>



RAMYA RAJAGOPALAN/ICSF

A fisherman in Kilakarai, Tamil Nadu, making a trap-net

Appendix III

List of Participants

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A fishing family from Thoopukadu fishing village, Tamil Nadu. Fishing communities should be the focus of conservation and resource management efforts

Appendix IV

MARINE PROTECTED AREAS IN INDIA: AN ANALYSIS¹

Executive Summary

Fisheries in India

With a coastline of 8,129 sq km, an exclusive economic zone (EEZ) of 2.02 mn sq km, and a continental shelf of 468,000 sq km, spread across 10 coastal States and six Union Territories, India's marine ecosystem is extremely diverse. Apart from the four major coral reef areas—along the coasts of the Andaman and Nicobar group of islands, the Lakshadweep group of islands, the Gulf of Mannar and the Gulf of Kutch—mangroves are found along both the east and west coasts of India. Seagrass beds occur along the coasts of Tamil Nadu, Lakshadweep and Andaman and Nicobar islands and the Sundarbans. Five species of sea turtles and 25 species of marine mammals are found in Indian waters.

There are 3,305 marine fishing villages in India, with a total fishermen population of 3.57 mn, and an active fishermen population of 0.81mn. About 0.83 mn people are involved in other allied activities relating to fishing. The fisheries sector contributed 1.04 per cent to the national gross domestic product and 5.34 per cent to agriculture and allied activities in 2004-05. The marine capture fish production was 2.92 mn tonnes in 2005, with the mechanized sector contributing over 65 per cent of the catch. The number of fishing craft rose from 144,030 in 1980 to 238,772 in 2005, a growth of 65 per cent in 25 years.

The 1970s and 1980s saw the expansion of the mechanized trawl fleet for shrimp harvesting in different parts of India. The competition for resources between the artisanal and mechanized sectors resulted in a number of conflicts over fishing grounds and fishing rights in States like Goa, Kerala and Tamil Nadu. This led to the adoption of Marine Fishing Regulation Acts (MFRAs) by different States, which demarcated zones for traditional fishing. Enforcement of these zones is, however, known to be weak. In the absence of an effective management system, for both the small-scale and mechanized sectors, there is evidence of increasing pressure on resources, particularly in inshore waters.

Marine protected areas

With the conservation of marine resources increasingly occupying centrestage in the global agenda, the concept of marine protected areas (MPAs) is being widely propagated. However, the conventional definitions of MPAs use conservation as a point of departure for analysis and advocacy, and do not factor in their socioeconomic aspects in a definitive manner.

Protected areas (PAs) need to be seen not just as sites rich in biodiversity but also as areas historically rich in social and cultural interactions, often with great importance for local livelihoods. In practice, MPAs have increasingly become tools that limit, forbid and control use patterns and human activity through a structure of rights and rules. An MPA may be both a “biological success” and a “social failure”, lacking broad participation in management, sharing of economic benefits, and conflict-resolution mechanisms. Long-term biological success can be sustained only if proper mechanisms of governance are in place.

1 This study was undertaken by Ramya Rajagopalan, and was commissioned by the International Collective in Support of Fishworkers (ICSF) in 2007. It is available at <http://mpa.icsf.net/icsf2006/jspFiles/mpa/casestudies.jsp>

Focus of study

These are the issue that this study seeks to address. Specifically, it aims to:

- provide a framework for the design and implementation of MPAs;
- document and analyze the experiences and views of local, particularly fishing, communities, on various aspects of MPA design and implementation; and
- suggest how livelihood concerns can be integrated into the MPA design and implementation process, identifying, in particular, how local communities, especially fishing communities, could engage as equal partners in the MPA process.

The two case studies—on (i) the Gulf of Mannar National Park (GOMNP) and the Gulf of Mannar Biosphere Reserve (GOMBR), and (ii) the Malvan (Marine) Wildlife Sanctuary—highlight the importance of taking account of social issues in MPA implementation.

MPAs in India

India has a network of 611 PAs, including 96 National Parks, 510 Wildlife Sanctuaries, three Conservation Reserves, and two Community Reserves, covering a total of 155,978.05 sq km, or approximately 4.75 per cent of the geographical area of the country, including both terrestrial and marine ecosystems. Besides these, the Government of India (GoI) has also declared 14 biosphere reserves under the Man and Biosphere (MAB) programme of the United Nations Educational, Scientific and Cultural Organization (UNESCO), which are also part of the PA database.

India has 31 MPAs, of which 18 are fully under the marine environment, while the other 13 are partly also on land. Besides these, there are another 100 PAs that have terrestrial or freshwater ecosystems that border with seawater or partly contain coastal and marine environments. These PAs have been notified either as National Parks or Wildlife Sanctuaries. There are three Biosphere Reserves. The 31 MPAs cover an area of 18.5 per cent of the islands and 6.16 per cent of the coastal biotic zones. It is proposed to increase this area to 36.14 per cent and 7.12 per cent, respectively.

India's first MPA was designated in 1967 for the protection of wetlands and the birds migrating there, even before a central legal framework was put in place. Most of the MPAs were designated during the 1980s and early 1990s. The major marine and coastal protected areas along the coastline of India (excluding the islands) that are important from a fishing-community and marine resource-conservation perspective are: the GOMNP, the Sundarbans National Park, the Gulf of Kutch National Park, the Gulf of Kutch Wildlife Sanctuary, the Malvan (Marine) Wildlife Sanctuary, and the Gahirmatha (Marine) Wildlife Sanctuary.

Legal framework

Principal legislation

India has no specific legislation for MPAs, and PAs are declared mainly under the provisions of the Wildlife Protection Act (WLPA) 1972 (as amended in 2002 and 2006) in both terrestrial and marine ecosystems. The Act is implemented by the Centre's Ministry of Environment and Forests (MoEF), through the various State Departments of Forests and Environment. Significantly, in India, MPAs are designated for conservation and preservation of the ecosystem, and not for fisheries management. The WLPA provides for two kinds of protection to species—protection of specific endangered species listed in Schedules I, II, III and IV (especially against hunting), regardless of their location, and the protection of all species in designated PAs. The species listed in Schedules I, III and IV includes marine species.

PA categories under the WLPA include National Parks, Sanctuaries, Tiger Reserves², Conservation Reserves and Community Reserves³. Currently, existing MPAs are either declared as Sanctuaries or National Parks⁴. Importantly, while Biosphere Reserves are not legally a PA category, they are an important entity notified under the MAB-UNESCO biosphere programme.

Sanctuaries and National Parks are primarily no-commercial extractive-use zones. In National Parks, the focus is on conserving the habitat of a species with a higher degree of protection, while in Sanctuaries, the focus is on conservation of a species, with provisions for allowing traditional activities practised for non-commercial purposes. The WLPA specifically mentions that if any part of the territorial waters are to be included within a Sanctuary or National Park, prior concurrence is needed from the Central government, provided that the limits of the area of the territorial waters are determined in consultation with the Chief Naval Hydrographer of the Central government, and after taking adequate measures to protect the occupational interests of the local fishermen. The WLPA recognizes the right of innocent passage of any vessel or boat through the territorial water of the Sanctuary.

The tiger conservation plan, introduced in the 2006 Amendment to the WLPA, is the first to address the issue of co-existence of wildlife and human activity, with due recognition to livelihoods, development, and the social and cultural rights of the local people, in the buffer or peripheral areas, as specifically applied to the Sundarban Tiger Reserve.

Any area owned by the government can be declared as a Conservation Reserve by the State governments, after consultations with local communities, particularly those areas adjacent to National Parks and Sanctuaries. The State governments can also declare any privately owned area or community land, not part of a National Park, Sanctuary or Conservation Reserve, as a Community Reserve, when the community or an individual has volunteered to conserve wildlife and its habitat.

The WLPA requires that the government settle the rights of communities before declaring PAs, and sets up advisory committees for Sanctuaries, and management committees for Conservation and Community Reserves.

Other legislation

The other important pieces of legislation relevant to wildlife and forest resource management are: the Biological Diversity Act (2002) and Rules (2004); the Indian Forest Act (1927); the Forest (Conservation) Act (1980, as amended in 1988); the Scheduled Tribes and the Other Traditional Forest Dwellers (Recognition of Forest Rights) Act (2006) and Rules (2008); and the Environment (Protection) Act (1986). The MoEF is the nodal agency for implementation of all the above legislation, except the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act.

In the case of fisheries management, there are relevant central legislation relating to maritime jurisdiction, demarcation of the EEZ, regulation of fishing by foreign vessels, and management of fisheries. There are also policy notes and guidelines brought out by the GoI.

Besides the MoEF, the Coast Guard, the Ministry of Agriculture, and the Ministry of Science and Technology are actively involved in implementation, management and research of marine resources, at the Central level. At the State level, the Departments of Forests are responsible for implementing

2 Added by 2006 Amendment

3 Added by 2002 Amendment

4 Provided in the initial act of 1972

and managing MPAs, while the Departments of Fisheries are responsible for managing fisheries resources and the welfare of fishing communities. Significantly, by virtue of the fact that several cases related to implementation of environmental legislation have been brought before the courts in India, the judiciary has played an important role in interpreting and monitoring the implementation of environmental legislation in the country.

India and the CBD

In its third report to the CBD in 2006, India stated that marine and coastal protected areas have been declared and gazetted; management plans have been developed in consultation with all stakeholders; effective management, with enforcement and monitoring, exists; and a national system or network of marine and coastal protected areas is already in place. The GoI identified major legislative and institutional barriers, and a variety of social, economic, political, administrative and financial reasons that impede effective establishment and management of PAs; these included the absence of management plans and monitoring processes, low investment in both manpower and financing, and inadequate inter-agency co-ordination.

Although the GoI has identified the key issues that hinder the effective implementation of the PA programme of work, little action has been taken to address these issues, even until as late as 2007. The GoI's presentation at the CBD regional workshop on protected area implementation in early 2007 noted that enabling mechanisms were still being developed to incorporate Programme Element 2 of the Protected Area Programme of Work, on Governance, Equity and Benefit Sharing, into the legal framework. It was also stated that there are currently limited provisions for sharing benefits with local communities. Discussions at the workshop revealed the lack of data on the socioeconomic status of communities dependent on PAs.

Case studies

This study focuses on two cases—the Gulf of Mannar National Park (GOMNP) and the Gulf of Mannar Biosphere Reserve (GOMBR) and the Malvan (Marine) Wildlife Sanctuary.

GOMNP and GOMBR

The GOMNP comprises a group of 21 uninhabited islands, located on the Tamil Nadu coast in south India. It was created in 1986 to conserve the coral reef, mangroves and seaweed habitat of the area. The National Park, with an area of 560 sq km, forms the Core Area of the Biosphere Reserve (GOMBR). The Biosphere Reserve was set up in 1989 under the UNESCO-MAB programme and covers 10,500 sq km, making it the largest marine and coastal protected area (including the land and territorial sea component) in India.

Rough estimates suggest that there are 125 fishing villages and 35,000 active fishers who depend on the resources in the Gulf of Mannar area, especially on fishing, and collection of seaweed and other marine resources. There are approximately 5,000 fisherwomen who depend on seaweed collection in and around the 21 islands, and 25,000 fishermen who dive to collect sea cucumbers. The National Park is managed by the Wildlife Warden, Department of Forests, while the biosphere area is managed by the Department of Forests, in co-ordination with the Gulf of Mannar Biosphere Reserve Trust (GOMBRT). The district-level Fisheries Department implements the regulations under the MFRA.

Malvan (Marine) Wildlife Sanctuary

The Malvan (Marine) Wildlife Sanctuary was designated in 1987, and covers an area of 29.12 sq km, with a Core Area of 3.18 sq km. The Core Area includes the Sindhudurg fort, Padamged island and other submerged rocky structures. The Core Area is used for anchoring fishing vessels, and by a small number of hook-and-line fishermen for fishing. The Buffer Area has seven villages, with a population

of over 7,000 that depends on fishing for a livelihood. The area is managed by the Forest Department. Though the Sanctuary has been designated, it exists mainly on paper, as the regulations have not been implemented. At the same time, local politicians have been demanding the de-notification of the Wildlife Sanctuary.

In both Malvan and GOM, fishing communities feel that there has been no process of consultation with them. The studies also indicate that significant provisions in PA legislation that support the rights and occupational interests of communities are yet to be implemented. Thus, the rights of communities in these PAs are yet to be settled; and provisions for protecting the occupational interests, and innocent passage, of fishers in territorial waters under PAs, have not been taken into account. Also, while there are legal provisions to form advisory committees for Sanctuaries, in practice, these are yet to be formed in the case of Malvan.

Both the case studies reveal that fishing communities have been asking for better implementation of existing fisheries legislation—the provisions of the MFRAs of their respective States—to control trawling, in the case of the GOM, and purse-seining, in the case of Malvan. The livelihoods of small-scale fishing communities are being threatened by the poor implementation of existing fisheries legislation. Communities feel that control of destructive fishing practices will, by itself, benefit conservation. With their demands for better implementation of existing legislation remaining unmet, the current or proposed restrictions on their relatively low-impact fishing practices are seen as unjust.

As highlighted by the case studies, while the management of PAs lies with the Forest Departments, the responsibilities for fisheries management within these areas continue to be vested in the Fisheries Departments. The lack of adequate co-ordination and co-operation between these different departments only complicates matters.

The case studies also demonstrate that fishing communities have either taken up, or are willing to take up, management initiatives to minimize the impact of their fishing activities. However, such community initiatives have not received adequate official support, and have not yet been incorporated into the management plans for the PAs.

Conclusions and Recommendations

PAs, as a tool for conservation, have been in use in India since the late 1960s and, in general, the approach has been conservative and top-down, with a focus on “keeping people out” and banning extractive activities. However, in tandem with global processes, such as the decisions taken under the CBD’s Protected Areas Programme of Work, which have emphasized community participation, there is now more focus, in legislation, policy and practice, on community participation and co-management of natural resources. While these are all changes in the positive direction, there is yet a long way to go, as was evident from feedback from communities obtained in both the case studies. The following recommendations follow from an analysis of the case studies:

- *Comprehensive framework*: There is need for a comprehensive framework, backed by corresponding legislation, for the management of marine and fisheries resources, drawing on fisheries and integrated coastal area management approaches. MPAs should be seen as one of the tools within this larger framework⁵. A review, and if necessary, revision, of existing legislation, to ensure coherence and complementarity, is required.

5 The need for a comprehensive approach, and a comprehensive legislation that will support this approach, is also one of the demands of the main fishworker union in India, the National Fishworkers’ Forum (NFF), as outlined in a recent workshop on marine reserves in India (See *SAMUDRA Report* No. 48, November 2007).

- *Rights of communities:* Provisions in existing international legal instruments that support the rights of traditional and small-scale fishing communities to conservation initiatives should be better reflected in national legislation and policy.
- *Implementation of legislation:* Existing provisions relating to settlement of rights, taking into account the occupational interests of fishermen in territorial waters falling within PAs, and setting up of advisory committees in PAs, should be urgently implemented.
- *Community conservation initiatives:* Initiatives by local communities to conserve and manage resources, traditional or otherwise, should be supported, including through use of provisions in existing legislation. Lacunae or drawbacks in existing legislation, such as the WLPA, that prevent extending legitimate support to community initiatives and institutions, or undermine their autonomy, should be addressed with suitable amendments to the legal framework.
- *Participation of communities:* Effective participation of communities in management and conservation activities should be ensured, especially in view of the understanding and knowledge that communities have about their ecosystems, and, as importantly, about their social environment. This knowledge is essential to decide on what types of management measures will work, and what will not, in particular sociocultural and environmental contexts. Where communities are part of the decision-making process, the likelihood of compliance with management measures will correspondingly increase, minimizing, at the same time, conflicts between communities and the various official regulatory and implementing agencies.
- Related to the above, conservation initiatives should seek to address community concerns *vis-à-vis* environmental degradation and destruction, choosing the approach to be adopted through a consultative process. This means that the choice of appropriate management/conservation tool, the objectives of management, the management plan, the governance structure, provisions for community representation, and the implementation and monitoring plan, should be decided in consultation with local communities. For instance, communities may or may not see MPAs as the most effective management measure in their context.
- *Benefit sharing:* The economic and sociocultural benefits from PAs (not only the costs) should flow directly back to local communities, guided by the principle of equitable benefit sharing.
- *Socioeconomic data:* Gender-segregated baseline socioeconomic data must be collected and collated, to assess the impact of MPAs, and to develop suitable programmes to minimize their negative impacts on communities. Such data should form the basis for regular spatial and temporal monitoring to assess the social and economic impacts of MPAs.
- *Alternative livelihoods:* Long-term functional and sustainable alternative livelihood options need to be developed in consultation with communities. Alternative livelihood sources should not, by definition, mean activities alternative to fishing and fisheries. Various options within the fisheries sector, involving low-impact gear and techniques, or improved processing and marketing, need to be considered.
- *Institutional co-ordination:* There should be greater institutional co-ordination between the various departments involved in the management of marine and coastal ecosystems, also to ensure coherence between various regulations in place, reducing their complexity and enhancing possibilities of compliance.
- *Institutional framework:* The role of the State-level Fisheries Departments in managing marine and coastal protected areas needs to be recognized, secured and enhanced, given their expertise in fisheries management issues and their understanding of the social dimensions of the fisheries sector.

- *Capacity building*: Capacity building of PA managers, from both the Forest and Fisheries Departments, is needed, especially in adopting a participatory approach to management. A change in mindset, from viewing communities as encroachers, to communities as allies, is needed. Capacity building is also needed to develop and strengthen local community organizations to take up conservation, management, and economic activities.
- In conclusion, undoubtedly, India's rich and diverse marine and coastal resources ought to be managed and conserved. However, it is as important that any such effort be undertaken in partnership with local and traditional communities dependent on these resources. Without such a balanced approach, the conservation goal of MPAs will never go hand-in-hand with the larger aim of poverty alleviation.

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A fisherwoman from Malvan, Maharashtra . Gender-segregated data must be collected to assess the impact of MPAs on fishing communities



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A fisherman from Jharkali, Sundarbans, West Bengal. Fishing is a major source of livelihood in the Sundarbans region

Appendix V

FISHING COMMUNITY ISSUES IN THE SUNDARBAN TIGER RESERVE (STR)⁶

The study focuses on fishing community issues in the Sundarban Tiger Reserve (STR). It provides an overview of the legal framework, and design and implementation of fishing regulations, and documents and analyzes the experiences of local fishing communities. It explores ways in which livelihood concerns can be appropriately balanced with conservation. The report builds upon a study titled 'Traditional Fishers in the Sundarban Tiger Reserve' (DISHA 2008) and draws upon secondary review of literature and field visits conducted in September 2008.

The report is structured in six parts. The first part provides the legal background and the second sketches the status of fisheries and fishing communities. The third part focuses on livelihood issues within the STR, and community concerns regarding implementation of tiger protection measures. Part four explores the initiatives undertaken in the domain of alternative livelihoods. Part five offers a conclusion. The final sixth part, recognizing the initiatives that have been taken to address alternative livelihood options, lists the study's recommendations.

The Sundarbans is the largest mangrove forest in world, located in the delta of the Ganges and Brahmaputra rivers, in West Bengal, India. This unique region has overlapping protected area (PA) designations under the Wild Life (Protection) Act (WLPA), 1972, (as amended in 2002 and 2006): Core or Critical Tiger Habitat (2007), National Park (1984), and Wildlife Sanctuary (1976). It was earlier declared as the Sundarban Tiger Reserve (1973), under the Project Tiger of the Ministry of Environment and Forests. Other special designations are the World Heritage Site and Biosphere Reserve (1989). The Sundarban Tiger Reserve is managed by the Conservator of Forests and Field Director, STR, and fishing licences, permits and identity cards for fishing in the STR are issued by the Forest Department.

Fishing is a major source of livelihood in the region, alongside wage labour, agriculture, and crab and prawn seed collection. The main craft used in the Sundarbans region are the *naukas*, and popular fishing gear are dragnets, shore-seines, gillnets and fixed bag-nets. Fishing villages often have poor access to potable water, basic transportation, electricity, education and health facilities.

Extractive activities, including fishing, are prohibited in the Critical Tiger Habitat, or the Core Area of both the STR and the SBR. Non-motorized craft, with boat licence certificates (BLCs), seasonal passes and permits for using dry fuel, are permitted to fish in the inter-tidal waters that form the Buffer area of the STR. Motorized fishing is prohibited within the STR, requiring fishers living closer to the STR, to take long detours to reach their fishing grounds, increasing their operational time and costs.

Violations are booked under three main categories, the most common being the compounded offence report (COR), or violations that are fined but are not charge-sheeted. Fishers report that fines levied for violations, and for delay in re-issuing/renewing permits, are confusing, and that there is little relation between the type of offence, the amount of fine and their socioeconomic condition. Fishworker unions have differing views on fishing restrictions. One group opines that all restrictions should be removed, while another group is advocating for "restrictions with a human face".

6 This study, by Ramya Rajagopalan and Varsha Patel, is based on information from the report titled "Traditional fishers in the Sundarban tiger reserve: A study of livelihood practices under protected areas", by the Direct Initiative for Social and Health Action (DISHA) and additional information collected by the International Collective in Support of Fishworkers (ICSF). This study was prepared by ICSF for distribution at the workshop and is available at <http://mpa.icsf.net/icsf2006/jspFiles/mpa/casestudies.jsp>.

Human-animal conflicts persist despite the Forest Department's continuous efforts to minimize them. There are important issues related to compensation in cases where fishers are killed by tigers, as (i) the compensation amount is considered inadequate; and (ii) families of fishers considered to be fishing illegally are not provided any compensation.

The short-term and longer-term alternative livelihood opportunities provided include activities of social forestry, and rearing of poultry, goats, ducks and sheep. Currently the Forest Department alone has formed 25 eco-development committees (EDCs) and forest protection committees (FPCs) in villages on the STR's fringes.

Among the recommendations of the study are: collection of gender-segregated, socioeconomic data for populations dependent on resources in the STR; enhancing co-ordination between different agencies in the STR; ensuring collection of systematic information on fisheries resources, craft and gear by the Fisheries Department; developing and implementing management plans of the STR in a participatory manner, with the active participation of women; ensuring transparency and consistency in recording and fining offences; and simplifying procedures for issue/re-issue of permits. Navigational passages to allow motorized vessels to pass through the Buffer Area to reach their fishing grounds, could be demarcated.

Forest Department officials should be trained in participatory conservation methods, while the fishing communities need to be trained in conservation and patrolling techniques, so as to enable better conservation of resources.

Access to formal credit could support both fishing- and non-fishing-based livelihoods, and alternative livelihood initiatives could be sustained by strengthening market linkages and through a gender perspective. The coverage, activities, structure and processes of the EDCs and FPCs could be revised for better conservation and management, and for addressing issues of rural development and alternative livelihoods.

Seasonal livelihood options generated by ecotourism must be ensured to have low impacts on the ecosystem, and their costs and benefits must be equitably shared. Threats to the ecosystem arising from pollution, oil spills and mangrove destruction also need to be addressed.

The study advocates a holistic and balanced approach to protection and propagation of wildlife habitats, built on participatory livelihood approaches and principles of sustainable development, within the existing legal and policy framework. The provisions of the WLPA, providing for the involvement of the gram sabha, and of the FRA, regarding recognition of the bona fide livelihood needs of traditional forest dwellers who are dependent on, but do not necessarily reside within, the forests, need to be taken into account, as also the recommendations of the Tiger Task Force (2005) on reinvigorating institutions of governance.

Appendix VI

THE GULF OF KUTCH (MARINE) NATIONAL PARK AND SANCTUARY: A CASE STUDY⁷

The Gulf of Kutch is situated in Saurashtra in the western State of Gujarat in India. The region is an arid peninsula. Economic development was historically centered around the port facilities offered by the Gulf. Sea trade and fishing were important traditional occupations. The Gulf is rich in marine wealth and biodiversity. The region was notified as a Marine National Park and Sanctuary (MNPS) in 1982. Since 1991, coral reefs and mangroves in the region have additionally been accorded the highest degree of protection under the 1991 Coastal Regulation Zone (CRZ) Notification.

Today, the region is the centre of the industrial growth and economic boom in Gujarat. The rampant and unchecked industrialization threatens both the traditional economy of the region, and its sensitive marine ecology. The biggest threat is from the giant petroleum and petrochemicals-based industry on the coastline of the Gulf. Seventy per cent of India's total crude import is expected to take place through the Gulf of Kutch. In addition, chemicals like soda ash, cement, fertilizer, salt works, thermal power stations and shipbreaking units are contributing to what adds up to an environmental disaster.

The Gulf of Kutch MNPS, unlike most of Gujarat's 26 other PAs, has a management plan, though dated. However, the plan has done little to protect the region from the depredations of industrialization. The reasons include overlapping jurisdiction of various government regulatory bodies, and the absence of clear physical and legal boundaries. The lack of a political opposition strong enough to take on the single-minded drive towards industrialization in Gujarat is another reason.

The biggest victims of this unchecked industrialization and the resultant pollution and habitat degradation are the local communities. Fishing, in particular, traditional fishing, has been very negatively affected by environmental pollution, and competition from large fishing vessels. Agriculture, which flourished in small pockets, has been destroyed by the degradation of soil and groundwater.

Women already appear to be bearing the brunt of the unfolding crisis. The sphere of women's domestic responsibilities has greatly increased with the compounding crises in groundwater availability, lack of basic healthcare, and increased livelihood insecurity. There is evidence of women from fishing families moving from traditional occupation to wage employment, as headload workers in salt pans, and in other forms of manual labour. The effect on women's health is particularly pernicious, with high rates of maternal mortality being reported by fishing communities.

There is a small but growing opposition to industrialization from some unions and NGOs.

⁷ This study, commissioned by ICSF, was undertaken by Nilanjana Biswas, an independent researcher. It is available at <http://mpa.icsf.net/icsf2006/jspFiles/mpa/casestudies.jsp>



AARTHI SRIDHAR/DAKSHIN FOUNDATION

Fisherfolk at an auction in Orissa. The state's marine fisherfolk population has increased threefold between 1980 and 2005

Appendix VII

SOCIAL DIMENSIONS OF SEA TURTLE PROTECTION IN ORISSA, INDIA: A CASE STUDY OF THE GAHIRMATHA (MARINE) WILDLIFE SANCTUARY AND THE NESTING BEACHES OF RUSHIKULYA AND DEBI⁸

Executive Summary

This study focuses on the legal framework for sea turtle protection in the Indian State of Orissa. It documents the social consequences of turtle protection measures on fishing communities, and analyzes their experiences with various aspects of sea turtle protection. Its specific site focus is the Gahirmatha (Marine) Wildlife Sanctuary, and the Rushikulya river mouth and the Devi river mouth area.

The study draws substantially on two previous studies of the area undertaken in 2004 and 2005, and, based on field work during 24-30 November 2008, updates information on the current status of sea turtle conservation measures in Orissa.

The study report is divided into six parts. The first part examines the legal framework for turtle protection in Orissa, focusing on both wildlife and fishing regulations. The second part deals with the State's fisheries and fishing communities. The third part analyzes the implementation of the protection measures. The fourth part narrates the experiences of fishing communities in the light of recent turtle protection initiatives. The fifth part provides the conclusions of the study, while the final, sixth part puts forward some recommendations on measures that could, within the existing legal framework, help balance sea turtle protection and the livelihood needs of fishing communities.

Orissa's coastline of 480 km and continental shelf of 24,000 sq km are spread across six coastal districts. The marine fisherfolk population has increased threefold between 1980 and 2005, to number 450,391, around 1.2 per cent of the total population of the State, distributed across 641 marine fishing villages. Fishing villages are mainly located in remote areas, with poor access to basic services like education and health, and to paved roads, and transportation facilities. The main fishing craft used by the mechanized sector are trawlers, gillnetters and *dol*-netters, while plank-built boats and *teppas* are used by the small-scale artisanal sector.

The Gahirmatha (Marine) Wildlife Sanctuary, proposed in 1975 to protect the sea turtle nesting and breeding habitats, was finally designated in 1997. Orissa is the only State in India where turtle protection measures are undertaken within the framework of the Wild Life Protection Act (WLPA), 1972, and the Orissa State Marine Fishing Regulation Act (OMFRA), 1982, and Rules, 1983. The two legal frameworks have different approaches: The WLPA focuses on protection, and prohibits all activities inside PAs, except for a few restricted activities. The OMFRA adopts a fisheries development focus by restricting, regulating or prohibiting certain activities.

8 This paper, prepared by Ramya Rajagopalan, is a follow-up to two previous ICSF studies undertaken by Aarthi Sridhar ("Sea Turtle Conservation and Fisheries in Orissa, India", *SAMUDRA Monograph*, ICSF, Chennai, 2005) and Sebastian Mathew ("Socioeconomic Aspects of Management Measures Aimed at Controlling Sea Turtle Mortality: A Case Study of Orissa, India", in *Papers Presented at the Expert Consultation on Interactions between Sea Turtles and Fisheries within an Ecosystem Context*, FAO, Rome 2004), and draws extensively on them. It provides an update on the current situation regarding sea turtle conservation measures in Orissa, based on discussions and field work undertaken by Ramya Rajagopalan and Varsha Patel from 24-30 November 2008. This study is available at <http://mpa.icsf.net/icsf2006/jspFiles/mpa/casestudies.jsp>

Although the WLPA provides for the innocent passage of vessels in PAs within territorial waters, fishers often find it difficult to prove their innocence. Patrolling of the Sanctuary's waters has been made difficult by the fact that patrolling officers cannot determine whether fishing vessels are fishing inside the Sanctuary or merely exercising their right of innocent passage through it.

The rise in the number of prohibitions and regulations has affected traditional and small-scale fishing operations and communities, by reducing the actual area available for fishing, by cutting down the number of fishing days as well by curtailing access to fishing grounds.

The social consequences—both direct and indirect—of the implementation of turtle protection measures on Orissa's fishing communities are many. They range from loss of livelihoods due to reduced access to fishing grounds, confiscation of vessels and arrest of crew to lengthy legal processes that undermine the socioeconomic status of fishers. It is not only active fishers who are directly affected by Sanctuary regulations but also women who are actively involved in post-harvest and marketing activities. Turtle conservation measures have thus alienated fishing communities, who feel targeted and excluded. In recent years, Orissa's fishing communities report higher levels of indebtedness, suicides and cases of mental illness.

In view of the fact that there are still no clear indicators to show conclusively that Orissa's sea turtle population has indeed been restored or maintained, even after years of protection measures, these issues need to be urgently and sensitively addressed, in the interests of social justice and equity. There is also a need to operationalize Section 26A of the WLPA, which highlights the need for measures to protect the occupational interests of local fishermen within Sanctuaries, and the need to protect the right of innocent passage of any vessel or boat through the territorial waters.

It is important to recognize the significance of conserving sea turtles, an important flagship species, and their habitat, within a wider coastal and marine management framework. It is equally important to take into account the social consequences of the implementation of conservation and management measures. Alternatives for the restoration and maintenance of turtle nesting populations, and the sustainable use of fisheries resources should attempt to go beyond an 'exclusionary protectionist mode' to an 'inclusive conservation mode'.

Among the measures that can address these issues are: better implementation of existing legal provisions in the OMFRA and the WLPA; enhanced monitoring and enforcement with the active participation of fishers; improving the effectiveness of conservation; conduct of regular meetings of the official committees appointed for turtle conservation measures; increased training and capacity building for fishing communities; and enhancing livelihood options for communities, taking into account their low skill sets and education levels, and the poor availability of basic services.

In the long term, it is necessary to move towards a comprehensive marine and coastal conservation and management policy framework, which will take into consideration India's international obligations under various Conventions and regional instruments. The aim should be to balance protection of turtles with the sustainable use of fisheries resources. The legitimate access rights of fishers should be better recognized, and fishing communities should be encouraged to participate actively and fully in decision-making processes.

THE INDIA MPA WORKSHOP

Proceedings

Social Dimensions of Marine Protected Area Implementation in India: Do Fishing Communities Benefit?

Marine protected areas (MPAs) are being widely propagated as an important tool for the conservation of marine and fisheries resources. The International Collective in Support of Fishworkers (ICSF) recently undertook a series of studies on MPAs in India to highlight the various legal, institutional, policy and livelihoods issues that confront fishing and coastal communities.

In order to discuss the findings of these case studies and to suggest proposals for livelihood-sensitive conservation and management of coastal and fisheries resources through participatory processes, ICSF organized a two-day workshop on 'Social Dimensions of Marine Protected Area Implementation in India: Do Fishing Communities Benefit?' at Chennai on 21-22 January 2009.



This publication—the India MPA Workshop Proceedings—contains the prospectus of the workshop, a report of the proceedings and the consensus statement that was reached by organizations and individuals who participated in the workshop. This publication will be useful for fishworkers, non-governmental organizations, policymakers, trade unions, researchers and others interested in natural resource management and coastal and fishing communities.



ICSF is an international NGO working on issues that concern fishworkers the world over. It is in status with the Economic and Social Council of the UN and is on ILO's Special List of Non-Governmental International Organizations. It also has Liaison Status with FAO. As a global network of community organizers, teachers, technicians, researchers and scientists, ICSF's activities encompass monitoring and research, exchange and training, campaigns and action, as well as communications.