

A SPECIAL COURSE

# Managing Coastal Marine Biodiversity and Protected Areas

for MPA managers





# Capacity Development for Sustainable and Effective Management of Coastal and Marine Protected Areas (MPAs)

In the coastal areas, a major determinant of the well-being and livelihood security is the availability of marine and coastal biodiversity resources and access to these resources. Consequences of the biodiversity loss and resulting loss of ecosystem services, therefore, have far reaching impacts on livelihoods and the overall well-being of coastal communities.

One of the most effective means of protecting marine and coastal biodiversity is through the establishment and management of marine and coastal protected areas (MPAs) and community-involvement in managing the coastal and marine ecosystems.

A holistic capacity development system for the MPA managers, addressing their knowledge, skills and values, is key to developing approaches for sustainable and effective management of coastal and marine biodiversity.

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Capacity development is the process of developing the capacities of individuals and shaping joint learning processes such that the individuals are enabled to achieve sustainable results within their own system of reference.

Capacity development facilitates change among people, in three dimensions: knowledge, skills and values/attitudes. A combination of traditional and innovative capacity development measures is required to achieve the objective.

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# About the Special Course

The course for the senior IFS officers as MPA managers, is planned to be delivered in a 3-phased manner, since it may not be practically possible for the senior officers to take out time at once for 3 weeks.

The first one-week training will be organized as a field expedition to selected coastal/ marine protected areas to facilitate participants in exploring and understanding coastal and marine ecosystems, and also getting a first hand information of various issues and challenges associated with managing these ecosystems.

The second one-week intensive training course will facilitate the participants further developing their conceptual and skill base on coastal and marine biodiversity and MPAs, differences in managing terrestrial and coastal resources, coastal and marine related laws and policies, mainstreaming tools and leadership and communication skills.

The third one-week specialized training will be focused on effective management of coastal and marine protected area, where the participants will specialize in developing management planning and effectiveness evaluation of the MPAs.



# Learning Outcomes of the Course:

By the end of Phase-I (Coastal and Marine Expedition), the participants:

- can describe various habitats and species of the coastal and marine ecosystems
- are aware of the concepts and issues related to managing coastal and marine biodiversity
- become open to acquiring more knowledge on coastal and marine biodiversity relevant issues

By the end of Phase-II (One-week Dialogue on Coastal and Marine Biodiversity), the participants are able to:

- outline concepts and issues related to managing coastal and marine biodiversity, and demonstrate the types and relevance of different categories of MPAs in different scenarios
- differentiate clearly, between the ecological and socio-political context, conservation approaches and legal-policy framework between terrestrial and coastal-marine PAs.
- manage and organize assessment and monitoring of coastal and marine habitats and species and prepare field reports drawing expertise from the required sectors
- be open to acquiring more knowledge on coastal and marine biodiversity relevant issues

By the end of Phase-III (One-week Specialized Training on Management Effectiveness), the participants are able to:

- Develop MPA management plans and operational plans based on management effectiveness guidelines
- conduct effectiveness evaluation of coastal and marine protected areas, as a specialist

# The process of curriculum development

## Capacity needs assessment

The first step in facilitating capacity-development is to assess what key capacities already exist with the key stakeholders and what additional capacities might be required by specific stakeholders to contribute to the project objectives.

The process of capacity needs assessment (CAN) was therefore carried out in a truly participatory and cross-sector manner, with the involvement of institutions and experts from the forest, fisheries and media sectors. CNA was conducted as series of workshops, group discussions, meetings and individual consultations. At the individual level, competencies were assessed in the knowledge, skills and values dimensions. A special focus of this assessment process was identifying capacity needs for enhancing cross-sector and cross-stakeholder cooperation.

## Curriculum development dialogue

To develop a competence-based curriculum and training material for existing and potential MPA managers, the project organized two curriculum development workshops during 2014 in Delhi and Chennai. The participants represented a good mix of coastal and marine experts, fisheries experts, protected area managers, media professionals, capacity development experts, governance and policy experts and senior administrators and decision-makers from the Ministry, premier forest training institutes such as WII, IGNEA, DFE, State Forest Department representatives, specialized research institutions for coastal and marine research, NGOs and International organizations.

The curriculum development group developed a curriculum framework, with 12 modules, to be delivered in three phases to the MPA managers. A core team of authors and editors was identified to elaborate the curriculum. It took six months for putting together the contents and structure, several rounds of review, editing, re-writing and then special editing to ensure cross-sector linkages.



# Training Approach and Methodology

The course is intended to enable the participants to have a sound understanding of the concepts and issues related to managing coastal and marine biodiversity, coastal and marine protected areas, ecological and socio-political context, conservation approaches and legal-policy framework between terrestrial and coastal-marine Pas, as well as necessary skills to develop management plans and evaluate effectiveness of coastal and marine protected areas.

The course uses a mix of field-based and classroom training sessions, in almost equal proportions, to facilitate the participants in applying the information from class-room sessions into the field conditions, and to understand the field-level phenomena and actions in a broader development context.

A unique feature of the course is to focus on the aspects of appreciation and contemplation of nature and ecological consciousness, for which special sessions are organised during the course.

A participatory training is different from the conventional way of training in that, in a participatory training, learning occurs through active involvement of the trainees and it is they who develop the answers. Following are some examples of such methods:

- 1 Group work and presentations
- 2 Dialogue and brainstorming
- 3 Knowledge Café
- 4 Role play
- 5 Simulation (case study simulation/ video simulation)
- 6 Online games and Mind Maps
- 7 Case Studies
- 8 Fish Bowl
- 9 Icebreakers, energisers, and team-building exercises
- 10 Nature walks and contemplation
- 11 Under-water and coastal surveys
- 12 Field excursions





## Competence-based curriculum for the field-level MPA managers

The Special Certificate Course uses a competencies-based curriculum with a strong emphasis on field-based exercises using participatory methods of training and learning. The training material is developed by a competent team of experts drawn from forest, fisheries and media sectors, bringing in a truly cross-sector perspective to the whole process of capacity development.

In order to assess the competencies required for specific job profiles, a capacity needs assessment (CNA) study was undertaken by the CMPA project. The results of this study formed the basis for developing a competencies-based curriculum for capacity development measures on coastal and marine biodiversity and MPA management for forest, fisheries and media sector professionals.

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Competencies-based curriculum is a way of approaching professional training that places primary emphasis on facilitating the participants in further developing their competencies, which are required to enable them in performing their jobs more efficiently and effectively. It aims at preparing people more effectively for real workplaces.

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# An Overview of the modularized curriculum

## Module 1:

### **An introduction to coastal and marine biodiversity**

This module provides the foundation of the course by providing the basic concepts of biodiversity at the genetic, species and habitat levels, focussing on the examples and peculiarities of the coastal and marine ecosystems

## Module 2:

### **Coastal and marine Ecosystem Services and their Value**

This module facilitates participants looking into the concept of ecosystem services, overall development agenda via Global Sustainable Development Goals, the concept of sustainability, the concept of sustainable livelihoods and its interlinkages with the ecosystem services. The module then takes a deeper look into the economic values, and threats to coastal and marine biodiversity and focuses in detail on the climate change and disaster aspects and their interrelationship with the coastal and marine biodiversity conservation

## Module 3:

### **From Landscape to seascape**

This brief but very important module provides an overview of the ecological, socio-economic and political context that make the coastal and marine ecosystem management different from the management of terrestrial ecosystems. The module also summarizes the key ecosystem characteristics of the coastal and marine ecosystems.

#### Module 4:

### Assessment and monitoring of coastal and marine biodiversity and relevant issues

This module provides an overview on different coastal and marine ecosystems, critical marine habitats, their importance and assessment. This also describes selected assessment methodologies of different critical habitats and different flora and fauna found in coastal and marine ecosystems. The module ends with an overview of the stakeholder mapping and analysis for an effective MPA management.

#### Module 5:

### Sustainable Fisheries Management

This module provides much needed information on the basics of fisheries management, and principles and practices of sustainable fisheries management in and around marine protected areas. Apart from providing useful case studies on the subject, this section is also covering challenges and trade-offs with the protection oriented coastal management, synergies with the MPAs and livelihood security.

#### Module 6:

### Coastal and Marine Protected Areas

This module provides much needed information on the basics of marine protected areas (MPAs). The module provides insights into the differences between them and terrestrial protected areas, special conditions that affect the management of MPAs, and the categories and

types of MPAs. This module covers the key issues of community participation and the role of indigenous communities in managing the MPAs and coastal and marine biodiversity management. Module also contains information on different types of MPAs in India and their locations, and the benefits and challenges that MPAs management involves.

#### Module 7:

### Governance, law and policies for managing coastal and marine ecosystems, biodiversity and protected areas

This module gives an outline and a brief history of the diverse governance, legal and policy frameworks for managing coastal and marine ecosystems. The governance, policies and laws have been presented in two sections. The first section deals with global conventions and guidelines that provide a framework to the maritime countries to draft national policies and legislation for conservation and management of coastal and marine habitats and species. The second section provides an overview of the major policies, law, rules and guidelines in India.

#### Module 8:

### Coasts, Climate Change, Natural Disasters and Coastal Livelihoods

The module provides an overview of the concepts of climate change and natural disasters and the related risks that they pose to the coastal and marine biodiversity and ecosystems. The module further explores in detail the impacts of climate change and





natural disasters on coastal livelihoods and their management options using examples and cases. The module then focuses on a very important issues of possible synergies and trade-offs between the measures taken towards climate change management, coastal and marine biodiversity conservation, coastal livelihoods and coastal disaster management.

#### Module 9:

### Tools for Mainstreaming: Impact assessment and spatial planning

To ensure that biodiversity-related issues and concerns become a part of the larger

development planning process in the country, there is a need to incorporate it into policies, strategies and action plan. There is also a need to use science-based tools to understand the impact that projects can have on the environment and ensure that spatial planning incorporates measures for conservation of coastal and marine biodiversity.

#### Module 10:

### Change Management and connectedness to nature

This module will take up the prioritized global competencies as identified for the MPA managers to effectively communicate with key stakeholder and for an effective cross-sector dialogue. These are connectedness and ecological consciousness, communication skills, leadership qualities and stakeholder engagement approach.

#### Module 11:

### Communicating Coastal and Marine Biodiversity Conservation issues

This module will help managers of marine and coastal protected areas (MPAs) understand how media looks at coastal and marine conservation issues. Since conservation is not in the media priority and biodiversity come into news only when an event happens, the module will help managers to understand how to get journalist attention on conservation using the news pegs. The module will introduce the different tools for media relations, their strengths and limitations. It will also discuss how to use these tools during a crisis communication situation.

#### Module 12:

### Effective management Planning of coastal and marine protected areas

This module provides an overview of the management experiences in terrestrial as well as marine environments. A description of the elements of management plan and guidelines for effective protected area management along with the key indicators form the major part of the learning from this module. Case studies help participants in applying concepts and guidelines to the real life cases.





# About the project

## Conservation and Sustainable Management of Existing and Potential Coastal and Marine Protected Areas (CMPA)

The Project –‘Conservation and Sustainable Management of Existing and Potential Coastal and Marine Protected Areas (CMPA)’, under the Indo-German Biodiversity Programme, is a technical cooperation project jointly implemented by the Governments of India and Germany. The Project is commissioned by the German Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety (BMUB) with funds provided under the International Climate Initiative (IKI), in partnership with the Ministry of Environment, Forests and Climate Change (MOEFCC), Government of India.

The project aims at contributing to conservation of biodiversity through participatory approaches in the management of existing and potential coastal and marine protected areas in India. The project measures are being implemented on the following three pillars:

- Participatory management approaches for conservation of sites
- Capacity strengthening system for supporting participatory management of CMPAs
- Information, communication and awareness raising

### About the Organisers:

The *Wildlife Institute of India (WII)* has a mandate to train Indian Forest Service officers, State Forest Service officers, as well as other key stakeholders such as the Coast Guard and Customs etc., and has recently initiated one-week refresher course exclusively addressing issues related to integrated management of coastal and marine biodiversity targeting senior forest officials.

*Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH* is an enterprise owned by the German Government. GIZ implements sustainable development through international cooperation, on behalf of Germany and other partners. With a global footprint in over 130 countries, GIZ leverages its regional and technical expertise for local innovation.

To address the challenges in biodiversity conservation, the Ministry of Environment, Forests and Climate Change (MoEF&CC) of Government of India and GIZ India- on behalf of the German Government – are implementing the Indo-German Biodiversity Programme.



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