

Coastal and Marine Biodiversity Conservation and Protected Area Management

for the Indian Forest Service (IFS) Probationers



giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

On behalf of:



Federal Ministry
for the Environment, Nature Conservation,
Building and Nuclear Safety

of the Federal Republic of Germany



Capacity development is the process of developing the capacities of individuals and shaping joint learning processes so 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 attitudes. A combination of traditional and innovative capacity development measures is required to achieve the objective.



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 coastal and marine 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. To ensure a long term and widespread impact of the capacity development measures and to mainstream coastal and marine biodiversity into conservation planning in India, it is imperative that this issue gets integrated in the training curriculum of the probationary officers of the Indian Forest Service.

Keeping this in mind, the CMPA project of GIZ and the Indira Gandhi National Forest Academy (IGNFA) have designed specialized training measures for the IFS probationers, on coastal and marine biodiversity and MPA management.



About the Training measures for IFS Probationers

The Training measures for the IFS Probationers (future MPA managers) are designed to be delivered in a three-phased manner.

The first phase is a preLearning Phase, which begins a few months prior to the expedition. Participants are facilitated through eLearning to gain further clarity on basic concepts and issues.

The second phase is organized as a coastal and marine Training expedition to selected coastal and marine ecosystems. This facilitates 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 field interactions and reflections enables participants in exploring their connectedness with nature.

The third phase is structured as follow-up learning and reflection phase, where participants are facilitated through a journey of setting up their personal learning and leadership goals and action plan for coastal and marine biodiversity conservation during their service.

Learning Outcomes of the Training Measures:

By the end of Phase-I (preLearning via eLearning), the participants:

- can describe various coastal and marine habitats and species
- 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 (Training Expedition), the participants are able to:

- able to outline concepts and issues related to managing coastal and marine biodiversity and demonstrate the types and relevance of different categories of MPAs
- able to differentiate clearly, between terrestrial and coastal-marine protected areas vis-a-vis the ecological and socio-political context, conservation approaches and legal-policy framework
- able to understand the relevance of community involvement and cross-sector cooperation
- open to acquiring more knowledge on coastal and marine biodiversity and contributing to its conservation in whichever capacity possible in the future.

By the end of Phase-III (Follow-up and Reflection), the participants are able to:

- appreciate the need to adopt specialised conservation approach for coastal and marine biodiversity
- draw their personal learning and leadership goals and action plan to contribute to coastal marine biodiversity conservation during their service



The process of curriculum development

Capacity needs assessment

The process of capacity needs assessment (CNA) was carried out in a truly participatory and cross-sector manner, with the involvement of institutions and experts from 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.



Based on the findings of the CNA process, capacity development strategy was framed. Development of specialized training material for training of the MPA managers at different levels, was clearly the central part of this strategy.

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 MoEFCC, premier forest training institutes such as Wildlife Institute of India, Indira Gandhi National Forest Academy, 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, for the MPA managers. It was suggested to conduct Training expeditions for the IFS probationers and develop necessary material for such expeditions with the support from specialised agencies.



Approach and Methodology

The training measures for the IFS probationers use an experiential learning approach, where the participants are facilitated through all the three stages of learning- Knowledge, Activity and Reflection, in an integrated manner.

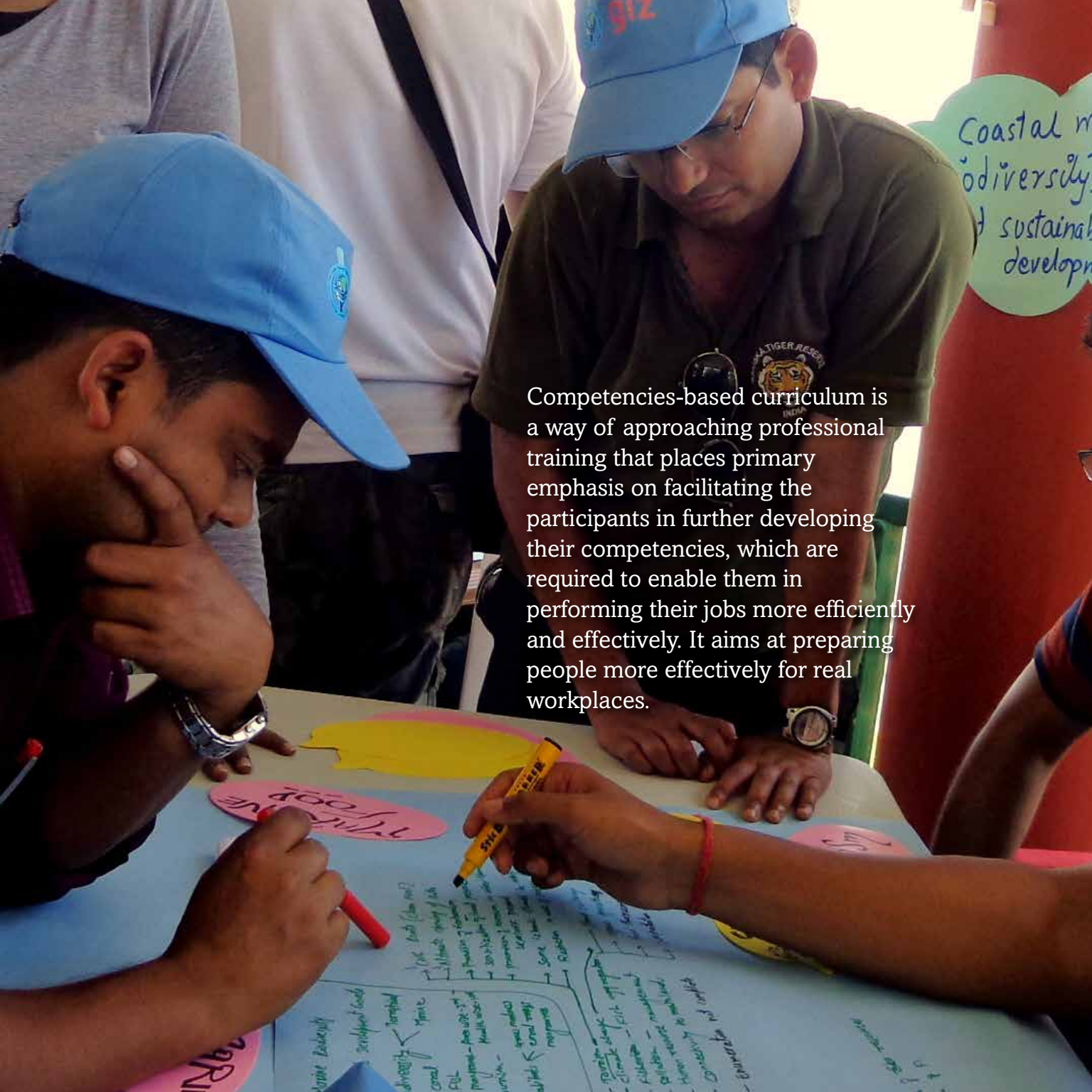
As the first step, the participants are provided with the Training Resource Material, in the form of eLearning, for fulfilling their knowledge requirement and fueling their interest in understanding coastal and marine issues.

During the training expedition, participants are involved in a variety of activities in coastal and marine areas, which are carefully selected based on the expected learning outcomes. Participants get an opportunity to visit different coastal and marine habitats, and get their underwater experience with marine species through diving and snorkeling. They meet and exchange experiences and ideas with variety of stakeholders who are key in protecting and managing coastal and marine resources, as well as experts from different sectors i.e., forest, fisheries, media, marine biology, capacity development and the existing MPA managers. Participants use a specialized document- Field Learning Journal- to record their observations and reflections.

Post-expedition, the participants get many and varied opportunities to analyse their observations, and reflect on the results. A structured element on personal learning review and setting up future personal goals for coastal marine biodiversity conservation provides the perfect beginning of a new passion for the participants.

Participants are facilitated through activities focussing on their personal leadership styles and developing the skills to achieve their future goals.





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.



Competence-based curriculum for IFS Probationers

The Training measures use a competence-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 capacity development and experiential learning experts with inputs from the experts from forest, fisheries and media sectors, bringing in a truly cross-sector perspective to the whole process of capacity development.





An Overview of the Training and Expedition Resource Material

During Phase- I [preLearning]:

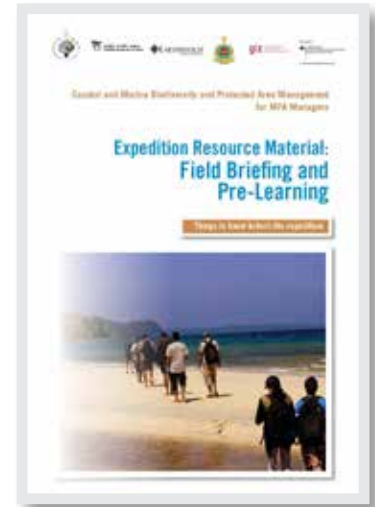
The participants are provided with Field Briefing and Pre-Learning, as well as Training Resource Material that is a set of 12-modules. All this material is available in hard copy, as well as through a dedicated eLearning platform.

Field Briefing and Pre-Learning:

The field briefing and pre-Learning is designed to give participants the required information to prepare for the expedition – logistically, conceptually and emotionally. It includes important information on logistics, such as whereabouts of the expedition site, what to pack, how to physically prepare for the expedition, what conceptual understanding they might need to gain prior to the expedition to maximize their learning during the expedition.

Training Resource Material:

The conceptual understanding of the coastal and marine biodiversity issues is facilitated through a set of training resource material containing 12 modules which has been developed for the training of MPA managers, and serves as a background resource material for the Training Expedition of the IFS probationers. An eLearning portal has been established that contains all the training resource material, discussion forum and the expedition related information for the participants.



During Phase- II [One-week Training Expedition in Andaman] :

The participants are provided with a specially designed Field Learning Journal.

This journal, designed as a personal field diary for each participant, provides background information on the issues and sites to be visited during the expedition, space to capture their own observations and ideas, as well as guiding questions for analysis and reflections. The learning journal is structured in a way that helps prompting the participant to think about their connect with nature in ways they may not be used to. The learning journal helps participants to get the maximum learning out of their expedition experience.



During Phase- III [Reflection and drawing personal goals towards coastal marine biodiversity]:

The training material in this phase includes a format on "Personal Learning Review" that has been specifically designed for the IFS probationers. The probationers are also encouraged to revisit their "Leadership Training" notes at this time, and draw up their personal learning and leadership goals and action plan to contribute to coastal marine biodiversity conservation during their service.



Coastal and marine champions in action

Vision without action is merely a dream. Action without vision just wastes the time. Vision with action can change the world.

— Joel Barker

- Personalized goals are created and written down.
- Action plans are developed and goals.

Setting smart goals

Goal	Start Date	End Date	Status

My top three goals for achieving my vision

The 100 objectives to make the top 1000 people in the world are not just about setting goals. They are about setting the time and energy to achieve them. The time and energy to achieve them. The time and energy to achieve them. The time and energy to achieve them.

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Training Resource Material

Following is an overview of the 12 modules: [preLearning material]

Module 1:

An introduction to coastal and marine biodiversity

This module serves as 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 on some case studies.

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 of different coastal and marine ecosystems, critical marine habitats, their importance and assessment, selected assessment and monitoring methodologies of different critical habitats and different species 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 module 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:

Interlinkages between coastal and marine biodiversity, 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

This module provides the conceptual background and introduction of mainstreaming biodiversity. 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. This module provides the basic concepts and examples of such tools knowledge of which is useful for the conservation managers and decision-makers.

Module 10:

Change Management and connectedness to nature

This module takes up the prioritized global competencies as identified for the MPA managers to effectively communicate with key stakeholder and for an effective cross-sector dialogue. The module elaborates a selected set of such competencies such as connectedness to nature and ecological consciousness, communication skills, leadership qualities and stakeholder engagement approach.

Module 11:

Communicating Coastal and Marine Biodiversity Conservation issues

This module will help field-level MPA managers understand how media looks at coastal and marine conservation issues. Since conservation is not in the media priority and MPAs come into news only when an event happens, the module will help managers to gain knowledge and skills for effectively engaging media on conservation issues. 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 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 effective management plan and guidelines for management effectiveness evaluation along with the key indicators and framework on Management Effectiveness Evaluation (MEE) of coastal and marine protected areas form the major part of the learning from this module. Case studies help participants in applying concepts and guidelines to the real life cases.





Partners

Indira Gandhi National Forest Academy (IGNFA)



The primary mandate of the Academy is to impart knowledge and skills to the professional foresters and help them to develop competence for managing the country forest and wildlife resources on a sustainable basis. In the Academy training is provided at different levels of seniority in the Indian Forest Service besides training the new entrants to the service.

www.ignfa.gov.in/



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About the project

The Project –‘Conservation and Sustainable Management of Coastal and Marine Protected Areas (CMPA)’, under the Indo-German Biodiversity Programme, is a technical cooperation project supported by the Governments of India and Germany (2012-17). 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, Forest 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. Project activities are implemented together with the Forest Departments of the project partner states - Gujarat, Goa, Maharashtra and Tamil Nadu, as well as with premier national training institutions.

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