

Proceedings of International Consultative Workshop on
**‘Enhancing Capacity for Effective Management of Coastal and
Marine World Heritage Sites of the Asia-Pacific Region’**

26th to 28th February, 2016

Sunderbans National Park, World Heritage Site, West Bengal, India



Jointly organised by

**UNESCO Category 2 Centre for World Natural Heritage Management
and Training for the Asia-Pacific Region, Wildlife Institute of India**

GIZ - India

West Bengal Forest Department

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‘Enhancing Capacity for Effective Management of Coastal and Marine World Heritage Sites of the Asia-Pacific Region’

Consultative Workshop on ‘Enhancing Capacity for Effective Management of Coastal and Marine World Heritage Sites of the Asia-Pacific Region’ was organized from 26th to 28th February, 2016 at Sunderbans National Park & World Heritage Site, West Bengal, India. This workshop was jointly organized by UNESCO Category 2 Centre, Wildlife Institute of India, GIZ-India and West Bengal Forest Department.

The workshop was mainly intended to build the capacity of various stakeholders to enhance the participatory management of Marine Protected Areas in India with following objectives:

1. Sensitize the participants to the existing policy and legal issues, international guidelines and framework of management planning concerning Coastal and Marine WHS.
2. Equip the site managers to deal with disaster events and adopt risk reduction strategies.
3. Introducing the concept of ‘climate proofing’, management of climate change and adoption of mitigation measures.
4. Sharing of experiences and best practices in Coastal & Marine WHS management in the region
5. To evolve a road map towards effective management of Coastal & Marine WHS in the region.

Globally renowned resource persons with specific domain expertise such as David Sheppard, Former Director General, and Secretariat of the Pacific Regional Environment Programme (SPREP), Stuart Chape (Director, Biodiversity and Ecosystem Management, SPREP), Peter Shadie (IUCN Senior Advisor, World Heritage), Josephine Langley (Consultant), Michael Vakily (Team Leader, Conservation of Coastal and Marine Area, GIZ) participated, apart from managers of Coastal and Marine sites from Bangladesh, Maldives and India. The list of participants is given in Annexure-I

Inaugural Session

The introductory remarks at the workshop were made by Dr. V.B. Mathur, Director, Wildlife Institute of India. Shri Manoj Nair, IFS, Scientist, UNESCO Category 2 Centre, WII welcomed the participants. Shri Punamchand Parmar, Principal Secretary (Environment and Forests) Government of Gujarat, Sh. S.S. Bist Emeritus Scientist, Wildlife Institute of India, Dr. Jan Michael Vakily Team Leader, Conservation of Coastal and Marine Areas (CMPA) Project, GIZ and Dr. David Sheppard, Director General, SPREP delivered inaugural addresses at the

workshop. Dr. Sonali Ghosh, IFS, Scientist, UNESCO Category 2 Centre, WII delivered the vote of thanks for the inaugural session.

Technical Session I

Planning and Managing a Coastal & Marine Protected Area

The session was chaired by Sh. S.S. Bist, Emeritus Scientist, Wildlife Institute of India. The lead speaker, Mr. David Sheppard, Director-General, SPREP made a presentation on the global perspectives in planning & managing Coastal & Marine protected areas. He stressed on the threats and challenges in planning and management of coastal and marine PAs in the world with special emphasis on Pacific Region, highlighting overfishing as a major threat and provided appropriate examples from the Pacific region. He also discussed climate change related issues and their possible impacts on marine PAs of Pacific region, giving details of the trends of rising air sea surface temperature and sea level. Ocean acidification, a global threat driven by emission of CO₂ in atmosphere is also a major threat for marine ecosystems.

Marine pollution from ships is also a significant threat; though this is addressed by International Maritime Organisation (IMO) conventions, such as MARPOL. He also stressed on deep sea bed mining as a threat to the coastal and marine ecosystems.

After sharing threats, he discussed the responses including marine protected areas and provided the six IUCN categories of Marine Protected Areas (MPA). MPAs can be an important tool for long-term protection and management of marine resources. The priority areas for future assessment e.g. Palau, Western Ghats, Andaman Sea and Red Sea Corals were highlighted. He also discussed the World Heritage Marine Programme established at UNESCO, Convention on Biological Diversity, the CBD-Aichi targets relevant to MPAs, Ramsar Convention, CITES, Convention on Migratory Species, Biosphere Reserve and UN Framework Convention on Climate Change in detail. Many MPAs are not effectively managed and this must be addressed. He concluded that the marine and coastal environment is essential for life on earth, but most resources therein are under significant threat. MPAs are a powerful tool for conserving and managing marine resources and protecting crucial marine biodiversity. However these areas must be effectively designed, planned and managed. International Conventions, such as World Heritage, can provide important support for strengthening marine conservation efforts and key threats and challenges must be addressed directly.

Dr. K Sivakumar made his presentation on Coastal and Marine Protected Areas of India. He started with the reminder of International day for Biological Diversity, Marine Biodiversity on 22nd May, 2016. He discussed the biodiversity profile of India and presented the importance of coastal zones with special emphasis on Olive Ridley turtles rookeries and Dugongs. Besides providing information on

Lakshadweep atolls and coastal and marine biodiversity hotspots of India, conservation initiatives undertaken by Government of India like National Conservation Strategy and Action Plan for conservation of Dugongs and their habitat in India were also shared. He provided an example of Species Action Plan for Sea turtle conservation and discussed about various socio-ecological benefits associated with such conservation plans.

Management and conservation of Gulf of Mannar Marine National Park was highlighted as a case study wherein permissible activities in various zones of the Gulf of Mannar Biosphere Reserve and National Park were highlighted, as indicated after consultation with stakeholders. The current status of EDC Zone (Administrative setup) of Gulf of Mannar Biosphere Reserve and proposed administrative setup of the Gulf of Mannar Biosphere Reserve Management Authority was also deliberated upon so that the participants get an idea of the administrative framework of MPAs in India.

Technical Session II:

Disaster Risk Reduction and Coastal and Marine World Heritage Sites

Speakers of this technical session were Mr. Peter Shadie and Dr. Sonali Ghosh. The session was chaired by Dr. David Sheppard. The speakers represented global and Indian perspectives on Disaster Risk Reduction (DRR). Mr. Shadie initiated the session with apologies from the Director, IUCN's WH Program for not being able to attend, and thanked Wildlife Institute of India, GIZ and the West Bengal State Forest Department for the invitation and support of this workshop. He proceeded with DRR and its importance, with reference to Protected Areas and World Heritage sites.

The session continued with an introduction to Protected Areas and World Heritage sites as the healing elements of the ecosystem. There are various types of natural hazards which may be classified into biological, geophysical, meteorological, hydrological and climatological. The natural hazard was defined as "A serious disruption of the functioning of a community or a society, beyond its own coping abilities". The number of people affected and loss of property by the disaster has increased due to change of weather. Damages due to the disaster are huge in different parts of the world.

All the ecosystems are inter-connected, and the impact on ecosystems due to human activity is huge. There is a strongly growing global attention which is being paid to Disaster Risk Reduction. The most significant recent event was the Sendai 2015 UN World Conference on Disaster Risk Reduction with its key outcome being the Sendai Framework for Disaster Risk Reduction 2015-2030, which is the first major agreement of post-2015 development agenda, with seven targets and four priorities for action, a growing alliance of organisations advocating the use of ecosystem-based adaption for Disaster Risk Reduction. The Partnership for

Environment and Disaster Risk Reduction (PEDRR) is a global alliance of UN agencies, NGOs and specialist institutes which are formally established in 2008. IUCN first involved with DRR after being called to do an assessment of the damages to the environment from Indian Ocean tsunami in Sri Lanka, 2004.

The role and existing tools used for three key stages of the disaster management cycle were also discussed. Firstly, PAs are impacted by natural hazards and therefore they have to concentrate on hazard assessment, vulnerability assessment and prepare Disaster Response Management Plans. Therefore PAs and WH sites have to be thought as vital tools in the international effort to mitigate the impacts of nature on people. Further, wetlands and floodplains regulate natural hydrological processes and protection against desertification. The buffering benefits of intact mangrove systems in fostering healthy robust coastal ecosystem were also dealt with.

As a part of the session, Dr. Sonali Ghosh spoke on “Perspectives on Disaster Risk Reduction with special reference to Protected Areas”. This presentation was an overview of how Protected Areas help in DRR, Coastal and Marine examples of DRR benefits, Case studies from India as well as DRR planning in Natural Heritage sites in Asia-Pacific. According to IUCN, Protected Areas cover about 15.4 % of land and just over 3.4% of oceans. However, they provide protection to 80% of threatened species and store more than 15% of global terrestrial carbon stock. Eco-DRR aims to achieve sustainable and resilient development where PAs have a great role in acting as carbon sinks apart from supporting integrity and providing alternative livelihood sources to local community after a disaster. The three pillars of Protected Areas are carbon sequestration, disaster relief, and supply of various human needs. The session gave an excellent idea regarding DRR and the role of PAs including MPAs to all the participants.

Technical Session III:

Engaging Communities in Management of Coastal and Marine World Heritage Sites

The session commenced with the case study of Indian Sundarbans, led by Dr. Pradeep Vyas. He presented a comprehensive introduction of Sundarbans with details of its history, geomorphology, administrative boundaries, biodiversity, local communities, socio-economy and the interaction between local people and biodiversity along with other natural resources followed by the conservation issues and mitigation measures. He discussed the details of past records, possible reasons of human-tiger conflict as well as mitigation measures adopted to reduce conflict. He also emphasized the potential of Joint Forest Management and highlighted its efficiency through time series analysis. He concluded his presentation with the proposal of a ‘Trans-border Protected Area’ for better management of Sundarbans.

During the discussion, a question was raised about the efforts to keep the WHS status of Sundarbans intact. He mentioned that Sundarbans has the status of the highest protection in the Indian context as it is a National Park. In addition to that, the forest department has established a proper monitoring system for stray tigers. He also mentioned that funding is required for different projects as all projects have different priorities. Dr. Sheppard asked about the Memorandum of Understanding (MoU) signed between India and Bangladesh and added that there should be a MoU exclusively on the monitoring of tiger and conservation monitoring of the existing mangrove forests. Dr. Lobo asked whether the fishermen of the region are taken under the consideration of Forest Right Act or not. In reply, Dr. Vyas informed that there are no villages or native tribes which reside in the core zone of Indian Sunderbans. Sh. Shyamal Tikadar enquired about the details of the eco-sensitive zone and the challenges to maintain it. Dr. Vyas replied that management of increasing tourism is a matter of concern and added that tourist lodges adjoining to the forest do not follow proper waste management practices. He further added that the Supreme Court has ordered to maintain 10 km buffer zone but in some cases, due to expanding settlements the buffer has shrunk to 2 km or less.

This was followed by a presentation on 'Training local communities for effective monitoring of coastal & marine PAs' by Ms. Josephine Langley. The presentation started with the basics of monitoring. She explained monitoring in the context of UNESCO World Heritage through the Operational Guidelines of UNESCO. After this the basics of monitoring such as Monitoring and Evaluation; Why, What and How to monitor and Monitoring needs were discussed. On this note, she brought the opportunities for monitoring in WH / MPAs keeping Sundarbans and Puerto Princessa as a model.

After discussing the basics of monitoring, the roles of communities in monitoring were taken as the topic of discussion. It was also mentioned that an effective PA monitoring by communities could be established by assessing training needs, incorporating limitations to community training and monitoring and by managing assumptions, expectations and by grasping opportunities.

After this presentation, Mr. Peter Shadie opened the session for questions and discussion. Regarding assessing the training needs of communities, Dr. V.B. Mathur suggested that volunteer-based monitoring has to be flexible and simple. Dr. David Sheppard gave an example of community involvement in reactive monitoring at Phoenix Island. Mr Lobo also shared his experience in community-based monitoring along India's West Coasts. He mentioned that inventory was done by the community where the fishermen were given cameras and they documented the fish diversity. Further, Ms. Aminath Afau gave a detailed idea about community monitoring in Maldives. She mentioned that the local divers and fishermen were chosen for training. They were given "Fish log" which they had to fill on a daily

basis. The data goes to marine research centre for interpretation and monitoring. Further, for the promotion of citizen science, a “Fish app” has also been developed.

The session concluded by feedback from the chairperson Mr. Shadie, who spoke about the missionary zeal required for monitoring through community participation. He also briefed about the different scenarios and systems in the Pacific and Asia. He mentioned how the Sundarbans forest staff went out of their way to help the local communities in the time of crisis when cyclone Aila struck in 2009. This helped the forest department to build a bond with the local community and that led to a long-term successful community-based monitoring program for Sundarbans. Lastly, he mentioned about the IUCN based programs for establishing community-based monitoring programs.

Technical Session IV:

Climate Change and Coastal and Marine World Heritage Sites

At the beginning of the technical session IV, Mr. Stuart Chape made his presentation on World Heritage in the Pacific Islands: Climate Change and El Niño events. He discussed the importance of the Pacific region by giving an outline of natural resources and development pressures prevailing there. He also provided an introduction of The Secretariat of the Pacific Regional Environment Programme (SPREP) which is an intergovernmental agency that provides assistance and technical advisory services to Pacific Island countries. To achieve regional sustainable development, SPREP assists in the protection and management of their natural ecosystems.

He provided a brief introduction on Pacific island countries' ecological diversity which possesses a high degree of ecosystem and genetic diversity, and endemism as well. However, integrity of regional ecosystems such as MPAs have been adversely affected due to rapid industrialization, urban drift, and population growth. Apart from these issues, major marine environmental issues identified in the Pacific islands include impacts from climate change, habitat loss, changing land-use practices and other sources of land and marine pollution.

He emphasised on countries like the Phoenix Islands, Kiribati and Rock Islands of Palau which have high vulnerability to climate change and El Niño impacts due to very less land area and elevation above mean sea level. Impacts of El Niño include increase in intensity and frequency of Pacific cyclones, erratic rainfall patterns, ocean acidification, wild fires and so on. In the Pacific region, climate change and El Niño will adversely affect the ecological as well as a socio-economic status of the people.

Mr. Chape reiterated that Climate Change Adaptation, Disaster Risk Reduction, and Environmental Sustainability are key pillars of the ecosystem approach for

environmental resilience. The importance of policies at national and community level for making world heritage sites adaptive and resilient to climate changes effects were discussed through case studies in different countries. These case studies include Ridge to Reef and watershed management approaches where connectivity between different ecosystems is maintained with the help of local communities. This approach also includes Ecosystem and Socio-economic Resilience Analysis and Mapping (ESRAM) which integrates climate change and non-climate change threats into vulnerability assessments as a basis for adaptation planning.

The second speaker Mr. Ratul Saha spoke on Climate extremes, regional impacts and the case of resilience in the Sundarbans. He started with the screening of a documentary which displayed adverse effects of climate change and sea rise of mankind living in the coastal areas. The documentary was based on the high tide event which occurred in 2013 and resulted in salt water ingression and crop damage in the coastal region of West Bengal. He stated that due to our ignorance and irresponsible economic activities, we are facing irreversible changes across the globe which are affecting lives of millions of people. Therefore it is high time that these are put on a global agenda for the survival of mankind.

Talking about the importance of the Sunderbans landscape, he presented the bio-physical richness which has led to its nomination as a UNESCO Natural World Heritage Site. The Sunderbans has nearly 3% of faunal species of India which covers 12% of mammals, 19% of Aves, 15% of reptiles, 10% of crustaceans, etc. All these resources have high life supporting value as it supports nearly 1.3 million people. Besides this, Sunderbans landscape is also valued for its ecological services and goods like nursery for the commercial fisheries of Bay of Bengal, annual marine fish catch amounts to 60, 000 tons a year, 1000-1400 tons of mud crabs are landed annually, 3,08,685 kg honey valuing INR 16112084 was collected over a period of 14 years etc.

He stated that human population of more than 40 lakhs, developmental activities, forest area loss and recurring disasters are adding to the vulnerability of the Sunderbans towards climate change related disasters. According to studies, 1.14cm of sea level has risen between 1990-2008 which caused an increase in land loss, ocean acidification, migration of people and cyclonic storms. Mr. Saha discussed that the faunal groups like herpeto-fauna, birds, and crustaceans would be impacted directly. In addition to this, unsustainable human activities like destructive prawn farming, fishing, poaching, forest clearing and agriculture practices are harmful to the integrity of Sunderbans. The government of West Bengal along with Ministry of Environment, Forests and Climate Change and technical experts from various sectors have prepared a State Action Plan on Climate Change which is aimed at the formulation of new strategies for Climate Change Adaptation (CCA) that would ensure and enhance ecological sustainability.

Subsequently, Mr. Siddhanta Das, PCCF (WL) and CWLW, Odisha made his presentation titled "Emission Reduction Technology Demonstration Plant at NALCO, Odisha: Carbon Capture by Microalgae". Mr. Das started his presentation with a basic introduction of Thermal Power Plants (TPP) in India and associated greenhouse gas emissions. His talk was based on a pilot study conducted at NALCO Thermal Power Plant in Odisha. The study revealed that microalgae could capture atmospheric carbon oxides more efficiently than a normal tree plantation. In India, the installed capacity of thermal power plants (TPPs) as of August 2011 stands at 118,409 megawatts (MW), of which coal-based thermal power plants. However, these plants are major GHG emitters and contribute 25% of total global GHG emissions. Odisha is likely to generate about 50,000 MW of power which will generate about 800,000 tons of CO₂/day. Addressing this amount of CO₂ emissions through plantations is not a feasible solution as a large chunk of plantation area required for it. He suggested that CO₂ sequestration by microalgae can be a feasible solution as it can sequester upto 250 ton of CO₂/ ha/ year. These algae can tolerate up to 200,000 ppm of CO₂ in the atmosphere which is way more than normal plants which can tolerate up to 450 ppm of CO₂. The pilot study suggested that Algae-based capture technology is more sustainable, safe, economically viable and efficient than traditional sequestration methods. This presentation gave an interesting insight to the participants as to how innovative technologies can help in more efficiently sequestering carbon.

Technical Session V:

Building capacity to effectively manage Coastal and Marine World Heritage Sites

Technical session V was initiated by a presentation of Dr. V.B. Mathur, Director Wildlife Institute of India on Management Effectiveness Evaluation (MEE) of Coastal and Marine Protected Areas. IUCN framework is regarded as 'best practice' and is globally-endorsed, but this approach differs from other guidance documents for assessing MEE. It is designed specifically for Indian Coastal and Marine Protected Areas (CMPAs), and it attempts to more prescriptively assist the managers of CMPAs. It can focus management efforts when resources are constrained, and both the methodology and the results can be readily understood by decision-makers and stakeholders. The methodology for assessing the priority values as well as threats facing CMPAs was discussed along with a checklist to analyse the factors which are relevant for CMPAs. Finally, the methods of determining key stakeholders for the CMPA management and prioritizing the stakeholders' list by importance/influence was discussed.

Second presentation was made by Dr. Jan Michael Vakily, GIZ. He spoke on Building Capacity of Coastal and Marine PA Managers: GIZ Experience & lessons learned. He provided an overview of GIZ program in India, GIZ profile and Indo-German Biodiversity Programme in India. GIZ goals cover conservation and

sustainable uses of biological diversity in the pilot areas as well as economic well-being of the local population. For achieving the goals, the strategies and the challenges to achieve those were discussed. He talked about the strategic goals for capacity development toward sustainable management of coastal and marine protected areas in India. Further, the training approaches for human capacity development and support to the training institutions were discussed. Finally, the lessons learned through GIZ program India were shared where participative and collaborative work was recognised as the way forward to build capacity of different stakeholders.

Concluding Session

The program concluded on 28th February 2016 with a panel discussion. During the discussion, the participants shared their views on Effective Management of Coastal and Marine ecosystems including MPAs. The discussion was initiated by Dr. V.B. Mathur, Director WII. He expressed his views that capacity building is one of the most important components in CMPA management where frontline staff and local communities play an important role in monitoring pollution, dredging, trawling, illegal fishing practices as well as biodiversity. Jan Michael Vakily remarked that coastal areas are often neglected, though they are crucial for the development of the economy. He also added that capacity building in terms of imparting training in SCUBA diving will help the frontline staff to know the marine environment better. Sh. Md. Sayed Ali opined that from the management point of view, it will be ecologically relevant and easy for the managers if the entire Sunderbans, both in India and Bangladesh is treated as a unified entity. Dr. David Sheppard emphasised on the importance of marine ecosystems in terms of providing livelihood sources to around 300 million human population. Further, mangroves are crucial as they are very important in armouring the coastal areas against storms. We need to examine Protected Areas in the Asia and the Pacific region to find best practice tools. The tools can also be adopted from countries like Thailand and Malaysia for marine conservation. The issues on Marine governance, Climate change, Disaster response, and other major issues should also be considered while formulating site management and action plans. Forging links with key agencies working in the sector may also be explored by organizing a workshop in the Pacific region. Ms. Aminath Afau raised some issues about financial and human resource constraints that hinder conservation activities in Maldives. However, she showed interest in organising similar workshops in future to interact with managers of different marine parks for effective management of their Marine Protected Areas. Mr. Shyamal Tikadar, CCF Marine National Park Gujarat raised the issue of lacuna in scientific data, leading to inefficient management. Mr. Dipak Bilgi, DCF, Gulf of Mannar pointed that scientific data can be generated by involving research Institutes and Universities. Dr. Sivakumar, WII, responded that research and monitoring are

already taking place albeit in a limited scale and will be an integral part of all future Action Plans and Management Plans.

Dr. V.B. Mathur, WII concluded that we need to learn from documented best practices and case studies from across the globe. It should also be ensured that any management intervention carried out in MPAs should be carefully monitored with regard to their impacts and efficacy. He hoped that the learnings from the workshop will surely benefit the participants, especially the MPA managers and they will return to their respective areas with required zeal to put into practice the lessons learnt.

The workshop concluded with a vote of thanks offered by Mr. Manoj V Nair, who expressed his sincere gratitude on behalf of UNESCO C2C, WII to all the resource persons and participants for their valuable inputs and involved participation.



Group Photo of the Workshop Participants



Inaugural Session



Technical Session



Concluding Session



Field Visit

Annexure I



भारतीय वन्यजीव संस्थान
Wildlife Institute of India



On behalf of:
Federal Ministry
for the Environment, Nature Conservation,
Building and Nuclear Safety
of the Federal Republic of Germany



List of Participants

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Annexure II



Programme Schedule

25.02.2016	
1600 h	Arrival of participants in Kolkata and board cruiser ship M.V.Paramhamsa
2000 h	Dinner on board
Day 1: 26.02.2016	
0700 h - 0800 h	Breakfast
0800 h - 0900 h	Inaugural session
0900 h - 1130 h	Technical Session I: Planning and Managing a Coastal & Marine Protected Area <i>Chair:</i> Shri S.S. Bist <i>Rapporteur:</i> Dr Bhumesh Singh <ul style="list-style-type: none"> Global perspective of planning & managing Coastal & Marine PAs (David Sheppard) Coastal & Marine PAs in India : An Overview (K. Sivakumar) Group Discussion
1130 h - 1330 h	Case studies on Management Challenges of Coastal & Marine Protected Areas of Asia (Sunderbans India, Sunderbans Bangladesh, Maldives)
1330 h - 1430 h	Lunch
1430 h - 1700 h	Technical Session II : Disaster Risk Reduction and Coastal and Marine World Heritage Sites <i>Chair:</i> Dr. David Sheppard <i>Rapporteur:</i> Dr. Adhavan <ul style="list-style-type: none"> Global perspectives on disaster risk reduction (Peter Shadie) Indian perspectives on disaster risk reduction (Sonali Ghosh)
	Discussion
	Field visit to Sunderbans Tiger Reserve/Biosphere Reserve/Heritage Site
1900 h	Film on Sunderbans
2000 h	Dinner on Board
Day 2 :27.02.2016	
0630 h - 0930 h	Field trip
0930 h - 1000 h	Breakfast

1000 h - 1200 h	Technical Session III: Engaging Communities in Management of Coastal and Marine World Heritage Sites <i>Chair:</i> Peter Shadie <i>Rapporteur:</i> Vivek Sarkar <ul style="list-style-type: none"> • An overview of Sunderbans World Heritage Site (Pradeep Vyas) • Training local communities for effective monitoring of Coastal & Marine PAs (Josephine Langley)
	Discussion
1200 h – 1300	Interaction with senior officers of West Bengal Forest Department
1300 h -1400 h	Lunch
1400 h - 1600 h	Technical Session IV : Climate Change and Coastal and Marine World Heritage Sites <i>Chair:</i> Dr. Josephine Langley <i>Rapporteur:</i> Mr. Dhruv Verma <ul style="list-style-type: none"> • World Heritage and Climate Change in the Pacific (Stuart Chape) • Potential impacts of climate change in Coastal & Marine PAs of India (Aaron Lobo) • Adapting to climate change (WWF West Bengal)
1600 h - 1800 h	Technical Session V : Building capacity to effectively manage Coastal and Marine World Heritage Sites <i>Chair:</i> PCCF, Odisha <i>Rapporteur:</i> Dr Bhumesh Singh <ul style="list-style-type: none"> • Management Evaluation Effectiveness of Coastal & Marine PAs (Dr. V.B.Mathur) • Building Capacity of Coastal and Marine PA Managers: GIZ Experience & lessons learnt (Dr. Michael Vakily)
2000 h	Dinner on Board

Day 3 : 28.02.2016	
0800 h - 0830 h	Breakfast
0830 h - 1030 h	Concluding Session <ul style="list-style-type: none"> • Monitoring wildlife along the Antarctic continental shelf : the Indian Experience (Dr V.B. Mathur / Dr K.Sivakumar) • Plenary : The Way Ahead : Panel Discussions : (All Resource Persons)
1100 h	Reach Kolkata Port