

Biodiversity Management in the Coastal Area of China's South Sea

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UNDP/GEF/SOA Project on Biodiversity Management in the Coastal Area of China's South Sea is implemented by the State Oceanic Administration of China with the partners from five coastal provinces around China's south sea coast and NOAA. With a total investment of 12.749 million, the project is implemented in two phases. The first phase from 2005 to 2009 focused on the capacity building for the project by using a total investment of USD3.515 million from GEF and the second phase, from 2009 to 2013, focused on the dissemination of best practices and models in coastal China by using the money from Chinese Government.

The Objective of this project is the conservation and sustainable use of coastal and marine biological diversity in four sites along China's coastline. Upon successful completion of the project, stakeholders will be applying innovative and adaptive marine protected area and integrated coastal management practices to mitigate and prevent threats to coastal ecosystem integrity. In so doing, stakeholders will be utilizing new partnership, conservation tools, information and sustainable livelihoods to conserve coastal diversity in the priority sites.

The project has designed three outcomes: (1) Conservation and sustainable use management capacities at four existing MPAs are strengthened; (2) Tools, instruments and approaches for addressing the root causes of critical threats to marine biodiversity in China's South Sea coastal area are developed, tested and demonstrated; and (3) Appropriate tools for conservation and sustainable use at the four sites and promote their broader adaptation across China's South Sea coastal area are implemented.

Under the guidance of the Project Steering Committee (PSC) composed with the United Nations Development Programme, the State Oceanic Administration, relevant provincial (regional)



governments and the US National Oceanic and Atmosphere Administration (NOAA) and under the leadership of National Project Director (NPD) the project in the past three years from the inauguration to the present execution has a bumper harvest not only the capacity building at the demonstration site but also in the development of creative and adaptive tools for marine biodiversity conservation with the joint promotion of the Project Coordination Unit (PCU) and the Local Project Steering Committee (LPSC) and Site Implementation Units (SIU) at Zhejiang, Fujian, Guangdong, Guangxi and Hainan and the joint efforts of the participating units and institutions (including the subcontractors), especially the active involvement of the stakeholders at all sites. It is safe to say that the project is making steady progress towards the overall goals as indicated in the following three outputs.

Firstly, the capacity for marine biodiversity conservation at the demonstration sites has been strengthened completely. On the basis of the key threats to marine biodiversity identified at the PDF-B stage and by following the detailed work plan formulated by the demonstration sites and the procedures approved by the PSC meetings, the demonstration sites have gone deep into various government agencies, scientific institutions, universities and colleges, and relevant sector for a wide collection of data and documentations and made broad surveys among various stakeholders. Upon a thorough review and assessment of all the secondary data, the site organized supplementary field surveys to fill up the information gap identified in the previous stages. By combining the secondary and first-hand data and information, and through a process of analysis and integration, each site has formulated its Baseline Report in which the major threats to marine biodiversity are further identified and by which, the decision for the removal of various threats are information-based.

According to different environmental profiles and aiming target species for conservation, each has developed monitoring protocol and executed environmental and ecological monitoring, which has provided tools for assessing the progress and performance of the project. Based on the hardware and software conditions and by following the unified data format, each has built up the databank and GIS for managing data and information on board of advanced platform. In the past three years, by following the instruction of the Prodoc and the work plans approved by PSC meetings, training courses and study tours were organized and the monitoring equipment and facilities, communication and transport facilities and office utensils have been procured with GEF funding and the infrastructure has been improved with government funding.

Under the guidance of PSC and the coordination of PCU, the capacity for the conservation and management of shellfishes and algae in the Nanji Island, coral reefs in Sanya, mangrove, seagrass and coral reefs in Shankou and the migratory corridor in Dongshan-Nan'ao have been strengthened completely by introducing into the sites the international best practices, the extension of partnerships, the promotion of stakeholder participation and involvement, the cooperation and cross-site leaning, the public awareness campaigns and the enhancement of attention to the project from the public community.

Secondly, creative and adaptive management tools are applying in the integrated coastal zone management and marine ecosystem conservation. In the past years, special attention has been paid to applying ecosystem based management approach and technical tools for integrated coastal zone management in various demonstration sites, during which, adaptive adjustments were made according to the changes of the practical situation. Key models for the conservation and management of marine biodiversity with creative and adaptive approaches have been developed in different sites. In Nanji Site, the development of marine protected area and integrated coastal zone management are well incorporated into the township socioeconomic planning. In the course, by following the overall requirements for coastal biodiversity conservation and for the promotion of an integrated development of MPA management and urban development, the master plan for Nanji Town is revised with overlapping GIS sheets. In Sanya Site, relevant studies have been made for conserving coral reef ecosystems and sewage facilities are being built and operated for reducing land-based pollution impact on coral reef ecosystems and experimental transplanting of corals are made to facilitate the restoration of coral reef ecosystems at some hotspots. In Guangxi, as the three ecosystems of mangrove at Shankou, seagrass at Hepu and coral reefs around the Weizhou Island are in the same region, regional ecosystem-based and community-based management approaches have been encouraged. In this site, the participation of local communities in the management and sustainable alternative livelihood and the development of partnership with local villages and local industries in the development baseline surveys and monitoring plans could be summarized as a model for coordinating

the conservation and sustainable utilization of different ecosystems. In Dongshao-Nan'an Site, a new model for inter-provincial cooperation in the integrated coastal management and biodiversity conservation has been built with the signing by leaders of the two provinces for an inter-provincial action plan.

Thirdly, models for marine biodiversity conservation and management with international best practices and with potential for their dissemination to other parts of China's coastal water are forming. In the past three years, by following the design of demonstration models in the Prodoc, each site has been developing step by step its own models for demonstration. In the Prodoc, Nanji Site is assigned with the task develop a model Integrated township/MPA planning. In the past three years, the site has developed around the task an integrated framework with improved institutional capacity building, supportive local governments, science-based baseline and initial assessment and application of GIS overlapping in decision-making for sustainable MPA and Township development. Dongshan-Nan'ao Site is assigned with the task to develop a model of inter-provincial co-operation which is regarded as a breakthrough for trans-boundary biodiversity management and a starting point MPA networking in China. In the past three years, the site has developed around the task a cooperative mechanism among the governments at difference level and among different agencies with the assistance of public involvement and participation (such as fisheries associations and schools) and active publicity campaigns through a web site and training courses and dissemination of outreaches. Shankou Site is assigned with the task to develop a model of participatory management, alternative livelihoods and sustainable harvesting and MPA establishment with international best practices. In the past three years, the site has developed model of integrated and coordinated management of different ecosystems for biodiversity conservation with extended partnership with Village Conservation Groups and Stora Enso. Alternative livelihoods and sustainable harvesting have been developed among the villagers around the MPAs and best practices developed by IUCN and other international organizations have been turned into Chinese and applied in the course of MPA establishment in the waters around Weizhou Island. Sanya Site is assigned with the task to develop a model of integrated pollution control and Sustainable financing. In the past three years, the site has developed a framework for coral reef conservation and management with governmental supports in the construction of sewage treatment plants, participation and involvement of the tourism industry and biodiversity conservation promotion by volunteers and school pupils. The establishment of China's Training and Education Center for Marine Biodiversity Conservation and Ecosystem Management has formed an important window for the development of regional training and education and the dissemination of lessons learnt and demonstration models from the project. With the great support of the Third Institute of Oceanography, SOA, the technical support unit to SCCCBD, the Center has developed the curriculum, mechanism and operational mode for marine biodiversity conservation and ecosystem management on a platform of knowledge-sharing and education. Starting from serving the project, the center aims at a platform for regional training and education.

At the turning point from the First Phase to the Second Phase, SCCBD is consolidating the models and best practices developed in the course of the past 4 years such as the application GIS overlaps to Nanji Township Planning, the interprovincial cooperation for migratory species conservation, the co-management of coral reefs by MPA and tourism industry with government input for sewage treatment, and the better use of mangrove brand for alternative livelihood of local inhabitants and the publicity and awareness for the local officials, communities and students for marine biodiversity conservation. With shared languages and imported best practices in other parts of the world, SCCBD is developing modules for disseminating its lessons learned in the past years. By using the monitoring protocols developed specifically for SCCBD, each site is making assessment of the evolution of biodiversity since the implementation of SCCBD and making plans for the future four years with the intention to mainstream the plans for the conservation of marine biodiversity with government inputs under the umbrella of the strategic plans developed into the next five-year master plan, so as to sustain the project by guaranteeing the political and financial support from the central and local governments.