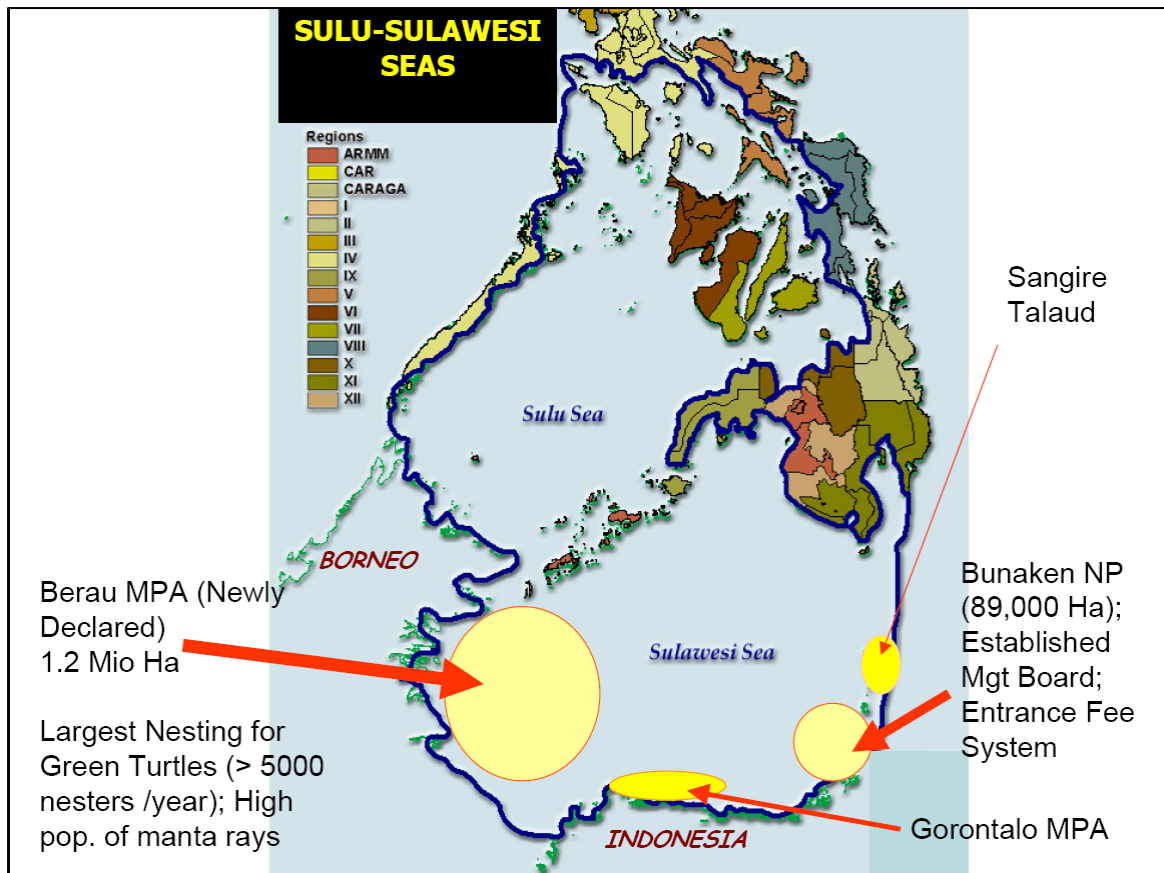


Conservation International - Indonesia
THE BERAU MARINE PROTECTED AREA

Established MPAs in the Sulawesi Sea Area

There are several MPAs established in the Sulawesi Sea being covered by Conservation International in Indonesia. These include the Sangire Talaud, the Bunaken National Park, the Gorontalo MOA and the Berau MPA. The map below, show the location of these MPAs which are being monitored by CI-Indonesia through the Sulu-Sulawesi Seascape Project and in cooperation with partners and stakeholders in the Sulawesi Sea area.



The Berau Marine Protected Area (MPA)

The Berau Marine Protected Area (MPA), in the Sulawesi Sea, is part of a tri-national sea turtle conservation corridor called the Sulu Sulawesi Seascape. It is situated along the coast of East Kalimantan, Indonesia. The MPA includes islands such as the diving destinations of Derawan, Sangalaki, Maratua, Panjang, and Semama. The 1.2 million hectare MPA serves as habitat for an abundant and diverse marine life, with countless unexplored submerged reefs and islets. It hosts numerous species of coral (347), mollusk (222) mangroves (26) and a variety of rare marine biota such as dugong, the highly endangered Napoleon wrasse, tridacna or giant clams, manta rays, dolphins, sharks, and nudibranchs.

Sangkalaki Island has the largest nesting and feeding site for the endangered green turtles and hawksbills in Southeast Asia for the endangered green turtle and for the hawksbill turtle. Approximately 5,000 female turtles nest in the islands every year. The unique island of Kakaban contains the world's largest and most diverse jellyfish lake, with four unique species of stingless jellyfish.

Points of interest:

- About 5,000 female turtles nest in Berau every year
- Four unique stingless jellyfish live in Kakaban lake
- Huge seagrass beds support great feeding areas for turtles
- Manta rays, dugongs, dolphins, sharks and various rare marine biota inhabit MPA

Threats to marine life and coastal communities

The turtle population in Berau is threatened by poaching, trading of turtle eggs and hunting of adult turtles. Although these activities have been banned and turtle nesting beaches are designated as protected, illegal poaching has persisted.

This further complicated by unsustainable fishing practices, including illegal destructive fishing (via explosives and chemicals), plus intensive fishing practices which place the marine environment at risk while simultaneously threatening the livelihoods of law abiding fishermen.

Marine biodiversity and ecosystems are also threatened by poorly planned coastal development and unsustainable land-use patterns in the Berau River watershed. Moreover, lack of resources to establish effective management practices and enforcement has hindered implementation of vitally needed protection of the Berau marine resources.

Significance Threats:

- Turtle poaching
- Turtle egg trading
- Poor land-use
- Over fishing

CI Indonesia's conservation enhancement initiatives

In response to such challenging threats, CI Indonesia supports local government and NGO partners, enabling them to enhance their efforts to establish effective management to protect the endangered sea turtles and their ecosystems in Berau. With university partnership, CI-Indonesia supported Udayana University's genetic molecular experts to initiate a turtle genetic mapping study in Berau. The study results intends to provide the Berau MPA management team with important scientific data to design an effective turtle protection and sea turtle marine protection area network.

CI has contributed to regular monitoring and surveillance of sea turtle habitat, and is also monitoring instances of destructive fishing in the islands of Bilang-bilangan, Mataha, Derawan, Sambit, and Blambangan islands where turtle egg concessions have been recently banned.

To gain support for conservation concepts, CI has facilitated dialogue among stakeholders on the benefits of turtle management for Berau. In the near future, a number of community-based activities will be implemented by partners at the local level. These activities will include community education on turtle conservation and how it affects their lives. In addition, to improve long-term management effectiveness of the Berau MPA, CI is planning to collaborate with TNC to build a floating surveillance and research vessel that supports the daily basis of Berau MPA's patrol system. Additionally, CI is providing support for a study on sustainable financing for Berau MPA, development of national turtle action plan, and a strategic plan to integrate the ecotourism sector with turtle conservation.

A Conflict Resolved: Turtle Eggs - Not for sale

Indonesian laws prohibits trading of marine turtle eggs. However, In violation of this national law, the local government of Berau issued permits to harvest turtle eggs on Sangalaki, Bilang-bilangan, Mataha, Sambit, Balikukup, Derawan, and dan Blambangan islands. For approximately 50 years, the Berau District obtained considerable income from selling the rights to collect turtle eggs. For example, the district government collected approximately \$90,000 in 1999. This illegally obtained revenue increased to \$105,000 in 2000.

Reacting to strong advocacy from conservation organizations, in 2001 the head of the Berau District instituted a ban on turtle poaching and egg harvesting, and designated Derawan and Sangalaki islands for full protection status while in other nesting islands, turtle egg concessionaires were instructed to set aside 20 percent of the turtle eggs and nests for conservation. Recently with help from CI, partners and effort of local stakeholders, these turtle egg concessions were totally banned from all known nesting islands in the Berau District.

ESTABLISHING PARTNERSHIPS: The Key to Making an MPA Work in the Tri-National Sea Turtle Corridor

Establishing and managing marine protected areas (MPAs) in the Tri-national Sea Turtle Marine Biodiversity Conservation Corridor requires four types of intervention:

- Strengthening of existing MPAs;
- Supporting the gazettelement of a new, large and co-managed MPA;
- Providing the science for the network of MPAs through species genetic mapping of sea turtles; and
- Designing an MPA network that will protect turtles in nesting habitats, foraging areas and migration routes.

Conservation International (CI) established partnerships with government and non-government organizations as well as academic and research institutions in the Philippines, Malaysia and Indonesia to make the above-mentioned interventions possible.

CI, Reef Guardians and the Philippines DENR-PAWB

In the Malaysian side of the Sulu-Sulawesi Seascape, CI joined forces with Reef Guardians, a local non-government organization in Sabah, Malaysia to step up the monitoring of green and hawksbills turtles in a relatively new MPA, the Sugud Islands Marine Conservation Area (SIMCA). SIMCA is the first and only non-government managed MPA in Sabah, where most MPAs are established and directly managed by the Malaysian government. With CI's support, Reef Guardians were able to link up with the Malaysia Government in Sabah to support the NGO-managed MPA. SIMCA is located about 80 kilometers off the Sandakan mainland and about 40 kilometers from the Turtle Island Park (Selingan, Gulisaan & Bakungan Kecil Islands), which is a major nesting and feeding area for the largest congregation of green (*Chelonia mydas*) and hawksbill (*Eretmochelys imbricata*) turtles in Southeast Asia.

The SIMCA MPA is currently threatened by rampant turtle egg poaching and other illegal and destructive fishing activities. Reef Guardians were able to link up with the Sabah Wildlife Department and the Police Field Force to maintain and intensify sea patrols as well as enforcement of marine laws in and around the MPA.

In the Philippine side of the Seascape, CI works closely with the Department of Environment and Natural Resources (DENR) through its Protected Areas and Wildlife Bureau (PAWB). Main focus of the partnership is to address conservation issues in the Turtle Islands Wildlife Sanctuary and develop a management plan for marine turtle conservation.

CI, Sabah Parks and WWF-Malaysia

CI, in partnership with Sabah Parks and WWF-Malaysia, supports the gazettelement (enactment into law) of the proposed Tun Mustapha Park, a 1.1 million-hectare park covering 50 islands and 63,790 hectares of marine waters.

In March 2003, the Sabah government gave notice of approval and declared its intention to declare the area as a marine park. Once this is done, the Tun Mustapha Marine Park will create a new paradigm for marine conservation by introducing the large managed-marine area concept, co-managed by local communities.

With the grant from CI, through the Sulu-Sulawesi Seascape Project, present efforts by Sabah Parks and WWF-Malaysia will support three focal activities:

- stakeholder consultations;
- research to determine turtle nesting sites within the park for consideration in the zoning plan; and
- compilation of information to write up the gazette document for submission to the state agency.

CI and Indonesia's Udayana University

In Indonesia, CI partnered with Udayana University to map out the genetic stock of green and hawksbill turtles to provide the scientific basis for establishing a network of MPAs for sea turtles in the Derawan Islands, Berau District, East Kalimantan, Indonesia. Different genetic stocks must be represented in the network of MPAs for turtles to safeguard the diversity of turtle species in the area.

The grant from CI makes it possible to map out the different areas that support the various developmental stages of marine turtles in the area. It is important that the network of MPAs for sea turtles to protect not just the nesting beaches but all other critical habitats as well which provide the needs of marine turtles to grow, mature and breed.

CI and the Marine Research Foundation (MRF)

The Marine Research Foundation is another NGO partner of CI in Malaysia. Through this partnership, MRF is drafting a design for an MPA network that will protect sea turtles in their nesting habitats, foraging areas and migration routes. While the completion of the MPA network design for the whole Tri-National Sea Turtle Corridor will require more time than the duration of the first phase of the Sulu-Sulawesi Seascape Project, suggestions can be made based on the information gathered from partners and stakeholders involved in the project.

At best, this phase of the SSS Project can provide some information for an MPA network within "pockets" of the corridor, such as in:

- the Derawan Group of Islands, Berau District in East Kalimantan, Indonesia where the MPA network will be based on genetic studies by Udayana University;
- the Semporna Peninsula in Malaysia, where the MPA network will be based on WWF-Malaysia's determination of turtle habitats;
- Kudat-Banggi in Malaysia, which has been studied by Sabah Parks and WWF-Malaysia in line with the gazette process of the Tun Mustapha Park;
- and the fisheries by-catch assessment of the Department of Fisheries (DOF)-Sabah in the different parts of the corridor, which will identify critical marine turtle habitats in fishing grounds to help fisheries by-catch reduction.

PARTNERSHIPS IN POLICY DEVELOPMENT

CI currently works with the Department of Fisheries (DOF)-Sabah to develop policies to protect marine turtles and other key species including their habitats in the Tri-national Sea Turtle Corridor. The grant from the CI-Sulu-Sulawesi Seascape Project shall enable the DOF-Sabah to assess the effects of various fishing gears such as long lines, gillnets, trawls and others on sea turtles, seabirds, small cetaceans, sharks and rays as well as other marine wildlife which are the usual by-catch of intensive fishing operations in the area. The study shall determine critical habitats of these by-catch species so that only appropriate fishing methods which enhance the sustainability of stocks can be used. Results of the study will help develop and implement by-catch reduction measures.

CI also helps in formulating an aquaculture development plan for the east coast of Sabah. Sabah has 61% of Malaysia's mangroves and 75% of its coral reefs. Aquaculture is a major development that will grow in the coming years. The plan will incorporate internationally accepted codes of practice and will issue guidelines in developing and establishing aquaculture farms in Sabah. Given that most mangrove areas in Sabah have adjacent seagrass beds and coral reefs that contribute greatly to fisheries production, the State Government of Sabah wants to ensure that aquaculture development will not adversely damage these critical marine ecosystems.

PARTNERSHIPS IN CAPACITY BUILDING

With the same group of partners in Malaysia, Indonesia and the Philippines, Conservation International (CI) through the Sulu-Sulawesi Seascape Project is also pursuing capacity building of stakeholder groups coming from the various national government organizations, non-government groups as well as those from the local government units and volunteers from local communities.

The Marine Research Foundation (MRF) in Malaysia conducted a Tri-National Sea Turtle Biodiversity Conservation Training in Kota Kinabalu, Sabah, Malaysia in September 2006. A total of 35 participants from the Philippines, Malaysia and Indonesia were trained on the biology, ecology and value of marine turtles, their attributes which affect conservation and management needs, community-based management, investigation and research methods, data analysis and more. The trained personnel are expected to echo the training to build capacity for the network of MPAs in the long term. The training also established a network of marine turtle conservationists and habitat managers in the Tri-National Corridor for the exchange of information, knowledge and learnings as well as open up discussions for a tri-national action plan for sea turtle conservation and institutional networking.

CI also works with Sabah Parks to determine the training needs related to sea turtle conservation and management in existing marine parks in Sabah, including the development of appropriate training modules and training of park staff and stakeholders. Sabah Parks will also conduct an awareness campaign to promote sea turtle conservation among local communities to develop and heighten the latter's appreciation for marine turtle conservation work.

In the Philippines, CI's partnership with the Department of Environment and Natural Resources (DENR) has already carried out marine turtle conservation and management training for park wardens, park superintendents and local stakeholders in the Turtle Islands Wildlife Sanctuary. With regards to sustainable financing, CI also works with WWF-Malaysia, which in turn is coordinating with Sabah Parks and the private sector to determine the cost of park management and find potential sources of revenue to support the Turtle Islands Park.

Overall, CI-Philippines is strengthening its role in the national and tri-national governance of the Sulu-Sulawesi Seascape, being a member of the Philippine Presidential Commission for Sulu-Celebes Seas while also representing the Philippines in the Tri-National Committee for the Sulu-Sulawesi Marine Ecoregion, respectively.

CI-Philippines has been officially recognized as a member of three Technical Working Groups under the Tri-National Committee that will establish the sub-committees on: (a) Endangered, Migratory and Charismatic Species; (b) Network of Marine Protected Areas; and (c) Sustainable Fisheries and Livelihood.