

Komodo National Park

Effective Marine Protected Area Management

park profile

park history established in 1980; declared a Man and Biosphere Reserve and World Heritage Site in 1986

location Lesser Sunda Islands

total area 450,000 acres

population about 20,000 people live in and around the park

exceptional biodiversity

1,000 fish species

260 reef-building coral species

70 sponge species

17 whale and dolphin species

Sea turtles

Dugongs

Komodo dragons

Various species of sharks and rays, including manta rays



Komodo National Park ©Djuna Ivereigh

Nestled in a volcanic chain known as the Lesser Sunda Islands, Indonesia's Komodo National Park encompasses nearly half a million acres of land and sea. Famous for its unique Komodo dragons, the park also features one of the world's richest marine environments, including coral reefs, mangroves, seagrass beds, seamounts, and bays. These habitats harbor more than 1,000 species of fish, 260 species of reef-building corals, and 70 species of sponges. In addition, dolphins, whales, and sea turtles are found in the park.

Since 1995, The Nature Conservancy, the Komodo Park Authority, local villages have been working to protect Komodo National park's di-

verse ecosystems from a variety of threats, including destructive fishing practices and over-fishing, which have severely damaged the park's coral reefs and fish populations. Through a combination of education, enforcement, and providing alternatives to destructive fishing, the Conservancy and its partners have helped reduce dynamite fishing by 90%. The corals are already showing significant signs of recovery.

Even with this important conservation milestone, Komodo continues to be at risk. Destructive fishing practices, although illegal, are still used in and around the park, destroying precious reef habitat. Overfishing, tourism growth, pollution, and



Underwater scene at Komodo ©Burt Jones and Maurine Shimlock/Secret Sea Visions

discharge from passing ships are other serious and emerging threats.

To protect Komodo's diversity of plant and animal species, in 2000 the Conservancy and the Park Authority developed a 25-year management plan for the park. With the management plan as a guide, the Conservancy is implementing a multi-faceted marine conservation program that addresses threats to Komodo's resources and engages local communities in protecting the park.

Park Financing

To help develop new sources of funding for Komodo, the Conservancy established a joint ecotourism venture with local stakeholders to collect park entrance fees from tourists. A portion of these fees will be used to support park management and develop a visitor's center. Ecotourism will not only generate funding for Komodo, it will also provide a source of environmentally sustainable income for communities and help build local involvement in park management.

Floating Ranger Stations

To prevent illegal fishing in Komodo, the Conservancy provides operational support to the Park Authority's patrolling efforts which consist of a team of park rangers, the Indonesian Navy, the police, and the

water police. Under this program, speedboats patrol the park weekly whereas larger vessels (so called "floating ranger stations") ensure more permanent presence of the Park Authority at vulnerable sites. These floating ranger stations have been very successful in enforcing the ban on destructive fishing, stopping 59 cases of illegal fishing and poaching in the last year alone.

Research and Monitoring

The Conservancy is conducting marine research and monitoring to track the success of the Conservancy's conservation work. After effective enforcement of the ban on blast fishing, live coral cover increased from 15 m² per 100 m² to 22 m² per 100 m² reef area. Unfortunately the fish monitoring program showed that the size and abundance of some fish species is still declining, probably as a result of continued hook-and-line fishing in some areas of the park. Cetacean surveys over the years 200-2003 have confirmed the presence of 17 species of whales and dolphins. Other monitoring programs focused on seagrass, mangroves, sea turtles, and mantas.

In addition to these biological monitoring programs, The Conservancy also monitors resource use patterns. During their rounds in the Park, park rangers record who is doing what and where in the Park.

Alternative Livelihoods

The Conservancy is working with local communities to develop alternatives to destructive fishing practices. One successful example is "fish aggregation devices" that gather fish in the open ocean, shifting fishing pressure away from fragile coral reefs. Other alternative livelihood projects include seagrass farming, souvenir carving and weaving, and tourism guide training.

Fish Culture Project

The Conservancy also established a sustainable fish culture project to farm fish for the international seafood market. Fish are hatched at the fish culture facility just outside the park and then transferred to local grow-out farms to be raised to market size and sold. This project will help ease the pressure of unsustainable fishing while bringing income to communities.

Community Outreach

The Conservancy coordinates awareness and education activities ranging from beach clean-ups to building community involvement in park management. In discussions with communities we often learn valuable information that helps us formulate effective resource management plans. The Conservancy also produce video documentaries that reach out to the general public and policy makers, and education materials, including comic books, to inform local communities about coral reef ecology and the dangers of destructive fishing.

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