



## bird's head seascape



Since 2004, Conservation International (CI) has led the Bird's Head Seascape (BHS) marine conservation initiative, which is located off of northwestern Papua, Indonesia in the heart of the Coral Triangle.

This initiative has focused on preserving 183,000 km<sup>2</sup> of the world's most biodiverse coral reefs and associated habitats by directly linking conservation strategies to the well-being of the seascape's inhabitants. The centerpiece of the initiative is a network of 10 multiple-use marine protected areas (MPAs) that together comprise over 3.5 million hectares and have been designed to provide long-term food security and other livelihood benefits for the Papuan communities that own the nearly 2,500 islands and reefs in the BHS.

No other reef system in the world can boast the biodiversity recorded in the BHS, including over 1,600 species of coral reef fish and more than 600 species of hard coral (>75% of the world's total species). The coral reefs and mangrove forests of the BHS are the life support system of the people of West Papua, providing a significant source of protein, jobs in marine tourism, and coastal protection from storms and tsunamis. Additionally, the carbon sequestration performed by the reefs and mangrove forests of the BHS (among the healthiest and most extensive in the world) is only now being recognized.

A guiding principle of the BHS initiative has always been that biodiversity conservation will only succeed to the extent that it can be made relevant to improving the human condition. The seascape's MPA network has extensive fisheries reserve areas

explicitly designed with local communities to ensure stock replenishment and provide long-term food security. The initiative has also succeeded in increasing marine tourism arrivals to the seascape by an order of magnitude since its inception, with a strong focus on creating livelihoods associated with marine tourism.

CI's focus on empowering local communities to gazette and manage their own MPAs has greatly strengthened the marine tenure rights of these Melanesian societies in the face of globalization. The MPA management plans we are helping to develop incorporate cutting-edge fisheries management theory while also reinvigorating traditional resource management systems and encouraging these communities to retain their cultural identity.

Revenues from the Raja Ampat tourism entrance fee system (>\$200,000/year), which CI developed, now fund a health care program for pregnant and nursing mothers in all 103 scattered villages of Raja Ampat as well as distribution of mosquito nets.

Extensive research on sea surface temperature variability and symbiotic zooxanthellae diversity has shown the reefs of the BHS to have strong resilience to coral bleaching; this research has also helped us in locating MPAs and developing zoning systems to maximize climate change resiliency. Our initiative has a strong focus on maintaining healthy fringing reefs so that upward coral growth can keep pace with sea level rise and thus help protect shorelines. Moreover, we are working closely with governmental spatial planning units to encourage more forward-thinking development paradigms including providing for large building setbacks in all coastal development.

Although the BHS is a marine initiative, our work also protects freshwater security in small island communities by maintaining healthy reefs and coastal

vegetation buffers to prevent saltwater intrusion into coastal wells, while also protecting coastal watersheds on larger islands from deforestation.

The BHS initiative uses a wide range of strategies that are grounded in our overall focus on developing the capacity of local communities to gazette and manage the BHS network of large-scale multiple-use MPAs. We also maintain a strong focus on policy engagement with governmental institutions at the local, provincial and national levels. We work with a strong network of partners including The Nature Conservancy and WWF-Indonesia, the West Papua Provincial Government and local regency governments in Raja Ampat, Kaimana, Manokwari and Teluk Wondama, as well as the Ministry of Fisheries and Department of Nature Conservation, local coastal communities and local NGOs like the Papua Sea Turtle Foundation, and the State University of Papua.

The seascape approach exemplified by the BHS is formally listed as one of the priority outcomes of the six-country Coral Triangle Initiative, and the Indonesian government's Ministry of Fisheries and Marine Affairs is now actively promoting the BHS as a new national model for a seascape approach to management of her vast marine resources. Marine management practitioners from around the country and from neighboring Coral Triangle countries like Timor Leste are now regularly visiting the BHS to learn from the initiative.



# demonstrating how **healthy ecosystems benefit human well-being** in Bird's Head Seascape

## human well-being

- Sustained fisheries
- Improved local livelihoods
- Resilient to climate change



## ecosystem services

- Connectivity of reefs and fish larvae
- Marine tourism
- Main source of protein



## healthy ecosystems

- 10 marine protected areas
- > 75% of the world's coral species
- Significant fish populations

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