

Minahasa Reef Ball Project

Largest of its Kind in the World



To date, approximately 3,000 of the reef balls, shown here, have been deployed.

MANADO, Indonesia—A project begun at the Minahasa mine in 1999 as part of an overall effort to enhance marine habitat is now the largest such private undertaking in the world.

The manufacture of reef balls, used to increase marine habitat and counter degradation of reefs resulting from unsustainable fishing practices such as bombing and poisoning of fish, is one part of Minahasa's overall Marine Habitat Enhancement program. With approximately 3,000 reef balls deployed to date, Minahasa's effort is second only to a reef ball project implemented by the Malaysian government.

The balls are manufactured by local people using moulds purchased by Newmont. The company also purchased the license for reef ball manufacturing and provided construction training to the local residents. In addition to providing direct employment, the successful deployment of the reef balls has meant increased, sustainable fishing in the area.

Additionally, micro-credit programs fund local fishing enterprises; providing money for boats, engines, and cold storage facilities to ensure long-term sustainability of the area's fishing industry.

The reef balls are deployed at three main locations—Buyat Bay, Sikot Bay and Selat Besar Bay. These sites are monitored regularly by divers using international

established protocols. The surveys are conducted by independent scientists, scientists from Sam Ratulangi University in Manado, and the staff of Minahasa's environmental department.

The success of the project resulted in agreements between Newmont and two diving centers in Manado for Newmont to provide 300 reef balls for establishment of two artificial reefs for the centers. Other coastal villages have also requested reef ball deployment in their local waters and plans are underway to extend the reef ball project to these villages as well.

The other main component of the Marine Habitat Enhancement program is mangrove rehabilitation and planting. Mangroves grow along the coast and their root structures help maintain and build coastlines. Harvesting of mangroves for construction materials has resulted in significant degradation of fish nursery and feeding habitat in coastal waters. As in the case of the reef ball project, mangrove planting is conducted by local people. Mangrove rehabilitation is planned for a total of five hectares in the local area. To date, one hectare has been rehabilitated and approximately 10,000 mangrove seedlings of local species produced in the community nursery.

The Minahasa Marine Habitat Enhancement program was recently submitted to be featured among projects showcased at the World Summit on Sustainable Development (WSSD) later this month in Johannesburg. ♦