Good practices... Newmont reef balls bring back the coral

Like other ICMM members, Newmont Mining Corporation is digging deep in its efforts to protect local environments. The company's web site describes many examples of initiatives to conserve local biodiversity, usually on land but in one recent case at the bottom of the ocean.

The example in question centres around the company's Batu Hijau Mine in Indonesia where coral reefs form a key part of the local ecosystem. Newmont's local company PT Newmont Nusa Tenggara (PTNNT) chose World Environment Day in January 2004 to launch an innovative reef ball program, designed to create a foundation for new coral and a habitat for fish and other aquatic life. To launch the project, 124 reef balls were placed in the bays of Maluk, Benete and Jelenga near Batu Hijau and the company is on target to produce and place 2000 of the man made balls by 2010.

"The program is designed to preserve and extend the coralreef area and develop a good habitat for the fish," explained Agus Setianto, an environmental specialist with PTNNT. Made from sand, cement, small stones and silica, the reef balls form an artificial base for new coral once they have been sunk into position. The coral is transplanted onto the reef ball by growing it in a special container and the success rate for growing new coral is this way is between 80 and 90%. The new coral helps fish stocks to recover, restoring the balance of ecosystems as well as providing an important food source for the local community.

Environmental commitment

As part of its environmental policy, PTNNT is committed to protecting coral reef in the waters around the Batu Hijau mine, which lies in the remote region of south western Sumbawa, one of around 17,000 Indonesian islands. "The coral reef conservation program is one of PTNNT's commitments to go beyond the requirements of regulation in our efforts to conserve the environment near the Batu Hijau mine," explained Kasan Mulyono, PTNNT's Manager of Public Relations.

"Reef balls accelerate the distribution and development of natural coral reef," says PTNNT manager of environmental affairs Grant Batterham. "It will improve the habitat of marine biota like fish, lobster and hard and soft corals, so increasing the fish population. This project will also increase the number of fish caught which is good for local fishermen and should attract more tourists."

The artificial balls are harmless to the environment and have been successfully used in other locations to protect marine ecosystems, including Newmont's Minahasa Raya facility in North Sulawesi. To ensure the project's success, continuous monitoring of the reef balls is essential. The data collected helps determine the placement of additional reef balls and provides valuable information to marine scientists. "The continuous monitoring includes observation and data collection of marine biota development," says Agus Setianto.

Positive results

The monitoring is already providing evidence of the project's success. Results demonstrate that marine biota have grown and thrived on the reef balls, including coral encrusting, soft coral, feather star and a variety of fish species. In fact, the reef ball approach is proving to be an effective way to improve coral ecosystems, not only in the bays off Batu Hijau but in various other parts of the world too.