



Picture caption: The assembled SCHOKI dive team attaching broken corals on to a coral-planting-table.

Diving for a good cause

A coral planting research team

The second part of the project took place underwater. A diving team was put together, which consisted of two students from the university of UKDW, three professional divers and an operative of the SCHOKI Team. Its mission was to accomplish two research theses and to support coral restoration at some reef spots.

As it was mentioned earlier, a lot of coral reefs are in bad conditions. This shouldn't be ignored too much, since coral reefs act as underwater forests, that are not only the source of food and protection for billions of fish; like trees, corals also have the ability to absorb CO₂. To understand the situation, the importance of the coral triangle of east Asia to the ocean can be compared to the importance of the amazon rain forest to the land life.

The reefs of Tolitoli are a part of this coral triangle. Therefore, it was important for the project team to also be active in this area.

The first research was accomplished to understand the actual condition of the corals in this area. For this, eight different reef spots around the island closest to the bay of Tolitoli were inspected. Each spot had a depth between six to eight meters and a length of 50 meters. At each point the team conducted a parameter recording, testing the waters salinity, PH value, dissolved oxygen, etc. Each meter was photographed to be analysed by a specific software. Through this, we would know not only the density and cover of the corals, but also its damage scale, and the cause of its damage. If they are broken through human activities, bleached or sick through for example turf algae.

Simultaneously this diving team was actively involved in coral planting. Like in every gardening we do in our garden, coral gardening is also depending on sunlight, nutrients, and the temperature of its surrounding. The small difference is, in our garden we don't have any currents or waves that could rip out our plants. Therefore, the most common way of coral planting is by attaching finger sized fragments of corals to a table-like structure that is being fixed onto the sea ground. Corals are slow growers. In good conditions corals grow around 1-10 cm in a year. That is why the maintenance of these coral tables are equally important as the first part.

The search of a save home

A thesis that supports the conservation of sea cows



ANALYZING SEA FOOD

The second research was conducted to support the conservation of sea cows (Dougong). These mammals are very gentle and shy creatures that are threatened with extinction. There are just a few spots in Indonesia where these animals feel at home, one of those places is on the coast of Tolitoli.

The idea of the research is to gather enough information and proof about a specific area, that is supposed to be a suitable conservation zone for sea cows. In this zone, human activities are reduced to a minimum. Ships and boats are only allowed to pass if it is absolutely necessary. Entering this zone by other accesses is only allowed with the supervision of a forest ranger. Besides, hunting the sea cows in this kind of areas would bring severe consequences for the hunters.

By this measure, the sea cows could have a habitat where they are not disturbed or even threatened. A place to recover or yet to breed.

This research, as an environment quality evaluation, is also done by the assembled dive team. The procedure is similar to the first research, only that this time the sea grass was being inspected, the food source of these sea cows. It is important to recognise the kind and density of the sea grass in this zone. The result of this research will then be presented to the local authorities that will hopefully decide to build a conservation area for these beautiful animals. Still, the research result of one zone is not enough to make this kind of decision. Other natural areas that are suspected to be good conservation areas, must be inspected as well.