

Coral Reef

Coral reefs disappearing

Fishing with cyanide

In the south-east of Asia, people live mainly on fishing, but the systems used are often very harmful to the reef, since cyanide and explosive are used to produce easier money. It has been calculated that between 1986 and 1991, 50% of the reefs of the Philippines was destroyed in this manner. Fishing with cyanide began in the Philippines in the early Sixties and supplies a market of one billion two hundred million dollars a year. In the beginning, this fishing method was used to take live fish for aquariums, then specialised in taking live fish, especially groupers, to be sold to restaurants. Selected and taken alive from the aquarium tank of the restaurant, some fish can cost up to 300 dollars a dish, sometimes becoming real status symbols, to be displayed at parties or important receptions. Even if fishing with cyanide is illegal in all Asian Pacific countries, it is still practised, above all in still untouched reef areas. The fishermen crumble up a cyanide tablet in a plastic bottle containing seawater, then plunge. When they find a prey, mostly hidden amidst the corals, they soak it with enough solution to stun it. The powerful poison is also dangerous for the fishermen who risk making contact with it during the operation. The stunned fish often ends up in hidden clefts and so the fishermen have to use hammers to break up pieces of coral. Dynamite is also used on reefs to break up coral blocks and rouse fish. This fishing method is not selective and also damages organisms that have no commercial value. Only in the Philippines are concrete measures beginning to be taken to discourage this fishing method: for instance, the Government is implementing courses to train fishermen on alternative fishing systems that are not harmful to the environment. In addition, inspections have been increased: a network of laboratories tries to find traces of cyanide on the fish sold. They are also trying to enforce the obligation to inspect the live fish that has to be sold and to hold environmental education courses in schools to raise the children's awareness on the damages caused by this fishing method.

Bleaching: whitening of coral

"Bleaching" is the term now commonly used to define the "whitening" of corals. In case of environmental stresses (for instance a temperature increase), coral polyps throw out the algae which live in symbiosis with them, the zooxanthellae, that give colour to the corals with their photosynthetic pigment. The consequence of such phenomenon is the coral colony losing its colour, sometimes becoming totally white. When like this, the coral is not dead; as soon as the conditions that caused this phenomenon cease, the algae re-colonise the polyps and the situation gets back as it was before. Otherwise, the coral will die. The main cause of the destruction of the reefs seems to be the increasingly high temperature of the oceans. In 1998, the "bleaching" phenomenon reached catastrophic proportions due to the passage of the Niño (a phenomenon which involves abnormal displacements of water in the oceans) which caused the mean temperature to increase by 2°C, thus making 90% of the coral die in some areas in the Indian Ocean. It is as if all of a sudden a millenary forest caught fire, thus causing an almost irreparable ecological damage. In addition, the damage is not just ecological or biological, reducing biodiversity, but it is also a socio-economic one for all those communities whose survival depends on the reef.