

ASSESSING REEF REHABILITATION WITH REEF CHECK By Gregor Hodgson: Institute for Environment and Sustainable Development, Research Centre, Hong Kong University of Science and Technology, Clearwater Bay, Kowloon. HONG KONG: Rehabilitation of marine ecosystems is expensive, and this is particularly the case with coral reefs. In cases where rehabilitation has been carried out, there must be some way to assess whether the investment was successful. In 1997, as part of the International Year of the Reef, a survey program called Reef Check was designed specifically to provide a quick view of the health of a cross-section of the world's reefs. Reef Check surveys using a single method were made at over 300 sites in 31 countries around the world that year. By using Reef Check survey methods alone, or in combination with others to monitor rehabilitated reefs, it will be possible to compare a variety of different reef types in most regions of the world. This should also assist in the assessment of rehabilitation efforts.

and Sustainable Development, Research Centre, Hong Kong University of Science and Technology, Clearwater Bay, Kowloon, HONG KONG:—Rehabilitation of marine ecosystems is expensive, and this is particularly the case with coral reefs. In cases where rehabilitation has been carried out, there must be some way to assess whether the investment was successful. In 1997, as part of the International Year of the Reef, a survey program called Reef Check was designed specifically to provide a quick view of the health of a cross-section of the world's reefs. Reef Check surveys using a single method were made at over 300 sites in 31 countries around the world that year. By using Reef Check survey methods alone, or in combination with others to monitor rehabilitated reefs, it will be possible to compare a variety of different reef types in most regions of the world. This should also assist in the assessment of rehabilitation efforts.

SOCIO-ECONOMIC AND BIOLOGICAL ASPECTS OF RESTORING FISHERIES PRODUCTION OF MANGROVE COCKLES (*ANADARA* SPP.) IN COSTA RICA By Maarten Kuijper¹ and Oscar Pacheco Urpi²: ¹IOC/WESTPAC, c/o National Research Council of Thailand (NRCT), 196 Phaholyothin Road, Chatujak 10900, Bangkok, THAILAND, ²Proyecto Desarrollo Rural Integral Peninsular, Apartado Postal 315, Puntarenas, COSTA RICA:—Mangrove cockles (*Anadara* spp.) constitute an important shellfish resource in Southeast Asia. It is less known, however, that some *Anadara* species are also caught on a commercial basis in estuarine areas on the Pacific coast of the tropical Americas. Although the quantities harvested are smaller, they do represent the main source of income for a significant number of marginalised fishermen and women. Lacking the financial resources for buying fishing gear, these people dedicate themselves predominantly to the harvesting of these bivalve molluscs. In Costa Rica, exploitation levels of mangrove cockles have in most places reached a stage where there are clear signs of over-fishing. The rehabilitation of coastal ecosystems is often perceived as restoring the physical appearance of an altered ecosystem with production considered to be a benefit in the long term. Restoring production, however, is a first priority for those local communities who depend on a particular ecosystem economically. In the framework of an integrated rural development project with a coastal zone management component, an attempt was made to improve the livelihood of the marginalised fisher-folk, while at the same time to develop strategies to ensure the recovery and sustainable production of the mangrove cockles. A one-year ban on mangrove cockle gathering was established during which participatory research was carried out on aspects of the population dynamics of the cockles. Although the ban was successful in terms of compliance on the part of the local community, natural recovery turned out to be insufficient to sustain previous fisheries exploitation levels once the ban was lifted. Community management was introduced as a strategy for sustainable production after the ban with varying success. Obstacles had to be overcome at all levels of government because co-management was a new concept in fisheries management for Costa Rica. Most problems arose, however, at the grass-roots level. Some of the implications of the introduction of co-management in Costa Rica are discussed. One of the outcomes of the study was the recognition of the need for an integrated coastal management approach covering the whole estuary. Steps are currently undertaken towards this goal.

THE REHABILITATION OF THE TAMPA BAY ESTUARY, FLORIDA, USA, AS AN EXAMPLE OF SUCCESSFUL INTEGRATED COASTAL MANAGEMENT By Roy R. Lewis III, P. Clark, W.K. Fehring, H.S. Greening, R. Johansson and R.T. Paul: Lewis Environmental Services, Inc., P.O. Box 20005, Tampa, FL, US 33622-0005, UNITED STATES:—The Tampa Bay ecosystem includes 967 km² of primarily unvegetated estuarine waters with an average depth of 3.5m, 72 km² of emergent coastal wetlands, and a 5700 km² watershed occupying a total area of 6739 km². Approximately 10% of the 967 km² of open water area (101 km²) have shallow (<2 m) shelves vegetated with seagrasses. The watershed supports a population (ca. 1995) of 2 million within the cities of Tampa, St. Petersburg, Clearwater, Bradenton and surrounding suburban communities. The estuary has been a major seaport for over 100 years. Currently the port is rated as the tenth largest in the United States in overall tonnage (52 million tons/year). The largest exports are phosphate rock and fertiliser products, while the largest imports are petroleum and coal. The main channel connecting the