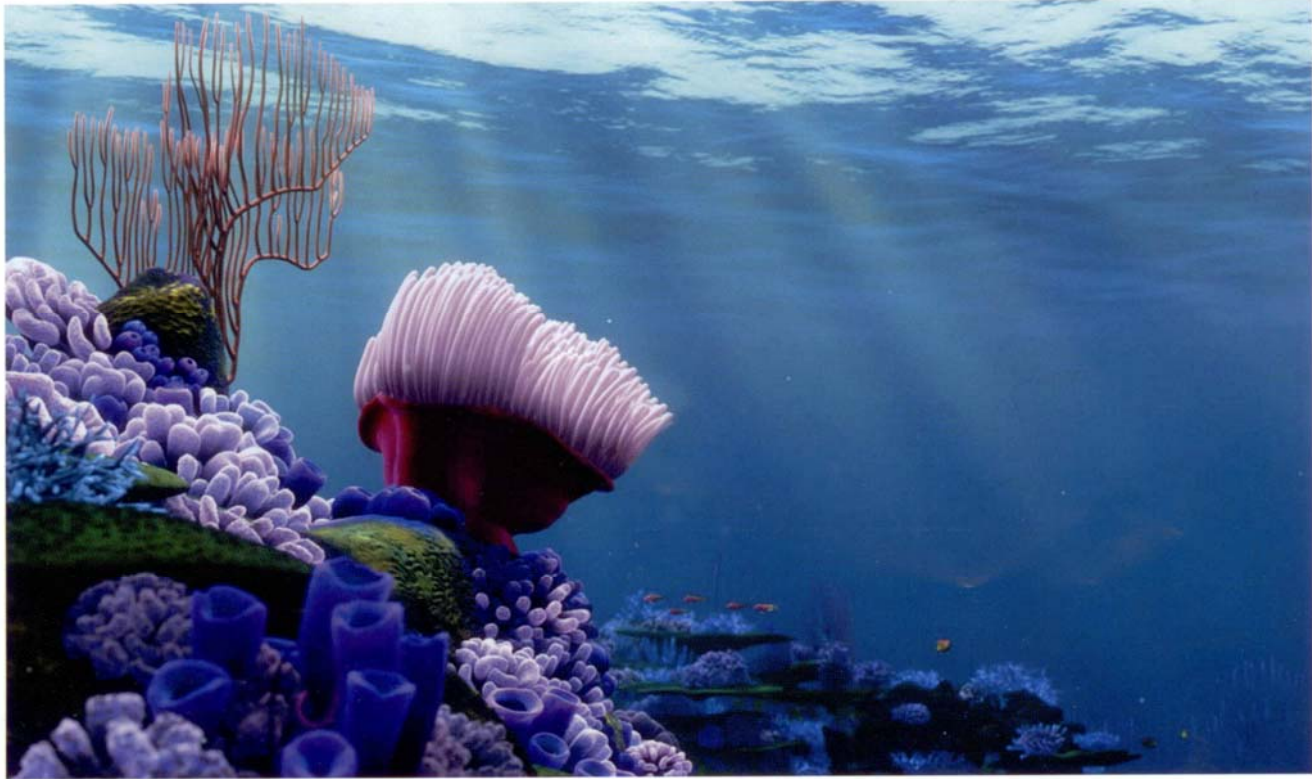


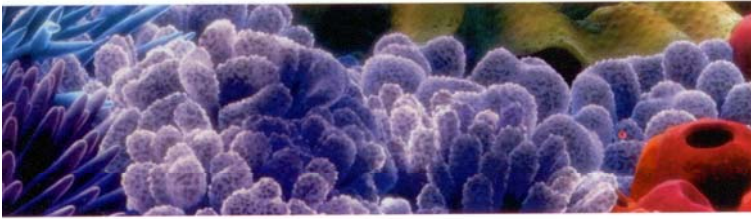


**Zayed International Prize
for the Environment**
In collaboration with
Kyodo International



A Workshop on
CHALLENGES IN THE OCEANS :
The Runde Reef System
29 - 30 May 2004

Together we make a difference



Introduction

Biodiversity and richness of Life in the Sea depend on the ecological balance. For many years, natural coral reefs and seabed have been destroyed by industrial activities, pollution, climatic change, misuse of fishing gear like bottom trawlers, change of sea currents due to erosion, land reclamation and other activities.

Mankind has exploited the Sea for generations and this has resulted in reduced availability of marine resources and in many areas created an unbalanced ecosystem.

Construction of artificial reefs to increase the marine life has been tried out for many years, and in general with good results. However, in many places such artificial reefs have been constructed from various kinds of waste material like old cars, old vessels, construction material and so on. Using the seabed as a dumping place for unwanted waste is not a good idea. In addition to adding more pollution to the Sea, it has been almost impossible to conduct any scientific investigation in such areas. One very important factor when building artificial reefs is the possibility to extract scientific bio data, which is of great importance for successful cultivation of the oceans and seabed.



Runde Reef

Reef System

The founders of Reef System have gone a long way in order to build artificial reefs that can be used for different purposes. The main product is the Runde Reef, named after the beautiful Island Runde located on the west coast of Norway.

Runde Reef is a typical habitat reef with a large growing surface area of 250m² and 340 meters of cavities. There is already some interesting bio data available from a test installation of the Runde Reef

in Norway. Another reef type is the Grip Reef, which is especially made for erosion prevention, in addition to providing ideal habitat for growth of marine life.

All the artificial reefs constructed by Reef System are easy to handle, easy to relocate and easy to remove. Made of fiber-supported concrete and recy-





pled polyethylene, it gives the reefs a long life span and does not pollute the environment.

Harvesting the ocean

Over the past decades, fish farming and shell fish farming has become giant industry in certain countries. The Seabed underneath these farms is being destroyed by various factors like high concentrations of unconsumed feedstuff, excrements of the fish, use of antibiotics and so on. Artificial reefs prevent the destruction of seabed and provide an environment for other species that can be harvested like lobsters and crabs.

New land .. New opportunities!

Many artificial islands are being constructed for the purpose of making a beautiful place to live and enjoy life. But, what about the sea surrounding them? How much attention has been given to the life underneath the blue surface? By creating new land, one is also creating new opportunities for what can be done with the sea. We believe that the value of these islands and the standard of living on them will be a much better one if attention is also given to the sea surrounding the island. Creating artificial reefs in connection with these islands might give us a fantastic scuba diving environment and place for sport fishing, something that will attract even more people. At the same time, these artificial reefs will enhance the underwater environment, giving us a living Sea.

Workshop Objectives:

- To shed light on the concept of Sea cultivation and artificial reefs
- To introduce the new models of artificial reefs manufactured by Reef System
- To evaluate the results of field tests done in Europe compared to other models.

- To explore the suitability of the new system to the Gulf region.

Keynote Speakers:



Professor Christopher C. E. Hopkins

Professor Hopkins has an eminent international record of 25 years in marine environmental management and policy, including 6 years as a senior diplomat heading an intergovernmental marine scientific and advisory organization. Since January 2000, he has been a Founding Director of AquaMarine Advisers in Sweden, which works on marine environmental and living marine resources policy and management issues.

Mr. Erik Hempel



Mr. Hempel has a broad background as an independent consultant in fisheries and aquaculture industries. His company, Hempel Consult, has been engaged in various projects around the world on behalf of international organizations like THE WORLD BANK, FAO, INFOPECHE, UNCTAD, GATT, NORAD, IMAC, etc., and worked in Sri Lanka, Malaysia, Morocco, Tanzania, Gambia to mention some areas and now engaged in Namibia. He is a member of the Board of Directors of the Royal Supreme Seafood, (an aquaculture production and seafood processing company operating in Norway and China).



Workshop Program:

This workshop will emphasize the cultivation of the seas by introducing new artificial reefs created especially for increasing habitat areas for richer marine life.

Venue : Dubai Police Academy Conference Hall

Saturday 29 May 2004

- 1000-1030 Registration
1030-1050 opening session
1050-1150 Refreshments
Developments for sustainable use, conservation and enhancement of marine environment & living resources
1130-1200 Status of the living resources and major threats in the Arabian Gulf
Dr. Walid Hamza, Head Dept. Of Biology UAE University
1200-1230 Environmental Precautions of the Palm Project

Dr. Imad Haffar

R+D Manager, Nakheel

- 1230-1300 Discussion
1300-1430 Lunch break
1430-1450 Look to Norway Mr. Erik Hempel
1450-1510 Presenting SINTF (Scandinavian Research Institute)

Armel Loth

- 1510-1535 Sea Cult? Vision and concept of artificial reefs/Presentation of field tests in Norway/Partners behind the Reef Systems

Erik Hempel/Sintef

- 1536-1600 The need for cultivating the ocean

Prof. Chris Hopkins

- 1600-1620 Break
1600-1620 Panel Discussion: Join opportunities for cultivating the Arabian Gulf
1720-1730 Closing of workshop

Sunday 30 May 2004

- 1030 Meeting at the Palm project-Jumeirah
1100-1300 Excursion



Zayed International Prize for the Environment

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