

The International Coral Reef Initiative

The Value of Coral Reefs

Coral reefs, that cover about 1 million square kilometers, are built up by coral organisms producing their own mineral substrate. With thousands of different species living in the same environment, coral ecosystems - along with tropical forests - are the most highly diversified and complex on the planet. They are also among the most productive, in terms of gross organic production, and as such are often likened to an oasis of life in an otherwise rather barren tropical ocean environment.

Besides their ecological value, coral reefs are of major economic, social and cultural importance to the countries they surround. Almost half a billion people - 8 percent of the total global population - live within 100 kilometers of a coral reef and about 100 developping countries are highly dependent on coral reefs for their livehood. Many islands, like atolls, are formed exclusively from coral materials, and owe their very existence to their coral reefs. Coral reefs are of crucial importance as natural barriers protecting shorelines, ports, harbours, cities, from destructive storms and waves, especially in cyclone areas. Coral reefs are the main source of food for countless island inhabitants: 90 % of all animal protein consumed in the Pacific islands is from marine species. Worldwide, the potential sustainable yield of reef resources (fish, crustaceans and molluscs) represents approximately 10% of the world annual total. Reefs support other important economic activities such as pearl industry. With some of the most spectacular marine landscapes in the world, and the white sand beaches they maintain, coral reefs are an invaluable asset to local tourism and leisure industries: snorkeling, scuba diving, recreational fishing provide high benefits to most countries with coral reefs. Reefs also have a great potential, still not explored, for new medicines.

According to one estimate, reefs habitats provide humans with living resources (such as fish) and services (such as tourism returns and coastal protection) worth about \$375 billion each year.

State of the reefs

The recent report "Reefs at Risk" presented an assement of potential threats to coral reef ecosystems around the world. The results indicated that:

- Fifty-eight percent of the world's reefs are potentially threatened by human activity ranging from coastal development and destructive fishing practices to overexploitation of resources, marine pollution, and runoff from inland deforestation and farming.
- · Coral reefs of Southeast Asia, the most species-rich on earth, are the

Coral reefs are in serious decline globally, especially those near shallow shelves and dense populations. It has been estimated that 10 percent of the Earth's coral reefs have already been seriously degraded and 58% are seriously threatened. If this decline is unchecked, it will lead to the degradation of most of the world's reef resources during the next century.





most threatened of any region. More than 80 percent are at risk (under medium and high potential threat), and over half are at high risk, primarily from coastal development and fishing-related pressures.

- Overexploitation and coastal development pose the greatest potential threat of the four risk categories considered in the study. Each, individually, affects a third of all reefs.
- The Pacific, which houses more reef area than any other region, is also the least threatened. About 60 percent of reefs here are at low risk.
- Outside of the Pacific, 70 percent of all reefs are at risk including. Nearly two-thirds of Caribbean reefs.
- At least 11 percent of the world's coral reefs contain high levels of reef
 fish biodiversity and are under high threat from human activities. These
 "hot spot" areas include almost all Philippines reefs, and coral communities off the coasts of Indonesia, Tanzania, the Comoros, and the Lesser
 Antilles in the Caribbean.

In 1998-1999, 40-50% of the world's reefs have been hit by severe to catastrophic bleaching, (loss of photosynthetic pigment) with massive mortality, probably due to the high water temperatures in combination with meteorological and climatic factors.

The International Coral Reef Initiative

The Government of the USA, along with the governments of Australia, France, Jamaica, Japan, The Philippines, Sweden and the United Kingdom and agencies such as the World Bank and UNEP, recognising the growing problem, initiated ICRI in order to stop and reverse the global degradation of coral reefs and related ecosystems. ICRI is not a permanent structure or organisation, but an informal network that aims to mobilise governments and a wide range of other stakeholders in an effort to improve management practices, increase capacity and political support, and share information on the health of these ecosystems. ICRI does not develop and fund proposals, but ensures that the needs of the developing world concerning their coral reefs are conveyed to operational and funding organisations

In 1995, 40 countries adopted a 'Call to Action', which urged governments to sign on for concerted action to conserve coral reefs, and a 'Framework for Action' which listed achievable objectives for governments, donors and funding agencies, development organizations, NGOs, the research community and the private sector, to work together for sustainable development of coral reef resources.

In 1998, The International Tropical Marine Ecosystems Management Symposium (ITMEMS) brought together people from 49 countries who reported that the status of coral reefs throughout the world had not improved over the preceding 4 years and that more urgent action was required to reverse the alarming trend in reef degradation. ITMEMS participants unanimously reaffirmed the 'Call to Action' and 'Framework for Action' and added a series of urgent tasks to ICRI and the ICRI Secretariat.



Bleaching of corals

Lessons for successful management (ITMEMS, 1998)

Successful integrated management requires coordination and linkages to other programs, initiatives and legal instruments.

Stakeholder partnerships and community participation are essential elements for effective management and require the development of culturally sensitive processes of empowerment.

Public awareness and education, including capacity building, are required to highlight the problem and to support effective management

Data and information, in accessible and understandable forms, and from a wide range of sources, are fundamental to successful management.



Corals broken by anchors

Reaffirmation of the Call to Action and Framework to action: the priority issues

Issue: Ignorance is destroying coral reefs and related ecosystems.

Issue: Pollutants, including sediments and nutrients from land-based human activities, severely threaten the health of coral reef ecosystems.

Issue: Destructive and unsustainable fishing practices, such as cyanide, explosives, trawling and other forms of drag-netting, as well as overexploitation, are destroying coral reefs and related ecosystems.

Issue: Activities of the private sector, including tourism and the trade of coral reef products, can protect or destroy coral reef ecosystems.

Issue: An ecosystem approach to management is needed to conserve and restore the values and functions of coral reefs and related ecosystems.

Issue: Recognition of traditional knowledge and management systems is vital.

Issue: Projects have failed because they have not taken into account socioeconomic and cultural factors.

Issue: Managers and communities are not getting the information and management tools they need to make sound management decisions.

Response: Launch multi-faceted, global-to-local-level mass marketing awareness campaigns to change the behaviour of people. Bridge the gap between global knowledge and local action through the creation of national coral reef initiatives.

Response: Develop and implement equitable, participatory, integrated coastal management that incorporates watersheds.

Response: Commit to eliminating fishing practices that are not demonstrably sustainable, by promoting effective enforcement, alternative methods and market incentives.

Response: Work with the private sector to foster appreciation of the value of coral reefs and encourage the private sector to use and protect coral reefs and related ecosystems in ecologically sustainable ways by introducing incentives, such as awards and certification for better environmental practices.

Response: Implement an integrated approach to management that includes effective marine protected areas, including no-take zones, as a vital component in managing human activities within larger biogeographic frameworks.

Response: Increase the confidence and capability of communities to sustainably manage and conserve resources through capacity building and validation of their traditional practices Integrate traditional and modern approaches to management for effective results.

Response: Socioeconomic and cultural factors are essential components in developing community-based management programs, for tailoring management to local conditions, and for demonstrating the value of tropical marine ecosystems to policy makers and users.

Response: Create and use networks of knowledgebased management systems through networks of people, ideas and information to promote sciencebased management and public participation in that process. Issue: Data produced by the GCRMN, ReefCheck and other innovative programs have proven the value of monitoring to global reef assessment and local management, but more widespread monitoring is needed

Issue: Lack of funding undermines actions to address threats to coral reefs, monitor their health, and assess the impact of management practices.

Issue: Coral reefs are the life support systems for the existence of small island developing states and many coastal communities of developing tropical countries.



The participants of the International Tropical Marine Ecosystems Management Symposium, in their Renewed Call to Action, call upon governments, United Nations agencies, bilateral and multilateral financial institutions, scientists, NGOs, local communities and the private sector to implement the 1995 Call to Action and the Framework for Action, taking into account the Renewed Call to Action and working group Priority Actions produced at ITMEMS. Further, we call upon the global community to re-commit to urgent action to address the threats to coral reefs and tropical marine ecosystems.

Response: Strengthen biophysical and socioeconomic monitoring efforts on all scales to improve management effectiveness. Secure long-term financing.

Response: Develop financing in a strategic manner at local, regional and international levels.

Response: Urge governments that support the goals of ICRI to promote consideration of this report during the next session of the Commission on Sustainable Development as part of its review of Small Island Developing States, Oceans and Sustainable Tourism issues in 1999. The CSD is urged to recognise this vital relationship and support immediate and effective action to understand and address the threats to these ecosystems.

Urge governments to promote ICRI goals within the World Heritage and Ramsar Conventions, in implementation of the Convention on Biological Diversity and its Jakarta Mandate as well as other relevant international and regional instruments.



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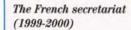
How does it work? the ICRI Secretariat and CPC

The implementing ICRI authorities are the Coordinating and Planning Committee (CPC) and its Secretariat.

The ICRI Secretariat has the important function of catalysing operational activities formulated in the international and regional strategies. Guidance in carrying out these tasks is provided by the voluntary Coordination and Planning Committee (ICRI CPC), which meets twice per year.

The CPC members are representatives from the founding Countries, multilateral Banks, International Agencies, NGOs, scientific bodies and the private sector. They also emphasise strong regional representation, with one from each ICRI region (usually the coordinator at the UNEP Regional Seas Office) and at least a representative of one other country from that region.

The first Secretariat was hosted by the Department of State of the US Government - 1994 to September 1996. The second Secretariat was hosted by the Great Barrier Reef Marine Park Authority of the Australian Government - September 1996 to December 1998. The third Secretariat is now hosted by the French Ministry of the Environment and operated by CEDRE from January 1999 until the end of 2000.



Denis VENE Co-chair of the ICRI-CPC Secretariat Head of the International Affairs Department, Ministère de l'Aménagement du Territoire et de l'Environnement. FRANCE.

Professeur B. SALVAT Co-chair of the ICRI-CPC Secretariat Ecole Pratique des Hautes Etudes, Perpignan, FRANCE.

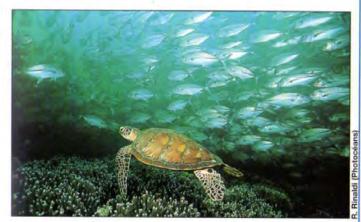
Geneviève VERBRUGGE Secretary Policy Advisor in the International Affairs Department, Ministère de l'Aménagement du Territoire et de l'Environnement, FRANCE.

Francis STAUB CEDRE



The 1999 and 2000 key objectives

- · to continue to focus global attention on the declining status of the world's coral reefs and promote the practical solutions that must be implemented immediately to reverse the reef decline:
- to establish operational ICRI networks at international and regional scales to coordinate the key objectives of implementing integrated coastal management, building capacity, conducting effective research and monitoring, promoting awareness amongst all stakeholders and involving the private sector, especially the tourism industry:
- · to catalyse the development and funding of regional programmes and projects through these networks that will allow partners of ICRI to cooperate in the conservation and sustainable development of coral reefs and related ecosystems.



ICRI Networks

The ICRI Global Coral Reef Monitoring Network (GCRMN) was established in 1996 under the Intergovernmental Oceanographic Commission (IOC-UNESCO), the World Conservation Union (IUCN) and UNEP. The aim of the network is to provide reliable data to support decisions on longterm coral reef management, by defining and implementing environmental monitoring and research strategies. GCRMN made significant progress in implementing coral reef monitoring around the Indian Ocean and South Asia, and in parts of Southeast Asia, the Pacific Ocean and the Caribbean. The GCRMN, at government level, and "REEFCHECK", another monitoring network at communities and volunteers level, have now combined forces to form a comprehensive monitoring program.

An awareness raising network (ICRIN - International Coral Reef Information Network) will complement the existing capacity in ICRI for creating public awareness.

ICRI-CPC Meetings (1999-2000)

15-16 March 1999: Paris 28-29 october 1999 : Guadeloupe, French West Indies 25-26 May 2000: New Caledonia October 2000: meeting at the 9th International Coral Reef Symposium

International forums

ICRI recommendations have been promoted at the UNEP governing council, at the Commission on Sustainable Development (April 1999) and at the Second Global Meeting of Regional Seas Conventions and Action Plans (5-8 July 1999).





International Coral Reef Initiative Web Site http://www.environnement.gouv.fr/icri



ICRI Web Site Summary

What is ICRI Renewed Call to Action Partners of ICRI Secretariat News ICRI Activities 1995-1998 Partnership Forum ICRI links

Bibliography

- · International Coral Reef Initiative, 1995. The Call to Action and the Framework for action.
- International Coral Reef Initiative, 1998. Renewed Call to Action. International Tropical Marine Ecosystems Management Symposium, Australia, Nov. 1998: 40 pp.
- UNEP/IUCN, 1988. Coral Reefs of the World. Volume 1: Atlantic and Eastern Pacific;
 Volume 2: Indian ocean, Red Sea and Gulf; Volume 3: central and western Pacific.
 UNEP Regional Seas Directories and Bibliographies. IUCN, Gland, Switzerland and Cambridge, United Kingdom/UNEP, Nairobi, Kenya.
- World Resources Institute, 1998. Reefs at risk. 56 p.
- WILKINSON et al, 1998. Status of coral reefs of the world. C. Wilkinson ed.: 184p.
- · See also: http://www.environnement.gouv.fr/IFRECOR



ICRI - Ministère de l'Aménagement du Territoire et de l'Environnement

S.A.I. - 20, Avenue de Ségur - 75302 PARIS 07 SP - FRANCE

Tel: +33-1-42-19-17-75 / Fax: +33-1-42-19-17-72

Email: ICRI@environnement.gouv.fr CEDRE: http://www.ifremer.fr/cedre