

21. SPONSORING ORGANISATIONS, CORAL REEF PROGRAMS AND MONITORING NETWORKS

AFD - AGENCE FRANÇAISE DE DÉVELOPPEMENT

This French government agency contributes to the economic and social development of more than 80 developing countries and the French overseas departments and territories. Total commitments in 2003 were EUR1393 million. It is both a public establishment and a specialised financial institution, and is responsible for France's official development assistance. AFD provides financial assistance for public and private projects in many sectors, including: water resources; finance; urban and rural development; and access to social services (health, education). AFD cooperates with other funding agencies e.g. European Investment Bank, the Asian Development Bank, the European Commission, and administers the French GEF Secretariat (French Fund for World Environment), which integrates environmental considerations within development programs. After the initial focus on terrestrial environmental programs (e.g. forestry, protected area management), AFD now includes marine ecosystems in its portfolio and launched the French Coral Reefs Initiative for the South Pacific (CRISP) in 2002. Contact: Dominique Rojat, AFD Paris; rojatd@afd.fr; www.afd.fr.

AGRRA – ATLANTIC AND GULF RAPID REEF ASSESSMENT

International scientists and managers collaborate via AGRRA to determine the regional condition of reefs in the Caribbean and Gulf of Mexico using a rapid assessment protocol. AGRRA seeks to provide baseline data on coral reef health by visual assessments of coral cover, coral mortality, coral recruitment, macro-algal index, sea urchin density, abundance and size of key fish families. Consistency between observers is ensured through training workshops. AGRRA surveys have been made at 720 reef sites throughout the Western Atlantic: Bahamas, Belize, Bonaire, Curacao, Cayman Islands, Costa Rica, Cuba, Jamaica, Mexico, Panama (Bocas and San Blax), Puerto Rico, St. Vincent, Turks and Caicos, US Virgin Islands, US Florida Reef Tract and Flower Gardens and Venezuela. All survey results are in a database to be released in 2005. Special issue #496 of the Atoll Research Bulletin contains the results of the first 20 areas assessed and a synthesis of these findings. Regional comparisons can be made by examining many reefs, but cause and effect relationships are pending further analysis. Contact: Robert Ginsburg, agrra@rsmas.miami.edu or by mail, 4600 Rickenbacker Cswy. Miami, FL 33149 or Judith Lang, JandL@rivnet.net; <http://mgg.rsmas.miami.edu/agrra/index.html>

AIMS - AUSTRALIAN INSTITUTE OF MARINE SCIENCE

AIMS is one of Australia's key research agencies and particularly committed to marine research in the tropics. AIMS undertakes research and development to generate new knowledge in marine science and technology, and to promote its application in industry, government and

environmental management. The research program involves medium- to long-term research that is geared towards improved understanding of marine systems and the development of a capability to predict the behaviour of complex tropical marine systems. In the past 25 years, the Institute has established a sound reputation for high quality research on coral reef and mangrove ecosystems, and on the water circulation around our coasts and continental shelf. Researchers have not only published extensively in scientific journals but have also written field guides, books and monographs for regional use. A major theme is developing and applying monitoring methods to assist in the sustainable management of tropical marine resources. AIMS supports a wide range of studies for effective coral reef management. Contact: AIMS, PMB #3, Townsville 4810 Australia; www.aims.gov.au

CARICOMP - CARIBBEAN COASTAL MARINE PRODUCTIVITY PROGRAM

This is a 25 member regional network established in 1986 by a group of marine laboratories, parks and reserves with the support of IOC-UNESCO. CARICOMP monitors long-term variation in ecosystem structure and function in coral reefs, seagrasses, and mangroves according to standardised protocols in relatively undisturbed sites. The network also responds to regional events such as coral bleaching events and hurricanes. The Caribbean Coastal Data Centre at the University of the West Indies in Kingston, Jamaica archives the data and makes them available. CARICOMP contributes data to ReefBase and initiated the GCRMN in the Caribbean. In 2000, CARICOMP designed and initiated several sub-regional research projects, including studies of larval linkages and coral diseases, related to long-term management and restoration of Caribbean coastal ecosystems. These projects are being expanded. The CARICOMP program networks institutions in 18 countries: Bahamas, Barbados, Belize, Bermuda, Cayman Islands, Colombia, Costa Rica, Cuba, Dominican Republic, Haiti, Jamaica, Mexico, Netherlands Antilles, Panama, Puerto Rico, Trinidad and Tobago, USA, and Venezuela. Contacts: John Ogden, jogden@seas.marine.usf.edu; Loureene Jones, Caribbean Coastal Data Centre, Jamaica, loureene.jones@uwimona.edu.jm; George Warner, Centre for Marine Sciences, UWI, Jamaica, gfwarner@uwimona.edu.jm; www.uwimona.edu.jm/centres/cms/caricomp/ ;

CBD - CONVENTION ON BIOLOGICAL DIVERSITY

Biological diversity, the variability among living things and the ecosystems that support them, is the foundation upon which human civilizations have been built. Sustaining that biodiversity, in the face of considerable threats from human activities, constitutes one of the greatest challenges of the modern era. CBD arose from the Earth Summit in Rio de Janeiro in 1992 and has 188 Parties to this international legally binding treaty with virtually universal participation. The objectives of CBD are: the conservation of biological diversity; the sustainable use of its components; and the fair and equitable sharing of the benefits arising out of the use of genetic resources. The Convention sets out broad commitments by governments to take action at the national level for the conservation and sustainable use of biological diversity. Since entering into force, the Parties have translated the Convention into work programs, including one on marine and coastal biological diversity, which addresses coral reef issues through work plans on coral bleaching and the physical degradation and destruction of coral reefs. Contact: Marjo Vierros, CBD Secretariat Montreal, Canada, marjo.vierros@biodiv.org or www.biodiv.org

CI - CONSERVATION INTERNATIONAL

CI is a global, field-based environmental organisation that promotes the protection of biological diversity. Working in more than 30 countries over 4 continents, CI applies innovations in science, economics, policy and community participation to protect the Earth's richest regions of plant and animal diversity. The Marine Rapid Assessment Program (RAP) of the Center for Applied Biodiversity Science at CI organises scientific expeditions to document marine biodiversity as well as freshwater and terrestrial biodiversity hotspots, and tropical wilderness areas. Their conservation status and diversity are recorded using indicator groups (molluscs, corals and fish), and the results are combined with social, environmental and other ecosystem information to produce recommendations for protective measures to local communities and decision-makers. The main focus of Marine RAP surveys has been the 'coral triangle' in Southeast Asia, which contains the richest coastal and marine biodiversity in the world. Contact: Sheila McKenna, Conservation International, 1919 M St. NW, Washington, DC 20036 USA; www.biodiversityscience.org and www.conservation.org, s.mckenna@conservation.org

CORAL - THE CORAL REEF ALLIANCE

CORAL is a member-supported, non-profit organisation based in California that is dedicated to protecting the health of coral reefs by integrating ecosystem management, sustainable tourism, and community partnerships. By targeting marine recreation providers, coral park managers, and other community stakeholders, CORAL's programs build cooperative solutions to the challenges facing coral reef destinations around the world. Training, technical assistance, and financial resources provide the basis for building cooperative management strategies, sustainable tourism, and community led conservation projects that improve the health of reefs and the sustainability of reef tourism. In addition, CORAL builds public awareness about coral reefs through various outreach programs, such as the highly acclaimed Dive In To Earth Day. Together, CORAL and its partners are working hard to keep coral reefs alive. Contact: Brian Huse, bhuse@coral.org; www.coral.org

CORDIO - CORAL REEF DEGRADATION IN THE INDIAN OCEAN

This is a regional, multi-disciplinary program developed to investigate the ecological and socio-economic consequences of the mass coral bleaching in 1998 and subsequent degradation of coral reefs in the Central and Western Indian Ocean. CORDIO is an operational unit within ICRI, with objectives to determine the: biophysical impacts of the bleaching and mortality of corals and long-term prospects for recovery; socio-economic impacts of the coral mortality and options for mitigating these through management and development of alternative livelihoods for peoples dependent on coral reefs; and prospects for restoration and rehabilitation of reefs to accelerate their ecological and economic recovery. CORDIO assists and coordinates with the GCRMN in the Indian Ocean with monitoring and running the Node in East Africa, the Indian Ocean Islands and South Asia. The participating countries are: Kenya, Tanzania, Mozambique, Madagascar, Seychelles, India, Maldives, Sri Lanka, Reunion, Comores, Mauritius and Chagos. Program co-ordination contacts: Olof Lindén, World Maritime University, Malmo, Sweden, olof.linden@cordio.org; David Souter, University of Kalmar david.souter@cordio.org; South Asia: Jerker Tamelander, IUCN South Asia, 53 Horton Place, Colombo 7, Sri Lanka, jet@iucnsl.org; East Africa: David Obura, CORDIO East Africa, P.O. Box 10135, Bamburi, Kenya, dobura@africaonline.co.ke; Island States: Rolph Payet, Ministry of Environment, Seychelles, ps@env.gov.sc

CRC REEF - COOPERATIVE RESEARCH CENTRE FOR THE GREAT BARRIER REEF

CRC Reef Research Centre is a knowledge-based partnership of coral reef managers, researchers and industry, which provides research solutions to protect, conserve and restore the world's coral reefs by ensuring industries and management are sustainable and ecosystem quality is maintained. The needs of end-users are incorporated into the design, instigation and progress of research. CRC Reef Research Centre is in Townsville, Australia and its partners have internationally-recognised expertise in coral reef science, technology and management, and provide education and training to tourism and fisheries industries, and coral reef managers. It is a collaborative venture with researchers (Australian Institute of Marine Science; James Cook University, Queensland Department of Primary Industries and Fisheries), the tourism industry (Association of Marine Park Tourism Operators), the commercial and recreational fishing industry (Sunfish Queensland, Queensland Seafood industry Association), managers (Great Barrier Reef Marine Park Authority), and non-government organisations (Great Barrier Reef Research Foundation). Contact: Russell Reichelt, CRC Reef Research Centre, PO Box 772, Townsville 4810 Australia; info@crcreef.com or www.reef.crc.org.au

GBRRF – GREAT BARRIER REEF RESEARCH FOUNDATION

The Foundation was established in 1999 to raise and aggregate funds for strategic research into coral reefs and foster a co-operative and integrated approach to that research amongst the universities, marine institutions and museums of Australia. The Directors and benefactors of the GBRRF are also concerned to develop opportunities to export, wherever possible, the scientific, management and humanitarian benefits of funded research to developing countries, many of which have economies heavily dependent on healthy reef systems. The GBRRF currently sources financial support and sponsorship from individuals, corporations, Trusts, Foundations and Government, and the Board of Directors is drawn from the foremost ranks of Australian business and philanthropy. The GBRRF is also supported by some of Australia's most eminent marine scientists who act as its International Scientific Advisory Committee (ISAC) and scrutinise all activities, projects and programs supported by the Foundation. Contact: Judith Stewart, Managing Director, Great Barrier Reef Research Foundation, Level 20, 307 Queen Street, Brisbane QLD 4000, Australia; judith.stewart@barrierreef.org or www.barrierreef.org

GCRMN - GLOBAL CORAL REEF MONITORING NETWORK

The GCRMN was formed in 1995 as an operational unit of ICRI. The GCRMN is in partnership with ReefBase, Reef Check, CORDIO and NOAA, which constitute the central direction. The GCRMN is sponsored by IOC-UNESCO, UNEP, IUCN, CBD, the World Bank, AIMS, WorldFish Center, the ICRI Secretariat, and central coordination is supported by the U.S. Department of State and the National Oceanic and Atmospheric Administration through contributions to UNEP. IUCN currently Chairs the Management Group of the GCRMN, and the Global Coordinator is hosted at AIMS and IMPAC and interacts closely with the WorldFish Center. The GCRMN seeks to encourage and coordinate three overlapping levels of monitoring:

- Community - monitoring by communities, fishers, schools, colleges, tourist operators and tourists over broad areas with less detail, to provide information on the reef status and causes of damage using Reef Check methodology and approaches;

- Management - monitoring by predominantly tertiary trained personnel in government environment or fisheries departments, and universities for moderate coverage of reefs at higher resolution and detail using methods developed in Southeast Asia or comparable methods;
- Research - high resolution monitoring over small scales by scientists and institutes currently monitoring reefs for research.

Equal emphasis is placed on monitoring to gather ecological and socio-economic data, with manuals available for both. A major objective is to produce 2 yearly national, regional and global Status of Coral Reefs Reports, such as those that form the basis for this report. The GCRMN functions as a network of independent Regional Nodes that coordinate training, monitoring and databases within participating countries, and institutes in regions based on the UNEP Regional Seas Program:

- Red Sea and Gulf of Aden - Middle East assisted by the Regional Organisation for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA) Contact: Abdelelah Banajah, Abdelelah.Banajah@persga.org; or Abdullah Alsuhaibany, abdullah.alsuhaibany@persga.org;
- The Gulfs – the Persian/Arabian Gulf, Gulf of Oman and the Arabian Sea - assisted by Regional Organisation for the Protection of the Marine Environment (ROPME). Contact: Hassan Mohammadi, ropme@qualitynet.net; or Peyman Eghtesadi, eghtesadi@inco.ac.ir
- Eastern Africa – assisting Kenya, Mozambique, South Africa and Tanzania operating through the CORDIO network in Mombasa. Contact: David Obura in Mombasa, dobura@africaonline.co.ke;
- South Western Indian Ocean Island States - coordinating Comoros, Madagascar, Mauritius, Reunion and Seychelles with assistance from the Global Environment Facility and Indian Ocean Commission. Contact: Jude Bijoux, j.bijoux@scmrt-mpa.sc or Rolph Payet, rolph@seychelles.sc
- South Asia - for India, Maldives and Sri Lanka with support from the CORDIO program of SIDA and IUCN. Contact: the Regional Coordinator in Colombo, Jerker Tamelander, jet@iucnsl.org or Arjan Rajasuriya, Arjan@Nara.Ac.Lk
- South East Asia - for the ASEAN countries with assistance from the ICRAN project and the WorldFish Center, Penang Malaysia. Contact: Karenne Tun, Regional Coordinator, k.tun@cgiar.org or Chou Loke Ming, National University of Singapore, dbsclm@nus.edu.sg
- East and North Asia - Japan is assisting these countries via the Ishigaki International Coral Reef Research and Monitoring Center, and the Nature Conservation Bureau in Japan. Contact: Tadashi Kimura, tkimura@jwrc.or.jp or Keisuke Takahashi, KEISUKE_TAKAHASHI@env.go.jp
- Southwest Pacific and Melanesia, for Fiji, Nauru, New Caledonia, Samoa, Solomon Islands, Tuvalu and Vanuatu coordinated through the Institute of Marine Resources, University of the South Pacific and support from Canada. Contacts: Tim Pickering, pickering_t@usp.ac.fj, or Reuben Sulu sulu_r@usp.ac.fj, Ed Lovell for Reef Check (lovell@suva.is.com.fj);

- Southeast and Central Pacific, the ‘Polynesia Mana Node’ for the Cook Islands, French Polynesia, Kiribati, Niue, Tokelau, Tonga and Wallis and Futuna coordinated in French Polynesia from the CRIOBE-EPHE Research Station on Moorea. Contact: Bernard Salvat bsalvat@uni-perp.fr, or Caroline Vieux, carolinevieux@hotmail.com
- Northwest Pacific and Micronesia, the ‘MAREPAC Node’ for American Samoa, the Marshall Islands, the Federated States of Micronesia (FSM), the Northern Mariana Islands (CNMI), Guam and Palau. Contact: the Palau International Coral Reef Center, Jason Kuartei, jkuartei@picrc.org
- Hawaiian Islands – for US islands in the Pacific. Contact: Ruth Kelty, Ruth.Kelty@noaa.gov, or Mark Monaco, mark.monaco@noaa.gov, or Athline Clark, Athline.M.Clark@hawaii.gov
- U.S. Caribbean – for U.S. territories and states of Florida, Flower Garden Banks, Navassa, Puerto Rico, and U.S. Virgin Islands. Contact Ruth Kelty, Ruth.Kelty@noaa.gov, or Mark Monaco, mark.monaco@noaa.gov or www.coralreef.gov/
- Northern Caribbean and Atlantic region coordinated through the Caribbean Coastal Data Centre, Centre for Marine Sciences, Jamaica for the Greater Antilles to Bermuda. Contact: Loureene Jones, loureene.jones@uwimona.edu.jm or George Warner, gfwarn@uwimona.edu.jm
- Mesoamerican Barrier Reef System for Mexico, Belize, Guatemala, Honduras. Contact: Alejandro Arrivillaga, MBRS Project office, Belize, aarrivillaga@mbrs.org.bz or Melanie WWF Mesoamerican Reef Program, mcfield@bt.net
- Eastern Caribbean, for the Organisation of Eastern Caribbean States (OECS), Trinidad and Tobago, Barbados, and French and Netherlands Caribbean Islands, coordinated by CANARI, with support from UNEP-CAR/RCU from St Lucia. Contact: Allan Smith, ahsmith@candw.lc; Claude Bouchon, claude.bouchon@univ-ag.fr; Paul Hoetjes, milvomil@cura.net
- Southern Tropical America Node for Costa Rica, Panama, Colombia, Venezuela and Brazil via the ‘Instituto de Investigaciones Marinas y Costeras’ (INVEMAR) with support from UNEP-CAR/RCU. Contact: Jaime Garzón-Ferreira, jgarzon@invemar.org.co, and Alberto Rodríguez-Ramírez betorod@invemar.org.co.

Central Coordination contact: Clive Wilkinson Global Coordinator at the Australian Institute of Marine Science, in Townsville c.wilkinson@aims.gov.au; or Jamie Oliver at WorldFish Center in Penang Malaysia (j.oliver@cgiar.org); or Gregor Hodgson, University of California, Los Angeles, rcheck@ucla.edu, or Leah Bunce, NOAA Silver Springs Maryland USA, Leah.Bunce@noaa.gov; or Olof Linden, Olof.Linden@wmu.se; home page: www.gcrmn.org

ICRAN - INTERNATIONAL CORAL REEF ACTION NETWORK

ICRAN is a public/private partnership response to the International Coral Reef Initiative’s (ICRI) Call to Action to conserve and manage coral reefs worldwide. Initiated with generous support from the United Nations Foundation, ICRAN’s strategic alliance approach has been developed to ensure the future of coral reefs and related ecosystems and the future of the communities they sustain. This strategy includes alternative livelihoods, training, capacity-building, and the exchange and application of traditional knowledge, and current scientific, economic and social information. Examples of ICRAN activities are evident in many of the ‘special sites’ at the

end of regional chapters in this report. The ICRAN partners are: CORAL, GCRMN, ICRI, MAC, Reef Check, SPREP, UNEP, UNEP-WCMC, TNC, UNF, WorldFish Center, WRI and WWF. E-mail: Kristian Teleki, kteleki@icran.org; www.icran.org

ICRI - INTERNATIONAL CORAL REEF INITIATIVE

ICRI is a response to the global degradation of coral reefs and related ecosystems. It is a partnership of countries, international organisations, NGOs and regional seas programs created in 1994 following calls at the 1992 UNCED Rio Earth Summit and by Small Island Developing States. The initial partners were Australia, France, Jamaica, Japan, Philippines, Sweden, UK and USA, along with CORAL, IOC-UNESCO, IUCN, UNDP, UNEP, and the World Bank. The prime function of ICRI is to implement UNCED recommendations, and other international conventions and agreements, raise awareness of coral reef degradation and prompt action by governments and other stakeholders. ICRI functions through its members and operational networks, ICRAN, CORDIO and GCRMN to: advocate coral reef conservation in international fora; facilitate collaborative action and information exchange; increase funding for coral reefs; improve management practices; and increase capacity and political support. ICRI, with guidance from the Co-ordination and Planning Committee (a consensus grouping of partners) assists production of the Status of Coral Reef of the World reports and uses it to raise awareness. The ICRI 'Agenda' formulated in Dumaguete City, Philippines in 1995 as the ICRI 'Call to Action' and 'Framework for Action', was updated at International Tropical Marine Ecosystems Management Symposium (ITMEMS) in Townsville, Australia in 1998 (the ICRI Renewed Call to Action) and at ITMEMS2 in Manila in 2003. The Secretariat implements the 'Agenda' through rotating hosts (Governments of USA, Australia, France, and jointly by Sweden and the Philippines). The Secretariat is currently co-hosted by the United Kingdom and the Seychelles; Japan and Palau will host the Secretariat from July 2005. Contact: Robert Baldi, robert.baldi@defra.gsi.gov.uk, www.ICRIForum.org

ICRIN - INTERNATIONAL CORAL REEF INFORMATION NETWORK

ICRIN is a coral reef outreach and awareness building program, which provides tools and resources to non-profit community groups, educators and coral park managers to support their local and regional outreach initiatives. ICRIN also provides general coral reef information to the public and policy makers via the Internet, targeted presentations and materials, and by sponsoring local events and activities. ICRIN is the outreach component of ICRAN and ICRI. Contact: icrin@coral.org; or www.coralreef.org

IFRECOR - FRENCH CORAL REEFS INITIATIVE

IFRECOR is the national program for coral reefs in French tropical overseas territories. IFRECOR, launched in 1999 by the Ministries of Environment and Overseas Territories, developed a National Coral Reef Action Plan to be coordinated by a secretariat in the two Ministries. A national steering committee contains members of parliament, other ministries, social and natural scientists, and NGOs to recommend tasks under the plan. The IFRECOR budget was Euro 2 million over the last 4 years for activities within the 7 French overseas territories with coral reefs. Each territory has a local committee of stakeholders to implement coral reef management. IFRECOR has been successful in raising public awareness of the importance of coral reefs, establishing a French coral reef monitoring network, exchanging coral reef experiences between overseas territories, promoting sustainable uses, involving local communities, and conserving coral reefs. IFRECOR promotes French scientific and technical

knowledge at international levels, encourages the participation of French coral reefs specialists in research, assists in developing and managing coral reefs in other countries, and participates in international coral reef monitoring. Since its establishment, IFRECOR, has catalysed an increasing the commitment by government and overseas territories to protect coral reefs and designate MPAs. Contact: Bernard Salvat, Ecole Pratique des Hautes Etudes, Université de Perpignan, France, bsalvat@univ-perp.fr

IMPAC - INTERNATIONAL MARINE PROJECT ACTIVITIES CENTRE

IMPAC aims to further the sustainable development and conservation of critical coral reef, mangrove forest and seagrass bed habitats, and their fisheries. The specific focus is on providing training in oceans policy and governance of tropical coastal resources. IMPAC is a collaboration centre for international agencies focused on assisting people with sustainable livelihoods and in conserving resources of the tropical Indo-Pacific. The associates include: International Ocean Institute-Australia, the Regional Centre for Australia and the Western Pacific; The Nature Conservancy Science Coordinator for the Asia-Pacific & California Marine Protected Area program; and Global Coordination of the GCRMN, in association with the principal host, the Australian Institute of Marine Science. IMPAC is a non-profit subsidiary of the CRC Reef Research Centre Ltd. Contact: Clive Wilkinson, IMPAC Coordinator, c/o Australian Institute of Marine Science, P.O. Box 772, Townsville 4810, clive.wilkinson@impac.org.au; www.impac.org.au

IOC/UNESCO - INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION

The IOC/UNESCO is the United Nation's focal point for marine science, research and observations to provide better knowledge about ocean resources, their nature and sustainability for marine management and policy development. Key priorities involve building national capacities to address the World Summit of Sustainable Development's Plan of Implementation, the role of Small Island Developing States, and the Millennium Development Goals. IOC/UNESCO assists in the development of coral reef monitoring and data management, with equal emphasis on ecological and socio-economic information. A particular focus is understanding the role of reef-dependent poor coastal communities in conservation and development. IOC, with UNEP, IUCN and the World Meteorological Organisation formed the Global Task Team on Coral Reefs in 1991 to develop global coral reef monitoring, which was the precursor to the GCRMN, with IOC, UNEP, IUCN, World Bank and the CBD now as co-sponsors. The GCRMN contributes data on coral reef health and resources to the Global Ocean Observing System. Contact: Ole Vestergaard, IOC/UNESCO, 1 Rue Miollis, 75015 Paris, France.o.vestergaard@unesco.org; www.ioc.unesco.org,

IOI - INTERNATIONAL OCEAN INSTITUTE

IOI is an independent, international non-governmental organisation with a network of 25 centres around the world, 10 of which are in developing countries with significant areas of coral reefs. The IOI mission is to promote education, training and research to enhance the peaceful use of ocean space and its resources, as well as the protection and conservation of the marine environment, guided by the principle of the Common Heritage of Mankind. IOI (Australia) is assisting countries, particularly Small Island Developing States, in the development of policies designed to conserve and sustainably manage coral reefs. IOI also encourages coastal communities to establish MPAs, and develop alternative livelihoods designed to reduce the pressure on scarce coastal resources. Contact: Robin South, IOI-Australia, robin.south@impac.org.au, www.impac.org.au/associates; www.ioi.org

ISRS - INTERNATIONAL SOCIETY FOR REEF STUDIES

ISRS (founded in 1980) is the leading organisation for professional scientists and students of coral reef studies, with a membership of more than 1000 from 60 countries. The Society promotes the production and dissemination of scientific knowledge and understanding of coral reefs, both living and fossil. This includes occasional and consensus discussion papers on emerging issues e.g. coral reef fisheries (Box p 29 and p 82). It prints and distributes the journal *Coral Reefs* and the magazine *Reef Encounter*, and offers major research awards and travel support for students. It also assists institutions in developing countries to develop their library resources. It grants the prestigious Darwin Medal for major contributions to coral reef studies, and coordinates and assists host countries with the four yearly International Coral Reef Symposia. E-mail: Peter Mumby, p.j.mumby@exeter.ac.uk; Web site: www.fit.edu/isrs/

IUCN - THE WORLD CONSERVATION UNION

Founded in 1948, IUCN brings 1035 States, government agencies and NGOs from 181 countries together in a unique global partnership to influence, encourage and assist societies conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. Its contributions include generating conservation knowledge, setting standards, developing and applying conservation tools, building capacity, and improving policies and global governance. The secretariat is located in Gland, Switzerland, and there are 42 regional and country offices and 10,000 volunteer experts within 6 Commissions, including the World Commission on Protected Areas (WCPA) and the Species Survival Commission (SSC), which focus on particular species, biodiversity conservation and the management of habitats and natural resources. The IUCN Global Marine Program links the members to all IUCN marine activities, including projects and initiatives of the regional offices and Commissions. The program is anchored in IUCN Headquarters, with most of the technical staff in regions with significant marine constituencies and issues. IUCN is a founding member of the GCRMN and the Head of the Marine Program chairs the Management Group. Contact: Carl Gustaf Lundin, Global Marine Program IUCN - The World Conservation Union, Rue Mauverney 28, CH-1196 Gland, Switzerland, Marine@iucn.org

JAPAN - MINISTRY OF THE ENVIRONMENT

The Ministry of the Environment is responsible for environmental policies ranging from waste management to nature conservation in Japan. The Nature Conservation Bureau of the Ministry is responsible for conservation of natural environments including coral reefs and related ecosystems. The Bureau has conducted a national survey of Japanese coral reefs and produced coral distribution maps. In addition, the Bureau has initiated coral reef rehabilitation projects since 2002. The International Coral Reef Research and Monitoring Center, established on Ishigaki Island, is the East Asia Seas Regional node of GCRMN to promote international and domestic coral reef monitoring. The Ministry of the Environment, on behalf of the Japanese Government, will host the next ICRI Secretariat (July 2005 to June 2007) in cooperation with the Republic of Palau. Contact: Biodiversity Planning Division, Nature Conservation Bureau, Ministry of the Environment, 1-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8975, Japan; coral@env.go.jp; www.env.go.jp/ and www.coremoc.go.jp/

MAC - MARINE AQUARIUM COUNCIL

This is a multi-stakeholder, not-for-profit NGO created to ensure the global marine aquarium trade is sustainable by creating standards and certification for all those involved in the trade from reef to aquarium. MAC brings together the aquarium industry, hobbyists, conservation organisations, government agencies, public aquariums, and international organisations to ensure sustainability of the trade through a process of certification and market incentives. Reef conservation is enhanced because certified reef areas must be managed, include fish reserves, not use destructive methods, promote sustainable livelihoods and poverty alleviation, and support communities. MAC launched 3 Certification Standards in 2001 on: Ecosystem and Fishery Management Standard; Collection, Fishing and Holding Standard; Handling, Husbandry and Transport Standard; and Mariculture and Aquaculture Management is pending. Collectors, exporters, importers and retailers in the Philippines, Fiji, North America and Europe have been certified, and commitment indicated by 100 other companies in 20 countries. MAC has offices in USA, UK, Philippines, Fiji and Indonesia. Contact: Paul Holthus, Marine Aquarium Council, 923 Nu'uuanu Ave, Honolulu, HI 96816, USA; www.aquariumcouncil.org, info@aquariumcouncil.org

NOAA - NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION USA

NOAA is an agency of the Department of Commerce dedicated to enhancing public health and safety and promoting sound economic interests by researching and predicting weather and climate-related events and protecting the coastal and marine resources of the USA. NOAA is a steward of U.S. marine resources and co-chairs the U.S. Coral Reef Task Force, which is responsible for coordinating U.S. Government efforts to conserve coral reefs. The NOAA Coral Reef Conservation Program (CRCP) addresses priorities in the National Action Plan to Conserve Coral Reefs and the National Coral Reef Action Strategy such as mapping, monitoring, research, education and managing reef resources. The CRCP facilitates and supports partnerships with scientific, private, government and NGO groups at local, state, federal and international levels. The goal is to support effective management and sound science to preserve, sustain and restore valuable coral reef ecosystems. Contact: NOAA Coral Reef Conservation Program, 1305 East-West Highway, N/ORR, Silver Spring, MD, 20910 USA; coralreef@noaa.gov; www.coralreef.noaa.gov.

NORWAY - MINISTRIES OF FOREIGN AFFAIRS AND ENVIRONMENT

The Royal Ministry of Foreign Affairs, established in 1905, is responsible for Norway's Strategy for Environment in Development Cooperation, which promotes the integration of environmental considerations in multilateral programs through multilateral/bilateral support and co-financing. The main objective of Norway's environmental assistance is the sound management of the global environment and biological diversity. Norway supports the UNEP 'African Process on development and protection of the marine and coastal environment in Africa' and bilaterally supports activities in the Gulf of Guinea, Mozambique, Tanzania, Angola, Namibia, South Africa, Sri Lanka, Vietnam, Indonesia, and China, which include coastal zone management and the establishment of MPAs. Contact: Norwegian Ministry of Foreign Affairs, PO box 8114 Dep., N-0032 Oslo, Norway; post@mfa.no; www.mfa.no

The Royal Ministry of the Environment, established in 1972, has responsibility for the Norwegian biodiversity policy and action plan; the action plan includes cross-sectoral responsibilities and coordination within the Government. The national target is to halt the loss of biodiversity

by 2010. Basic elements of Government marine policy are sustainable management of the marine resources and implementation of an ecosystem approach. Protection of coral reefs is especially important both nationally and internationally due the vulnerability of coral reefs and their ecological and socio-economic importance. Norway has protected 6 cold-water coral reefs in national waters since 1999 and started preparation of a national network of MPAs, which will include coral reefs. Norway joined ICRI in 2004. Contact: Norwegian Ministry of the Environment, P.B. 8013 Dep., 0030 Oslo, Norway, postmottak@md.dep.no; www.odin.dep.no/md/engelsk/bn.html

PACKARD FOUNDATION

The David and Lucile Packard Foundation is a private Foundation based in California. It established the Western Pacific Coastal Marine Conservation Program in 1998 with the goals of long-term conservation and responsible stewardship of critical coastal marine habitats and resources, especially coral reefs and seagrasses in 7 countries in the Western Pacific: Palau; Federated States of Micronesia; Philippines; Papua New Guinea; Solomon Islands; Fiji; and eastern Indonesia. The program's funding strategy focuses on: improving individual technical skills for effective conservation and resource management; supporting networks of marine protected areas; and developing a range of targeted, applied research and analysis initiatives to provide useful information for practitioners, policy-makers, and local community members. Contact: www.packard.org

RAMSAR - CONVENTION ON WETLANDS

The Ramsar Convention on Wetlands, was signed in Ramsar, Iran in 1971 and broadly defined 'wetlands' to include all 'areas of marine water the depth of which at low tide does not exceed six metres' (Article 1.1). It also explicitly allows the inclusion of 'coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands' (Article 2.1). Thus coral reefs figure prominently as Number 3 amongst the categories of marine and coastal wetlands, with some of the important international wetlands containing coral sites located in Australia, Brazil, Costa Rica, Cuba, Djibouti, Ecuador, France, Guinea, Honduras, Islamic Republic of Iran, Mexico, Nicaragua, Philippines, South Africa, Thailand, The Netherlands, United Kingdom and Venezuela. In several of these countries the sites go deeper than 6 m in accordance with Article 2.1. Contact: Margarita Astralaga, the marine focal point, Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland; astralaga@ramsar.org; www.ramsar.org/types_coral.htm

REEF CHECK FOUNDATION

Reef Check is a global environmental group established to facilitate community education, monitoring and management of coral reefs. Reef Check is active in more than 70 coral reef countries and territories, where it seeks to: educate the public about the coral reef crisis and how to prevent it; create a global network of volunteer teams which regularly monitor and report on reef health under the supervision of scientists; scientifically investigate coral reef processes; facilitate collaboration among academics, NGOs, governments and the private sector to solve coral reef problems; and stimulate community action to protect remaining pristine reefs and rehabilitate damaged reefs worldwide using ecologically sound and economically sustainable solutions. Under the ICRI framework, Reef Check is a primary GCRMN partner and coordinates GCRMN training programs in ecological and socio-economic monitoring, and coral reef management throughout the world. Contact: Chris Knight, PO Box 8533, Calabasas, CA 91372; rcinfo@reefcheck.org; www.ReefCheck.org

SIDA & SAREC - SWEDEN

The Swedish International Development Cooperation Agency (Sida), and its Department for Research Cooperation (SAREC) assist developing countries alleviate poverty and achieve sustainable development. Environmental aspects are integrated in all development cooperation programs to ensure compliance with Agenda 21 and other environmental conventions. The Marine Science Program has actively promoted research cooperation and capacity building for Integrated Coastal Zone Management in eastern Africa, the western Indian Ocean and southeast Asia. National support for marine science is given to Vietnam, Sri Lanka, Mozambique and Tanzania. Many coastal projects and regional workshops are supported through the Marine Science for Management Program (MASMA), coordinated by the Western Indian Ocean Marine Science Association (WIOMSA) (www.wiomsa.org). MASMA allocates grants to researchers at national institutes on the western side of the Indian Ocean. The program's long-term objective is to improve the use of marine and coastal resources to combat poverty and environmental degradation. Sida is also the main supporter of the program Coral Degradation in the Indian Ocean (CORDIO). Contact: Håkan Berg, Sida – SAREC, SE-105 25 Stockholm; hakan.berg@sida.se

TNC - THE NATURE CONSERVANCY

The mission of TNC is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. TNC launched the Global Marine Initiative in 2002 to protect marine plant and animal life and safeguard the global benefits. The Conservancy operates 100 marine conservation projects in more than 21 countries and 22 U.S. states; they work with partners across seascapes and landscapes through transformative strategies and integrated planning and action. The focus is on: 1. setting priorities for marine conservation using ecoregional assessments and newly pioneered planning tools; 2. transforming coral reef conservation by establishing resilient networks of marine protected areas; 3. conserving and restoring estuarine and coastal ecosystems by utilizing innovative new methods; and 4. building support for marine conservation through strategic partnerships and working to shape global and national policies. TNC is committed to being a partner to find means to make the increasing use of the ocean compatible with marine conservation. Contact: Lynne Hale, Global Marine Initiative, The Nature Conservancy, URI Narragansett Bay Campus, Narragansett, USA: marine@tnc.org, www.nature.org/marine

TOTAL CORPORATE FOUNDATION

This marine biodiversity Foundation was established in 1992 following requests from Total employees for a visible commitment to the environment. The main focus is the preservation of marine and coastal species, specifically: *Biodiversity*, which recognises that human progress has occurred in parallel with damage to marine species, including some extinctions. Thus a conservation partnership was developed in 1992 with the Port-Cros National Park and the National Botanical Conservatory of Porquerolles; *The Sea*, as Total extracts significant energy resources from the sea and transports these by sea, a natural interest is the preservation of sensitive marine areas. Total's aim is to implement best practice during its marine industrial activities, improve understanding of marine ecosystems, and help restore damaged areas, including coral reefs, wetlands, protected areas, and control invasive species. The 'Coral Reef Biodiversity' program headed by Bernard Salvat, University of Perpignan from 2002-2003, had 8 components covering the biophysical, cultural, social and economic context of coral reefs in the Indian Ocean, Australasia and Pacific islands on: knowledge of biodiversity; cultural

perceptions of biodiversity; genetic diversity of coral species; economic valuation of biodiversity; role of protected areas in maintaining coral reef biodiversity; coral bleaching; coral reef monitoring and natural recovery; and monitoring with emphasis on climate change. Contact: Gina Sardella-Sadiki, gina.sardella-sadiki@total.com; Aurélien Vadier, aurelien.vadier@total.com; 2, place de la Coupole – La Défense 6, 92078 Paris La Défense Cedex, France; www.total.com; holding.fondation@total.com

UNEP - UNITED NATIONS ENVIRONMENT PROGRAM

The mission of UNEP is to provide leadership and encourage partnerships in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations. UNEP makes a particular effort to nurture frameworks and initiatives at the local, national, regional and global level which enhance the participation of governments and civil society - the private sector, scientific community, NGOs and youth - in working together towards sustainable utilisation of natural resources. The challenge before UNEP is to implement an environmental agenda that is integrated strategically with the goals of economic development and social well-being; an agenda for sustainable development. Contact: UNEP, PO Box 30552, Nairobi, Kenya; cpinfo@unep.org; www.unep.org

UNEP - CORAL REEF UNIT (CRU)

The CRU is the focal point within UNEP and the UN system to guide and mobilize policies and actions to support the conservation and sustainable use of coral reefs to safeguard their biological and biodiversity functions, which provide goods and services for the benefit of people and the sustainable development of dependant communities. Co-located with other coral reef resources at UNEP-WCMC, the CRU works closely with UNEP divisions/programs and international partners such as the International Coral Reef Initiative (ICRI) and Operational Networks. CRU activities include: supporting international collaboration to reverse coral reef degradation; cooperating to promote the political understanding of the importance of coral reefs; reviewing and integrating information on international policies related to coral reefs; and promoting innovative partnerships to address new and emerging coral reef issues, such as cold-water coral reefs. Contact: Stefan Hain, UNEP Coral Reef Unit, 219 Huntingdon Road, Cambridge, CB3 0DL, UK; stefan.hain@unep-wcmc.org; www.corals.unep.org and www.coral.unep.ch

UNEP - WORLD CONSERVATION MONITORING CENTRE

UNEP-WCMC is the biodiversity assessment centre of the UN Environment Program, with a major coral reef focus. This includes mapping, a global database on marine protected areas, monitoring trade in corals and marine ornamental species, and the global distribution of threats, including coral disease and bleaching. Reef associated ecosystems have been a major focus since the Status of Coral Reefs of the World: 2002 report. The World Atlas of Seagrasses (2003) was a major product, and work is underway to revise mangrove data into a new global atlas for publication in 2006. UNEP-WCMC, with support from the Marine Aquarium Council and members of the industry, completed an analysis of the global trade in live coral reef species in 2003. Future work at UNEP-WCMC will focus on a better understanding of ecosystem protection, especially coral reefs and associated ecosystems, in marine protected areas. Contact: Ed Green, UNEP-World Conservation Monitoring Centre, 219 Huntingdon Road, Cambridge, CB3 0DL, UK; ed.green@unep-wcmc.org; or www.unep-wcmc.org

UNESCO WORLD HERITAGE CENTRE

The World Heritage Centre (WHC), based at the UNESCO headquarters in Paris, was established to assure the day-to-day management of the 1972 Convention concerning the protection of the World Cultural and Natural Heritage (World Heritage Convention). The activities include assisting member states prepare World Heritage nominations, following the state of conservation of inscribed properties as well as providing financial or technical support from the World Heritage Fund or from extra-budgetary sources for the conservation of the sites. The WHC is working towards a more integrated approach towards marine World Heritage sites. The recently established Marine Program aims: to increase awareness of the Convention as a legal tool for achieving conservation of marine and coastal ecosystems; to contribute to improving the state of conservation of existing marine World Heritage sites; to promote nominations of marine properties including serial and transboundary sites; and to establish partnerships to build a network of support for marine World Heritage. Contact: Marjaana Kokkonen, UNESCO World Heritage Centre, 7 place de Fontenoy, 75352 Paris 07 Sp, France; m.kokkonen@unesco.org

USCRTF - UNITED STATES CORAL REEF TASK FORCE

The USCRTF was established by Presidential Executive Order in 1998 to lead U.S. efforts to preserve and protect coral reef ecosystems. The USCRTF, co-chaired by the Departments of Commerce and the Interior, includes 12 federal agencies responsible for coral reef conservation, 7 state and territory partners, and 3 freely associated states. The USCRTF adopted the U.S. National Action Plan to Conserve Coral Reefs in 2000, the first U.S. plan to comprehensively address the most pressing threats to coral reefs. The Action Plan identifies two fundamental themes for immediate and sustained action: understand coral reef ecosystems and the natural and anthropogenic processes that determine their health and viability; and reduce the adverse impacts of human activities on coral reefs and associated ecosystems. The USCRTF launched initiatives to help implement the Action Plan, including developing 3-year Local Action Strategies in each jurisdiction to address key threats to reefs. Contact: U.S. Coral Reef Task Force Secretariat, National Oceanic and Atmospheric Administration, Office of Response and Restoration, 1305 East-West Highway, N/ORR, Silver Spring, MD, 20910; www.coralreef.gov.

U.S. DEPARTMENT OF STATE

The Department of State is the foreign policy arm of the United States Government. The Department is dedicated to creating a more secure, democratic and prosperous world for the benefit of the American people and the international community. Within the Department, the Bureau of Oceans and International Environmental and Scientific Affairs is responsible for advancing sustainable development and natural resource conservation, including aspects related to coral reefs and coral reef ecosystems, through a wide variety of international treaties, organizations, initiatives and public-private partnerships. Contact: Office of Ecology and Terrestrial Conservation, Bureau of Oceans and International Environmental Affairs, U.S. Department of State, Room 4333, 2201 C Street N.W., Washington D.C., 20520; www.sdp.gov/sdp/initiative/icri.

WORLD BANK – ENVIRONMENT DEPARTMENT

The World Bank is an international financial institution dedicated to the alleviation of poverty. The Environment plays a crucial role in determining the physical and social well being of people. While poverty is exacerbated by deteriorating conditions in land, water and air quality, economic

growth and the well being of communities in much of the developing world, continues to depend on natural wealth and the production of environmental goods and services. As a result, the Bank is committed to integrating environmental sustainability into its programs, across sectors and regions and through its various financial instruments. Reducing vulnerability to environmental risk, improving people's health, and enhancing livelihoods through safeguarding the environment are the hallmarks of the Bank's Environment Strategy. Support for coral reef conservation and sustainable use is consistent with this theme, as it potentially affects millions of people around the world. The challenge for the Bank and its many partners in coral reef conservation, such as ICRI and GCRMN, will be to help communities capture the benefits from the sound management of coral reefs to meet immediate needs, while at the same time ensuring the sustainability of these vital systems for generations to come. For information on the Environment Department, contact: Marea Hatzliolos, Environment Department, The World Bank, 1818 H St. NW, Washington, DC 20433 USA, Mhatzliolos@worldbank.org; www.worldbank.org/icm; www.gefcoral.org

WORLD FISH CENTER

Formerly known as ICLARM, it is committed to contributing to food security and poverty eradication in developing countries. The efforts focus on benefiting poor people, and conserving aquatic resources and the environment. The organisation aims for poverty eradication, a healthier, better-nourished human family, reduced pressure on fragile natural resources, and people-centred policies for sustainable development. WorldFish Center is an autonomous, non-governmental, non-profit organisation, established as an international centre in 1977, with new headquarters in Penang, Malaysia and the focus for international efforts to tackle the major aquatic challenges affecting the developing world and to demonstrate solutions to resources managers worldwide. Contact: PO Box 500 GPO, 10670 Penang, Malaysia. Jamie Oliver, l.oliver@cgiar.org; www.cgiar.org/iclarm/

WRI - WORLD RESOURCES INSTITUTE

WRI is assisting coastal resource management and coral reef protection by providing comprehensive information on threats to coral reefs, economic value of the goods and services and losses that will result from reef degradation. The regional projects are implemented in close collaboration with partners, following the more-detailed global Reefs at Risk analysis from 1998. *Reefs at Risk in Southeast Asia* was released in 2002 and *Reefs at Risk in the Caribbean* in 2004, with the specific goals to: 1. improve the information base on threats to, status of, and protection of coral reefs in a region, by collecting, improving, and integrating information; 2. model threats to coral reefs based on population and development patterns, land use change, and the location and intensity of specific activities that degrade coral reefs; 3. develop a geographic information system (GIS)-based tool for local-level evaluation of development scenarios and related implications for coral reef health and economic value; 4. evaluate economic losses likely to result from coral reef degradation; and 5. raise awareness of human threats to coral reefs through wide dissemination of project results. All data (including GIS data sets) are on www.reefsatrisk.wri.org. Contact: Laurretta Burke, World Resources Institute, Washington, DC 20002, USA: laurretta@wri.org or Jon Maidens jmaidens@wri.org

WWF – WORLD WILDLIFE FUND

WWF is the world's largest and most experienced independent conservation organisation, with more than 4.7 million members and a global network in 96 countries. The mission is to stop degradation of the world's natural environment and build a future in which humans

live in harmony with nature by conserving biological diversity. WWF leads efforts globally to safeguard marine ecosystems by: conserving cold water and tropical coral reefs; assisting coastal communities to manage MPAs effectively; and ending destructive fishing practices. There are activities in key regions throughout the tropics to establish networks of MPAs that safeguard the ecological integrity of larger reef systems. WWF has been instrumental in promoting innovative market incentives that reward responsible fishing methods. WWF also works to improve fisheries management, reduce bycatch fatalities of vulnerable species (such as whales and sea turtles), stop illegal trade in marine wildlife and reform government policies that undermine the ocean's web of life. Contact: Anita Van Breda, anita.vanbreda@wwfus.org; or Helen Fox, helen.fox@wwfus.org, WWF, 1250 Twenty-Fourth Street, NW, Washington, DC 20037; www.worldwildlife.org.