Member's report on activities to ICRI

Presented by Brazil

Reporting period May 2009 – December 2010

1. General Information

Are you an ICRI Member?	Yes
Representation to ICRI (Country / Organization):	Brazil/ Brazilian Ministry of The Environment
Focal Point 1:	
Name:	Ana Paula Leite Prates
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Focal point 2:	
Name:	Beatrice Padovani Ferreira
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Last meeting attended:	Phuket/Thailand
How do you circulate ICRI information within your country and/or organization?	At the website, meetings and within the organizations
Budget allocated for coral reef related activities (please mention for year/period):	US$ Training Courses – 5,000 Video – 18,000 Monitoring program: 72,000

For countries only:

National Action Plan / Initiative	
Do you have a National Coral Reef action plan?	NO
Is this plan publicly available? If so please provide location:	
Do you have a National Coral Reef Initiative or Task Force?	NO
Are you engaged in any regional programs / initiatives relating to coral reefs:	YES
If yes, please indicate which programmes/initiatives:	Brazil is part of the SA Node of GCRMN, although is not part of Regional seas program for Caribbean as all the other SA country members in the node.

2. Updates on your activities (new initiatives/programs/projects of your government /organization which will be of interest to the ICRI Members**)**

- Mangroves: The activities of the GEF-Mangrove project started in October 2009. In this project, mangrove economic valuation studies will be conducted at Abrolhos Coral Reef bank region. This assessment will take into consideration not only the mangrove intrinsic value but also its related value with adjacent coral reefs as a nursery place to

many coral species (including important economic fisheries resources). The compensation mechanism is already applied in Brazil in cases where environmental damage takes place. The innovation sought in this Project is that compensation funds must be applied in the same type of ecosystem damaged, in this case, the mangrove and the associated ecosystems as coral reefs (www.mma.gov.br).

- New Ramsar sites in the period: Abrolhos Marine national Park was designated as a Ramsar Site.

- Coral Reef Monitoring: *A National Program*
  The Brazilian National Coral Reef Monitoring Program started in 2002 with a two year pilot phase to test and adapt Global Coral Reef Monitoring Network (GCRMN) protocols to characteristics of Brazilian reefs. The adopted protocol is Reef Check compatible, expanded to include more indicators and identification at species level, individual size measurements as well as abundance, and to incorporate more refined measurements for coral bleaching and diseases. The program has run now for seven years and one of the objectives is to monitor the effectiveness of Marine Protected Areas under different management regimes. In 2010 the Chico Mendes Brazilian Institute of Biodiversity will incorporate the Coral Reef Monitoring Program under the regular activities of the MPAs. For this, more than 60 MPA personnel and local guides and volunteers have been trained on monitoring activities during several courses and joint expeditions in 2009 with more scheduled to 2010. The initiative is funded by the Brazilian Ministry of the Environment and has received additional grants from AWARE Project and Wetlands for the Future/Ramsar Convention (www.mma.gov.br).

- Coral Reef Conservation Campaign: has run for several years. It is focused on promoting public awareness regarding the importance of the conservation of coral reefs and the fragility of these environments. It includes awareness materials such as posters, brochures, booklet, and a video (DVD) with 8 minutes of duration. In 2009 six training courses were conducted in six localities: Praia de Caraubas and Maracajau, Rio Grande do Norte State, Boipeba, Morro de São Paulo and Marau, Bahia State and Fernando de Noronha Pernambuco State. In November the Beach Conservation Campaign was launched in partnership with Blueflag Program, Ratones Institute NGO, Costal Agency NGO and Orla Project – Brazilian Ministry of the Environment (www.mma.gov.br).

- IUCN Red listing for marine species: The Institute Chico Mendes of Biodiversity Conservation (ICMBio), the body responsible for conservation and management of threatened species in Brazil, in partnership with IUCN and the Global Marine Species Assessment is leading a national initiative to assess the status of conservation of species, including coral reef species, in Brazil. Under this arrangement the IUCN Groupers and Wrasses specialist group and the Sciaenid Specialist Group held their global assessment workshops in Brazil which were followed by a national assessment workshop. More workshops to assess reef species are schedule to 2010. So far, the results indicate that a significant number of reef species are under threat, and many remain under the Data Deficient category, a clear message that information, including detailed fisheries statistics, is a priority for conservation.

- On the recovery and restoration front, the Recifes Costeiros Project, an integrated coastal management initiative for the APA Costa dos Corais, the largest multiple use coral reef MPA in Brazil, that started in 1998 funded by IADB, has shown by demonstrative experiments the potential for recovery of reef areas by the creation of small no take areas. Now, with funding from Foundation SOS Mata Atlântica through Fundo Costa Atlântica and AVINA Foundation, the Project is working on capacity building of local tourist guides to operate in the buffer zones of the no take areas. The strategy aims to improve engagement of local coastal communities in monitoring

activities and on the dissemination of the importance of no take areas as a strategy for coral reef conservation (www.sosmatatlantica.org.br).

- The Marine Management Areas Science Program - MMAS is an international program of Conservation International that is evaluating the effects of different management regimes and thus helping to point out best future actions. The Abrolhos Shelf is part of this network of four intensive study areas around the globe (Brazil, Fiji, Belize and Panama), all trying the same kind of experiment in parallel. More than 150 natural and social scientists, educators, managers, and policy makers are sharing knowledge, research, and lifetimes of experience in this global network experiment (www.conservation.org.br).

- Pro Abrolhos Project - The Abrolhos Bank is a complex suite of interconnected coastal and marine habitats located in Eastern Brazil that holds probably the largest biodiversity of the South Atlantic Ocean. A large sampling program, funded by CNPq/Institutos do Milênio was created to study the area at local and regional scales. The work is led by the Oceanographic Institute of the University of São Paulo and is composed of a network of 11 Brazilian research institutions. The main aim of the project is to understand the coastal and oceanic processes that govern the Abrolhos ecosystem in order to create better policies for its management and rational use.

- Brazilian goliath grouper Project - The goliath grouper *Epinephelus itajara* is the largest At*lantic grouper. It* is considered a cr*itically endangered* species according to IUCN criteria. In Brazil, the goliath grouper has been protected since 2002 by federal law. A network of institutions and people (scientists, NGOs, universities, fishermen, SCUBA divers) have been engaged in a project improving both scientific and traditional knowledge, enhancing awareness and protecting the goliath grouper and marine ecosystems where it occurs in Brazil (e.g. coral and rocky reefs, mangroves). The goliath grouper was the first fully protected marine fish species in Brazil and is a symbol of the threat that uncontrolled fisheries and habitat destruction represent to large and long lived marine species (www.merosdobrasil.org).

- Coral Vivo Project - It works for the conservation and sustainable use of Brazilian coral reef environments. It acts in an integrated way in three major lines: scientific research, environmental education and social mobilization. Through educational and research networking, the Project amplifies its social penetration and capacity building for environmental management (www.coralvivo.org.br).

- Mesophotic reefs in the Abrolhos Bank, Brazil -The mesophotic reef realm lies right below the conventional limits of SCUBA (<30m) and well above the dark ocean layers in which submersibles generally operate (>300 m), holding unique “twilight zone” assemblages. Recent sidescan sonar surveys revealed a broad extension of mesophotic reefs in the Abrolhos Bank, the region with the richest South Atlantic reefs. A team of scientists from Conservation International, Rio de Janeiro Botanical Gardens, São Paulo State University and the Federal Universities of Paraíba, Espírito Santo and Rio de Janeiro are now surveying this area with ROVs and mixed-gas diving, unveiling its potential roles in terms of ecosystems services and functioning.

- Reef Fishing Spawning Aggregation Project – the project “PRÓ-ARRIBADA is a initiative to study spawning aggregations of reef fishes (mainly groupers and snappers) in Brazil. Although well known informally, especially by fishers, the nature of the aggregations was only speculative and there are no protection measures in place regarding fisheries activities or other activities, such as seismic prospection over the aggregations. The project Pro-Arribada is under the agreement of seismic prospection activities between the Brazilian Institutes of Environment (IBAMA and ICMBio) and the Brazilian Fund of Biodiversity (FUNBIO) and is executed by Universities and NGOs. The project aims to study transient spawning aggregations

of reef fishes in four large regions along the entire coast of Brazil. The results of this two year project, started in 2009, will help to determine the impact of fishing and oil and gas exploitation activities on the aggregations and to establish management and conservation measures (www.funbio.org.br).

3. **Contribution to the ICRI GM:**

a. **Fisheries session**: (information and lessons learned from experiences in managing fisheries and in projects/programs)

Coral Reef Fishery in Brazil

The Northeastern coast of Brazil is characterized by the presence of various ecosystems of high productivity such as the Atlantic rainforest, mangrove forests, estuaries and coral reefs. This region is known as “Costa das Jangadas”, named after the rafts, which use sails and a rudder for fishing in the high-seas, and are an indigenous inheritance, perfected over the centuries by Africans and Europeans (Silva, 1988). Fishing was always an important activity in the region and today’s coastal municipalities grew on the basis of these fishing villas. Currently artisanal fishing, from non-motorized boats, rafts and canoes, remains the essential activity in the subsistence of many communities. In addition an artisanal, motorized fleet also operates n the continental shelf until the break of the slope. The great number of people involved, conflicts between fleets and thus the difficulty in putting into effect efficient organization and control mechanisms has contributed to a continual and progressive exhaustion of resources.

MPAs and empowering of local communities for management and conservation

A recent trend in marine management and conservation in Brazil are the Extractivist Reserves (RESEX) - a novel and unique partnership in natural resource extraction and conservation that Brazil has been experimenting with since 1989. Extractivist Reserves are one of the categories of sustainable use MPAs that are created on the demands of traditional and indigenous communities with the objective of using public areas to extract natural resources in a sustainable way, thereby preserving both the natural environment and the local culture and traditions. The federal government, through the Chico Mendes Institute for Biodiversity (ICMBio), assists the community in the task of developing a sustainable management plan. Thus it is the community that determines the way it will explore and use the resource potentials, with financial support and government assistance to enforce the local laws. Besides nature conservation, the objectives are to guarantee human rights and to improve the population's quality of life.

Today there are 45 million people in Brazil considered to be part of groups defined as traditional peoples or communities. The Extractive Reserves, at this context, could be the alternative model to a development compatible with the Brazilian social and environmental reality. In the last decades, fishers have been losing access to the beaches, due to accelerated coastal development (Diegues & Arruda, 2001). As a demand of the traditional peoples, which are, commonly, at the epicenter of social-environmental conflicts, the Extractive Reserve aims to protect the way of life and culture of these peoples and assure the sustainable use of natural resources within the boundaries of the protected area.

Since the first Extractive Reserve was created – 18 years ago – many questions evolved and it was established pattern procedures and tools to ensure that their creation should strengthen the community organization and also recognize the importance of traditional knowledge and their spatial and natural resource management systems. Until now, more

than 15 Extractive Reserves have been created in mangrove areas and two that encompass coral reefs. The more recent one, Cassurubá Marine Extractive Reserve, protects a large area of mangroves and Atlantic forest and is of great importance for the Abrolhos bank, the largest coral reef formation in Brazil.

No-take areas: a role in fishery management

One important point is the role of *no-take* areas inside or outside sustainable use MPAs, such as Resex or APAs. Results from the coral reef monitoring program showed that fishery indicators at all trophic levels were significantly more abundant on fully protected areas (no fishing) when compared to sustainable use areas, general use or protected areas without enforcement (Ferreira et al., 2004). Similar results have been found when comparing different management regimes in the Abrolhos Bank (Francini-Filho & Moura, 2008). Two sustainable use MPAs, Resex of Corumbau and APA Costa dos Corais are examples of the importance of the establishment of no take areas to the recovery of local fished populations (Ferreira et al, 2007, Moura et al, 2007 and Francini-Filho & Moura, 2008).

Recently, the National Commission on Biological Diversity- CONABIO- has approved a resolution establishing as a target to increase the percentage of national marine and costal fully protected areas to 10%, as a measure to decrease biodiversity loss. According to the National Plan on Protected Areas those areas must be the core of a representative network and inserted on an ancillary network of areas that support the biodiversity objectives of the highly protected network. The importance of highly protected areas as part of a fisheries management strategy has also been recognized during the third national fisheries conference in 2009, promoted by the Brazilian Ministry of Fisheries. Those areas can be established not only inside sustainable use MPAs but also through fisher's agreements, a legal instrument already in place especially in continental waters (Aquino et al, 2007).

Fisheries statistic and the problem of data deficiency

The lack of detailed information on catches is recurrent in tropical multi-gear multi-species fisheries. Many species appear in mixed catches categories making impossible to obtain abundance trends or conduct stock assessments. Fishing has moved fast down the food chain and species formerly caught as by catch turn to main targets faster than fisheries agencies have the ability to react and adjust. The Brazilian Ministry of Fisheries together with the Ministry of Environment and the Brazilian National Institute of Geography and Statistics (IBGE) is implementing a new strategy for fisheries statistics, the National System of Fisheries and Aquaculture Information – SINPESQ. As part of this strategy a pilot project was designed and will be implemented in 2010 to test the methodology to monitor artisanal small scale fisheries in Ceará and Pernambuco states. Fisheries in those areas include activities in mangrove and coral reef areas, as well as in oceanic banks and Islands with coral reefs. Other pilot projects will be developed in partnership with several governmental and non-governmental institutions in order to generate information for fisheries management in the country.

Catch certification and IUU fishing

As part of measures aiming to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing, the European Community has published the Regulation 1005/2008. To ensure the effectiveness of this prohibition, fishery products shall only be imported into the Community when accompanied by a catch certificate. Through this instrument, the competent authorities of flag state country of the vessel catching the fish will certify that the catches concerned have been made in accordance with applicable laws, regulations and international conservation and management measures. This certificate shall be validated by the competent authority of the flag state country, and if necessary, other

documents envisaged by the certification scheme in the event of an indirect import after transhipment, transit or processing of the products in another third country.

In November 2009, the operational rules were published by the EU, to direct the certification process of the Regulation. The Brazilian Ministry of Fisheries is making the necessary arrangements including the implementation of a on line system that will allow the Exporters to request their catch certification once the extractive products have their origin mapped and tracked as requested by the EU regulation. This measure is important in having management and conservation measures that ensure sustainable fishing and certainly could have many implications for coral reef fisheries.

References:

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b. Coral reef sites listed under the MAB programme in Brazil:

Brazilian coral reef sites listed under the MAB programme are: Northeast MAB: Fernando de Noronha Marine National Park, Atol das Rocas Biological Reserve, Abrolhos Marine National Park, as core zone and Costa dos Corais Environmental Protected Area as buffer zone all as part of Atlantic Forest Biosfere Reserve.

c. Other new initiatives/programs/projects/progress since April 2009…

- *Ramsar Site – designation of Abrolhos Marine National Park in 2009/2010*
- *Created of Marine Commite inside the Atlantic Forest Biosfere Reserve Council.*
- *VI Brazilian Congress of Conservation Units realized in september/2009 with the special symposium about marine conservation and MPAs.*
- *National Meeting of Coastal Management and First Ibero-american Symposium about marine and coastal conservation in Biosfere Reserves realized in november/2009 Launched of Beach Conservation Campaign*

d. Releases since April 2009….

Video "Aquatic Protected areas as tool of fisheries management" (to be presented at the ICRI meeting)

ICRI and Other Meetings -

- 15th meeting of the Conference of the Parties (CoP15) to the Convention on International Trade in Endangered Species of Wild Fauna and Flora
  Doha, Qatar, from 13 to 25 March 2010

- 5th Global Oceans Conference: Ensuring Survival, Preserving Life, and Improving Governance:
  - Policy, Science, and Technical Symposium (May 3-4, 2010)
  - Policy Conference (May 6-7, 2010) - OK

- 10th Meeting of the conference of the Parties to the convention on Biological Diversity (COP 10), October 18-29, 2010, Nagoya, Japan - OK

- Other (please specify):

  - SBSTTA/CBD, march, 2010, Nairobi, Kenia – OK
  - IWC – International Whaling Commission's 62nd Annual Meeting in Agadir, Morocco, 2010 – OK