

Brazil Node Synthesis

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Selected Summary Sections

VII) Summary Characteristics and Outcomes Across Node MMA

In this chapter we will present the general characteristics and outcomes from the Brazil MMA research in the specific MMAs, but generalized across all the sites.

A) There always tradeoff among biophysical and socio-economic variables and tradeoffs among different stakeholders and beneficiaries involved in MMA management. For example, restrictions on who can fish or how many fish can be taken, or where, will have short-term social and economic impacts. However, these short-term effects often can and do lead to long-term biophysical or economic sustainability. Effective planning and management usually involves these short-term tradeoffs, but can achieve long-term positive outcomes, biophysical, socio-economic and institutional outcomes.

B) MMAs can stabilize or increase fish populations and resultant economic benefits. This varied across the Brazil MMA cases, dependent on the specific type of management and its implementation. For example, in Abrolhos we found.....,while in Corumbao we found.....In the case of the APA, the results of the lack of implementation were evident.

C) Leisure-tourism is pervasive driving force that must be considered in policy and management plans. This also varied significantly among the MMAs. In Abrolhos the complete allocation of the use of the area to leisure and tourism was most evident, followed by Caravelas and the Cassaruba Reserve and the Corumbau Reserve.

D) MMAs most often include both biological conservation and social and economic allocation objectives. For example, in Abrolhos the primary object was biophysical conservation, but that

was achieved through complete allocation of the area to leisure-tourism. In Corumbau, there were both biophysical (elimination of significant habitat and species impact) and allocative (designation of the area for local fishermen) objectives and associated impacts.

E) Many different agencies have policies and rules that support or affect (always? No conflicts?) MMA (Park, Reserve) activity. For example, in the Corumbau Reserve fishermen still must have the Ministry of Fisheries and Agriculture fishing license, and are still subject to the general rules and regulations of that agency. The application of such rules and regulations are negotiated among the various governance structures, for example the MMA Councils and the Ministry of Fisheries and Agriculture.

F) The process of considering and establishing MMAs resulted in significant capacity-building. Many parties must be involved in the creation of an MMA, performing many different functions – science, communication, education, facilitation and consensus-building, administration and management. Usually, at least in the development phase of an MMA, resources are available to train and support people in these functions.

G) The consideration and establishment of MMAs resulted in the production of new scientific information. The consideration of protected areas draws the interest and involvement of government agencies, universities, consulting firms, industry and local communities. In all cases, the availability of good scientific data and information, both natural and social scientific, is emphasized in these processes even if it is not always full funded or implemented.

H) Consideration and development of MMAs resulted in increased community organization and activity. In essence, if a community desires to be part of a protect area, in particular an Extractive Reserve, they must organize themselves to do so.

I) Consideration and development of MMAS resulted in increased awareness of and involvement in coastal and marine conservation in general. In the creation of MMAs in Brazil, the role of communication, education and outreach has been emphasized. This has resulted in greater public awareness of not only issues surrounding each MMA, but coastal and marine conservation in general.

VIII) Important Factors Not Directly Related to MMAs

It is necessary to be aware of not only the things that happen in and around the MMAs themselves and with the direct policies and management within their boundaries, but also of the activities and environments and their respective policy and management in which the MMAs are embedded.

For example, in Brazil as well as in most coastal environments worldwide, the general development of leisure and tourism industries is often a dominant factor. This development can involve infrastructure (buildings, roads, sewage systems) and activities (recreational fishing, diving, nature-based tourism) that can have significant effects on coastal and marine environments and resources. Specific government programs such as those of the Ministry of Fishery and Agriculture Rules (licensing, etc.) control some of what happens in or near MMAs. Land-use planning in coastal areas can significantly affect MMAs, for example through the siting of impacting coastal industries such as shrimp farming or silviculture (for example in Bahia Province, eucalyptus).

Broad social and economic phenomena such as the movement of younger people out of fishing-related industries (because of increased education, characteristics or perception of fishing as an occupation, etc.), which is evident not only in Brazil but worldwide, is related to the eventual distribution of benefits from MMAs, but not under the control of MMA managers.

Factors such as these often affect the outcome from the establishment of an MMA, either through effects on the MMA itself or through effects on the distribution of benefits from the MMA.

IX) Important Emergent Themes

The following are the general themes that emerged from the MMAS work with MMAs in Brazil. The themes are items to which close attention should be paid in coastal and marine planning and management in the future.

Theme 1 – The Role of Political and Administrative Organization

Since MMAs are regulated and administered by the government, often with the involvement of several different agencies, public policies for those areas are influenced by the political party that is predominant. In the last eight years, PT (the Labor Party) was in office and many policies directed to the eradication of poverty, development of community infrastructure, empowerment of traditional populations and other topics were developed and implemented. If, in the next election, another party comes to office, there might be major changes in the environment policies. Which Particular agencies and organizations have authority and responsibility makes a difference, as does the leadership of those entities. It is not possible to control large-scale political factors, but attention must be given to them, and to the structure, process and personalities involved in government agency activities, to make progress on coastal and marine conservation.

Theme 2 – The Role of NGOs

Although question of influences from outside of the country certainly arise, the fact that certain NGOs, both domestic and international, have established offices in Bahia State was critical in producing much of the scientific, political and administrative work necessary to the establishment and implementation of MMAs. This work included science and activism with

respect to such activities as offshore oil and gas development and mariculture, support to strengthen local community associations and local councils, in addition to the work with MMAs themselves. NGOs can be – and were in the case of Brazil – important partners in this process along with government agencies, universities, local communities and other stakeholders.

Theme 3 – The Critical Role of Local Community Organization and Involvement

The involvement of local community organizations is critical in the establishment and management of MMAs, especially in the case of Extractive Reserves. In the case of Corumbau Reserve, after 10 years there have been some significant developments and changes in the community organization. The Management Plan for the reserve is almost completed, and the community has identified the beneficiaries (those who will formally be identified as able to obtain the benefits of the reserve, i.e. the ability to fish commercially or engage in professional recreational activity) of the area. In Cassurubá, the significant differences among community members point to the potential for conflict and negotiation in the process of community empowerment.

Theme 4 – The Need for Comprehensive Coastal and Marine Planning in Brazil

We noted in the first chapters that there is a lack of comprehensive coastal and marine planning in Brazil generally, including both planning within the coastal and marine sectors and also between the two. Cassurubá, whose extractive reserve includes both marine and coastal (mangrove) areas, is an example of the kind of integrated, comprehensive planning and management that is needed in more places, in a coordinated way, coast-wide throughout Brazil.

Theme 5 – Importance and Difficulty of Implementation

The phenomenon of “paper parks”, as discussed in the case of APA, point out the importance of following through completely with the planning and management process. While on forest

ecosystems there are information appointing some benefits from “paper parks”, it is definitely not enough to establish a marine protected area “on paper”, even with statutory law. The administrative process and ability to monitor and enforce the rules and regulations of the protected area must be fully and thoughtfully developed, with the input of the stakeholders.

Theme 6 – The Desirability of Adaptive Management

We define “adaptive management” as management that is able to develop clear goals and objectives, implement those goals and objectives, evaluate their effectiveness, and make necessary changes over time. It is an explicit process to use experience to improve future policy and management. In this process, scientific data and information is critical but should be informed by management needs in terms of setting research priorities (funding allocation, decisions on specific projects). In essence, the system should be designed to change in adaptation to new information and challenges

Theme 7 – Human Values, Perceptions and Attitudes as Drivers of Policy Processes

Different people will naturally have different perception of problems and issues and their appropriate solutions. These perceptions and attitudes, as much as results from formal “science”, determine behavior. As a practical matter, formal scientific information often comes in long after a process has begun – even sometimes after it is completed. People act on the information they have at the time; however, action is unlikely if their perceptions and attitudes do not come together on an agreed-upon course of action. This fact accentuates the important role of communication, education, outreach and consensus-building with whatever information is available.

Theme 8 – The important role of Subsistence and low-Capital Society and Economy

It is often difficult, especially for the developed world, to see the value of subsistence and low-capital society and economy, by which we mean societies and economies where much of the production from fishing or farming is consumed directly by the producers without entering markets or where per capita incomes and other measures of wealth are very low. Two things are important to realize, however. The first is that people should be able to determine their own subsistence form and lifestyle. And many people choose subsistence and low-capital approaches. The second is that much of the world, including coastal Brazil, contains many such societies and economies that provide quality lifestyles for their members. This is not to say that good health, education, and upward mobility are not important; but that the value of subsistence, low-capital societies and economies and the rights of self-determination should be recognized.

Theme 9 – Sustainability in Coastal and Marine Management

Achieving sustainability in coastal and marine management ideally involves good science and information; long-term planning and commitment; effective social process (community and stakeholder involvement) and political will.