

# The Environmental Municipal Councils as an Instrument in Coastal Integrated Management: the *Área de Proteção Ambiental Costa dos Corais (AL/PE)* Experience

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## ABSTRACT

FERREIRA, B. P.; MESSIAS, L. T. and MAIDA, M., 2006. The environmental municipal councils as instruments for coastal integrated management: the *área de proteção ambiental Costa de Corais (AL/PE)* experience. Journal of Coastal Research, SI 39 (Proceedings of the 8th International Coastal Symposium), 1003 - 1007. Itajaí, SC, Brazil, ISSN 0749-0208.

The municipalization as a government strategy has grown in the last decade in Brazil. As part of this process, the creation of environmental councils has been stimulated by the government as well as multilateral agencies. The city of Tamandaré is a coastal municipality located 120 kms south of Recife, the capital of Pernambuco state. The coastal zone of Pernambuco has a high population density and a diversity of ecosystems of great importance for local economy such as mangroves and coral reefs. Tourism is important to local economic and much effort has been put by the government to promote and develop the activity. The existence of three partially overlapped protected areas in this region reflects its importance and need for protection. Also, the fact that two of them are under the sustainable use category, where resource extraction is allowed, indicates potential user conflict and the need for management. The present work relates the experience of the Tamandaré Municipal Council of Environment, created in May 1999, focusing in the interactions with the Tourism Development Project for the Northeast. Predicted infrastructure developments included basic water supply and sewage plants as well as roads to allow access to more remote areas. By the year 2000 the road construction had caused impacts to several coastal ecosystems and the Council of Environment decided to launch a civil action through the Public Ministry. The construction was interdicted in the following year and a negotiation process started including mitigation actions, environmental compensation and participation in further planning for the area. The case of Tamandaré represents a practical example of participatory management of a coastal area with a high conflict potential and reinforces the importance of community organization and development planning.

**ADDITIONAL INDEX WORDS:** *Tamandaré, tourism planning, impact mitigation, ecosystem conservation.*

## INTRODUCTION

The municipalization of several actions of the Federal Government is a growing tendency - a reflex of the incentive to the decentralization of the management of the Union's public assets. It also represents a way to increase administrative efficiency and incorporate actions adapted to local needs and peculiarities.

To achieve this objective it is necessary not only to increase the capability of the State and Municipal Government, but also to reduce the concentration of power, through the development of mechanisms which allow the participation of local segments in achieving compatibility between the uses and the conflicts of interests.

In that process, the creation of municipal councils equally represented by public power and society has been encouraged by the Federal Government, which has conditioned the granting of funds to the municipality to the presence of those councils.

Health and Education Municipal Councils are good examples, which since the enactment of Federal Constitution in 1988, went through a process of organization to qualify for collecting funds like the School Meal Programa and the Public Health System- SUS (BOSCO, 2002).

The regulations of the National Environmental System - SISNAMA have been approved twenty years ago, including the creation of the National Environmental Council CONAMA and its replicas in the states and municipal governments. The CONAMA is a deliberative organ, presided by the governmental entity - the Ministry of Environment MMA, having representatives of the civil society and federal, state and municipal governments. The CONAMA's decisions are acts of law and are applicable in a national level (BRASIL, 1988).

In the beginning of the ninety decade, the National Environmental Fund had launched procedures similar to the

other funds. The direct association between funds granting and municipal councils triggered the creation of several councils, which were however, largely controlled by municipal and state governmental power (BRASIL, 1988).

Along the years, the municipals council's profile has evolved to allow a more effective participation of the civil society, including a deliberative character, as well as the election of its president through votes from the council members, in some cases with no attachment to the local government. This change is contributing to guarantee a larger independence and autonomy to the councils, strengthening the social control process and facilitating positive experiences in environmental management shared between the executive power and the civil society.

The multilateral banks -as financing sources of large projects which generate environmental impacts - have encouraged for the last two years or more, the parties who receive the loans to incorporate in the developing strategies analysis of environmental issues including conservation priorities. It has been also encouraged the participation of socially organized groups in the project planning, implementation, monitoring and evaluation (BARROS *et al.*, 2001).

The *Projeto Orla*, or Coast Project, of the Ministry for Environment, aims an increase management efficiency in the coast, through the decentralization of procedures of destination of uses of the Union's assets to the municipalities, including supervision mechanisms, regulations of use and settlement and stimulus to economical activities. That project includes the establishing of coast management's committees, collegiate forums that would support the municipal entities to manage the areas of the Union's Assets (MMA, 2002).

This paper reports the experience of the Conselho Municipal de Defesa do Meio Ambiente COMDEMA - Tamandare's Municipal Council for the Environment Defense in dealing with

impacts related to the civil works of the road system infrastructure of the Centro Turístico de Guadalupe CT (*Guadalupe's Tourism Center*), financed through PRODETUR/NE from Pernambuco' State Government, here presented as a study case.

### **The Settlement Process in the Northeast Coast and the Origin of the Coastal Municipal Districts.**

The Northeast coast is one of the country's most densely populated coastal regions, with the State of Pernambuco standing out as the epicenter of this concentration (MORAES, 1999).

The settlement process has generated a progressive degradation of the coastal ecosystems, a process that started as earlier as European Colonization in the XVI century (MAIDA and FERREIRA, 1997). By then, specially rich areas of the coast, like Pernambuco's coast, with the presence of several ecosystems with high productivity as the Mata Atlântica, mangroves, estuaries and coral reefs probably already had large settlements of indigenous people (RIBEIRO, 1995).

The present coastal municipal districts developed from fishermen villages, dated from the XVIII Century (CASCUO, 1957). In the last decades, however, the fishermen are losing the access to the beaches, since their properties in those areas are being bought or expropriated by the holiday's owners and tourists. (DIEGUES and ARRUDA, 2001).

### **The Coastal Ecosystems and the Urban Development**

According to the V Sectorial Plan for Sea Resources, elaborated by CIRM, the Inter Ministerial Commission for Sea Resources (CIRM, 1999) the anthropic impact suffered by the coastal ecosystems has inflicted serious damages not only to the adult populations of aquatic species but mainly to the juvenile populations - which present higher vulnerability particularly in nurseries areas commonly located in estuarine areas.

The estuaries - the transition zone between continental and seawaters - are one of the ecosystems most affected by anthropic actions. The real estate speculation and the consequent disordered occupation of the coastal areas, and more recently, the use of those areas to the carciniculture, have resulted in the destruction of mangroves, which constitute in essential ecosystems to life's cycle of countless species, besides exercising the fundamental roll in the coastal ecosystems enrichment.

The presence of mangroves still contribute to soften the floods processes, the silting up process and sea erosion, absorbing also, a large part of the impact from the effluent discharge of the urban pollution (domestic sewage, garbage, etc), industrial (PCB, heavy metals, etc) and agricultural (toxics from agriculture in general).

Additionally, according to V PSRM, the disordered occupation of the coastal areas has also caused the destruction of dunes and the building of ridges, consequently worsening the sea erosion problem besides affecting the fishermen villages. The residents are forced to move to other places and frequently to change their work activity resulting in the evasion of capable labour hand in the fishing activity.

The human activities that affect the Brazilian coral reefs are the same ones that globally threaten the most part of the coral reefs, such as: soil use practices that increase the silting up, domestic and agricultural pollution, overexploitation of reefs' resources and uncontrolled tourism activities.

### **The Municipal District of Tamandaré**

The Municipal District of Tamandaré is located in the south coast of Pernambuco, at about 110 Km from Recife, with an area of 98.9, being limited to the East by the Atlantic Ocean, to the West by the Municipal District of Água Preta, to the South by the town of Barreiros and to the North by Rio Formoso, located between latitudes 8°45'36" and 8°47'20 " S, and

between the longitudes 35°03'45" and 35°06'45 " W.

The demographic density of Tamandaré, according to the census of the year 2000 (IBGE) is 173.22 inhabitants per km<sup>2</sup>. Tamandaré's population is of 17,064 inhabitants: 11,538 in the urban area and 5,526 in the rural area. Traditionally, the economy is based in the sugar cane and coconut cultivation and in the fishing activity.

From the fifth's decade onwards, the municipal district growth increased as consequence of the tourism activity expansion. The area is inserted in the tourism region known as Costa Dourada (Golden Coast) considered a priority under the Pernambuco State's Government Tourism Development Project PRODETUR.

Part of the municipal district area is within the limit of three conservation units: Proteção Ambiental Costa dos Corais (Coral Coast's Environmental Protection Area), Área de Proteção Ambiental de Guadalupe (Guadalupe's Environmental Protection Area) and Reserva Biológica do Saltinho (Saltinho's Biological Reserve).

The area where the municipal district is located was considered a hotspot in the the Brazilian Coastal Zone Biodiversity Conservation Workshop, taken place in 1999. Although there is need to protect those environments - which include Atlantic rain forest, mangroves, sandbanks, estuaries sea grass beds and coral reefs- the level of occupation and human dependence of these environments is high, so the two larger conservation units are designed for sustainable use (SNUC).

### **The Integrated Process of Coastal Management.**

The Área de Proteção Ambiental (APA) Costa de Corais (Coral's Coast Environmental Protection Area) was created by Federal Decree in October 27, 1997.

This protection area is located in the Southern coast of Pernambuco's State and the north of Alagoas' State. The area runs from the municipal district of Tamandaré to the municipal district of Paripueira ( in the north of Alagoas' State), limited from a 33 meters line from the high tide to 18 miles from the coast, including the whole platform until the edge of the Continental talus plus the mangroves. In the total, the APA's area is about 413.563 hectares.

It is the first federal conservation unit to protect part of the coastal reefs, which are distributed for about 3,000 km of the northeast coast. It is the larger federal sea conservation unit, with an area embracing 13 municipal districts.

By July of 1998, the Inter American Bank approved the project "Iniciativa de Manejo Integrado para o Sistem Recifal Costeiro entre Tamandaré e Paripueira" (Integrated Initiative for Management of the Coastal Reef's System Between Tamandaré and Paripueira), or "Recifes Costeiros" project ([www.recifescosteiros.org.br](http://www.recifescosteiros.org.br)). The project was born from initiatives of the Oceanography Department of the Pernambuco's Federal University, the Fisheries Research Center of the Brazilian institute of Environment (CEPENE, IBAMA) and the Aquatic Mammals Foundation (FMM).

Among several aspects dealt by the Coastal Reefs Project, one of the main objectives is the creation of an institutional structure of integrated littoral administration.

The importance of the municipal executive power in the process of environmental administration is quite clear, hence the municipal district is in direct contact with the problems and daily conflicts, and if qualified and organized, it could act in an effective way in the search of appropriate solutions.

The initial idea was the creation of an Administration Committee for the Coral Coast MPA. Nevertheless became quite clear that, due to the diversity of municipal districts in relation to several aspects, the representativity and the effectiveness of a managing council would depend upon the capacity of each one to represent the interests and local needs in a wide way.

Therefore, the Projeto Recifes Costeiros adopted as a strategy the capacitation of the municipal institutions through the establishment and operation of the Municipal Councils for



Figure 1. Coral Coast Environmental Protected Area. Source, FERREIRA *et al.*, 2001.

Environmental Defense COMDEMA in the Coral Coast MPAs municipal districts. Up to now COMDEMAs were established in four municipal districts, as follows: Tamandaré and São José da Coroa Grande in the State of Pernambuco and Maragogi and Paripueira in the State of Alagoas. These municipal districts were selected due to their strategic location concerning: geographic distribution, human occupation and potential of the region, mainly concerning to the interest of the municipal district, represented by the municipal administration and the organized civil society for the development of public policies of environment protection.

There are COMDEMA's units already structured in the municipal districts of Tamandaré and Maragogi. The first one is the older with more than three years of creation and the second one was established almost two years ago. The municipal districts of Paripueira and São José da Coroa Grande created COMDEMA's units but failed so far in going ahead towards implementation.

With the purpose of supplying technical advice to the interested municipal districts, the Coastal Reefs' Project offers in the first step, the logistic structure and the necessary human resources for the development of actions from the executive department, besides the support to the technical work groups for the elaboration of diagnoses, reports and opinions.

Associated to COMDEMA is the operation of the Municipal Environmental Fund, with resources originated from experimental activities of sustainability proposed by the Coastal Reefs Project, executed in partnership with organs of the three spheres of the public administration and the community.

The Marine Municipal Guard of Tamandaré and the control of tourism in the Maragogi's coastal reefs are examples of some of these activities, discussed and made viable within the COMDEMAs.

### **The Conselho Municipal de Defesa do Meio Ambiente de Tamandaré (Tamandare's Municipal Council for the Environmental Defense)**

The Tamandaré's COMDEMA was created by the Municipal Law n. 7299, from May 17<sup>th</sup>, 1999, modified by the Supplementary Law n. 01/99, from June 17<sup>th</sup> of the same year.

The COMDEMA is a collegiate entity, representative of the community, with functions of deliberating, consulting, regulating and supervising, composed by representatives of governmental entities and the civil society.

The COMDEMA is the municipal district's higher jurisdiction for environmental policy and is part of the Environmental National System SISNAMA aiming for the protection and conservation of natural resources, as well as the improvement of life quality and the sustainable development.

At the time of the COMDEMA's creation, five municipal councils acted in Tamandaré. After three years, there are ten councils with different degrees of implementation and performance in the municipal district. Among the ten councils, only two were not created by some type of administrative imposition of the Federal Government; only two are deliberative; and, only one has deliberative and not obligatory nature. COMDEMA is the only entity that figure among the three exceptions.

The COMDEMA has representatives of the civil society and ONGs (non government organizations) concerned to the life quality of the municipal district, as well as public institutions as follows: Municipal City Hall, City Councils, Brazilian Institute of Environment, Pernambuco's State Environment Agency, Judiciary Power and Environmental Police (the last two, considered as special advisers without right to vote). From May 1999 up until now COMDEMA held ordinary meetings once a month - 52 times with additional four extraordinary meetings.

Among the environmental issues concerning the municipal district of Tamandaré that are discussed at COMDEMA, stand out as the most important: the implantation of land allotments and urban condominiums, the irregular occupation of the sea side areas, the implantation of rural settlements and the interference of PRODETUR/NE's projects, object of analysis of this work.

PRODETUR-NE was conceived to be an auxiliary program in the development of touristic activities in the Northeast area. This was an attempt to improve the serious social conditions of the area (PRORENDA-GTZ, 2000) where - in view of its potential due to its natural characteristics - the tourism comes as an economically viable solution. The program envisaged the implantation of multiple infrastructures and public services structure, as sewage and garbage treatment, roads works, and environmental and historical assets recovery.

The whole program for all the Northeastern states was estimated in US\$800 million, being 50% financed by the Interamerican Bank of Development (BID) and 50% from local sources as the Federal and the States Governments.

In the State of Pernambuco, the Executive State's Unit of PRODETUR signed a contract with the Banco do Nordeste for investments in the cities of Recife, Rio Formoso, Sirinhaém and Tamandaré.

Besides the construction of a Conventions' Center, the renovation of the Recife's old sector and the improvement of Recife's airport, were scheduled basic sanitation works in Rio Formoso, heliport infrastructure, a pier and the construction of roads to Sirinhaém.

Concerning to Tamandaré, it was scheduled the construction of three roads, the renewal of the city's main access and the construction of a bridge connecting the municipal district to the neighbor district of Rio Formoso. The elaboration of master plans for urbanization of the three municipal districts was also included in the investments. These works and services are part of the plans of the state of Pernambuco Government for this area - the Guadalupe's Tourist Center (CT).

The first discussions on the PRODETUR in Tamandaré occurred in the level of the forums for the elaboration of the master plan. On that occasion, the plan's coordinating team informed that part of the municipal district had already an urbanization plan proposed by the State of Pernambuco Government, in view of the institutional interest in the area to the development of projects for the construction of resort hotels.

From then on, the issue became recurrent in the COMDEMA's

agenda, resulting in the approval of a protest motion against the way in which the works of the Guadalupe Tourist Center road system was being carried out.

The protest motion was based in the facts as follows: a) the impacts of the road's works over the coastal environment, including deforestation of Atlantic rain forest, mangroves earth filling, vegetation cutting, extraction of sandbanks, estuary silting up and increase of the coral reefs' sedimentation; b) the way which the environmental licensing process was conducted; c) the lack of transparency from the State of Pernambuco government concerning to discussions and community's manifestation of opinion; d) the foreseeable environmental and social problems that will occur due to the road system construction.

In September 2000 the referred motion was sent to the concerned Government Secretary of State and also to BID, to Banco do Nordeste, to Federal's and State's Public Prosecution Service and to IBAMA.

By February of 2001, the Public Prosecutor opened a Public Civil Inquiry to ascertain the damages that the works were causing to the environment, especially to two Protected Areas: the Costa dos Corais' and the Guadalupe's.

It should be reminded that, since the presentation of the protest motion until the opening of the inquiry, the State of Pernambuco government didn't formalize any contact with COMDEMA in an attempt to solve the conflict. The action of the State's Public Prosecutor was necessary in view of the lack of proper answers from the State of Pernambuco Government to COMDEMA's inquiries, and further motivated by a jointly inspection by the advisers with Rio Formoso's Public Prosecutor to the works' sites.

The discussion of this subject in COMDEMA did not aim only to mitigate and to compensate the impacts, but also to offer alternatives to the current outdated development model. The others PRODETUR's developments along the Brazilian coast also generated degradation of the coastal ecosystems, and some failed to collaborate to the development of local communities, creating opportunities only to great entrepreneurs of the tourism business (PRORENDA-GTZ, 2000).

The discussed alternatives were the creation of a Protected Area, with adequate training for the local community so they could participate in the ecological tourism sector assuring that the measure would generate benefits to the municipal district and promote a differentiated tourism.

The year 2001 was dedicated to negotiation meetings for the elaboration of the basis for an agreement for conducts' adjustment the *Termo de Ajuste de Condutas*. This agreement aimed to halt the Public Civil Inquiry and the opening of a Civil Action with possibility to make the parties involved criminally responsible for the process of environmental degradation.

The meetings had always the presence of all the sectors involved, besides BID, which designated an environmental specialist to participate.

After one year of negotiations, both parties (COMDEMA and State of Pernambuco Government) agreed in several points.

Here follows the more relevant:

a) The necessity of creating a Municipal Park, as a main compensatory measure;

b) The funds for implementing the conservation unit must amount, at least, in 0.5% of the project value, according to Resolution n. 002/96 from CONAMA;

c) The necessity that the works should be obligatorily subjected to an environmental licence process, according to Resolution n. 237/97 from CONAMA;

d) The recuperation of the degraded environments;

e) The construction of roads drainage system in the roads and recomposition of the vegetation in the slopes;

f) The participation of Tamandaré's community in the discussions of the State of Pernambuco Government's proposal to PRODETUR II. After the TAC basis have been already agreed, the second half of the year 2002 was marked by the lack of attention from the State of Pernambuco Government and from the MPE to conclude the referred agreement.

Only by the end of that year - with the intervention of the

Federal Public Prosecution Service (MPF) - the negotiations were resumed and the TAC is being consolidated.

Also by the end of the year 2002, BID adopted as strategy the elaboration of Integrated Development Plans for Sustainable Tourism - Planos de Desenvolvimento Integrado do Turismo Sustentável (PDITS) - for detailed definition of the required development to the area and the identification of the municipal districts that could be benefited by PRODETUR II's direct investments.

For PDITS's consolidation, it was established a Council for Tourism in the Area "Costa dos Arrecifes" the Conselho de Turismo do Pólo Costa dos Arrecifes in which COMDEMA took part, due to the actions accomplished in PRODETUR I's ambit.

Several actions are foreseen in PDITS to be implemented in Tamandaré, inclusive those proposed and not rendered in the PRODETUR I - the water supply and sewage treatment systems, besides the recovery of Santo Inácio's Fortress, historical asset of the State of Pernambuco.

## DISCUSSIONS

The process here referred is now in the final phase, hence after the intervention of the Federal Public Prosecution Service, the Government of the State of Pernambuco agreed in resume the negotiations. The basis for the signature of the Terms of Adjustment of Conducts was agreed with COMDEMA.

BID's analysis on the social and environmental impacts caused by PRODETUR I showed that the great majority of the municipal City Halls lacks of technical know how and resources to implement actions concerned to planning and environmental administration. Frequently those municipal districts don't possess qualified structure to deal with environmental issues. ]

The creation of COMDEMAs in most of the cases is not followed by the provision of operational resources, and as result, most of those councils are unoperative or working under serious difficulties, since they do not possess nor the structure, nor the necessary environmental conscience for their operation.

The case of Tamandaré has been mentioned as an exception in this scenery - an example that there are precisely these shortages that harms the true implantation of the Councils.

The main change in the conception in PRODETUR's second phase aims specifically to mitigate this deficiency. The PDITS's final document, foresees the creation and implantation of the COMDEMAs to be financed under the component strengthening municipal capacity for tourism administration. This action is considered as a condition for the municipal districts to candidate to PRODETUR II's financing.

By September 2003, the municipal district of Tamandaré created the Fortress of Santo Inácio Municipal Park by decree, as an indicative to speed up the TAC agreement process.

From the experience of COMDEMA onwards, it is hoped that a new phase of dialogue between the society and the government will arise, with the debates concentrated much more in the planning phase than in the accountancy of benefits and losses.

## ACKNOWLEDGEMENTS

We thank the secretary and all who were and are members of COMDEMA. We also thank the environment specialists of BID Marc Dourejeanni and Marco Antonio Mendes, and acknowledge the fundamental role and support of the Public Prosecutors Paulo Cesar Nascimento and Marcia Lima from Rio Formoso, Pernambuco.

## LITERATURE CITED

BOSCO DE LIMA, A., 2002. Os Conselhos Municipais na educação e a participação da sociedade civil. Resumenes del Primer Congreso Nacional de Políticas Sociales. Universidad Nacional de Quilmes, Argentina, Resumenes pag. 34.

- BRASIL. Federal Constitution. 9 ed. 1988. Law No. 7,797, enacted in 1979, instituted the National Environment Fund (Fundo Nacional do Meio Ambiente FNMA).9 ed
- BRASIL. Federal Constitution. SISNAMA Law No. Lei nº 6,938, on August 31, 1981. 9 ed. 1988..9 ed
- CIRM. 1999. V Plano Setorial para os Recursos do mar (1999-2003). (V Sectoral Plan for Marine Resources) Brasília.
- DIEGUES, A. C. and ARRUDA, R. S. V., 2001, Saberes tradicionais e biodiversidade no Brasil. Brasília, Ministério do Meio Ambiente, USP, 176p.
- FERREIRA, B. P. and MAIDA, M., 2001. Fishing and the Future of Brazil's Northeastern Reefs. *InterCoast* 38:22-23.
- FERREIRA, B. P.; CAVA, F. C. and MAIDA, M. Ictiofauna Marinha da APA Costa dos Corais: lista de espécies através de levantamento da pesca e observações subaquáticas. *Bol. Téc. Cient. do CEPENE*. 9(1):167-180.
- MAIDA, M. and FERREIRA, B. P. 1997. Coral Reefs of Brazil: an overview. *Proc. 8<sup>th</sup> Int. Coral Reef Sym.* v. 1; p. 263-274.
- MMA., 2002. Programa Nacional de Gerenciamento Costeiro (GERCO). (National Coastal Zone Management Program) <http://www.mma.gov.br>.
- MORAES, A. C. R., 1999. Contribuições para a Gestão da Zona Costeira do Brasil: elementos para uma geografia do litoral brasileiro. Hucitec, Edusp. (Contributions to the Coastal Zone Management of Brazil elements for a geography of the Brazilian coastline). São Paulo. 229p.
- PRORENDA-GTZ, 2000. Sobre o Impacto das Obras do Prodetur na Costa Nordeste. Relatório do Programa PRORENDA-GTZ.
- RIBEIRO, D. 1995. *O Povo Brasileiro*. Companhia das letras, São paulo, 476 pp.
- RIBEIRO, D. 1995. *O Povo Brasileiro*. Companhia das letras, São paulo, 476 pp.