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BIJAGOS ARCHIPELAGO:
Impacts and challenges for environmental sustainability

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ABSTRACT

The Archipelago of Bijagos in Guinea-Bissau is currently subject to numerous external impacts affecting their secular equilibrium. The islands were never contemplated by the colonial development, with the exception of two modest ports in Bubaque and Bolama. The latter place was the capital of the country from 1913 to 1941. The archipelago has attracted increasing interest on the part of economic agents, most of which are incompatible with the guarantee of sustainable development. There has been a general impoverishment as regards the preservation of marine resources, particularly with regard to the internal demographic pressure from a population that has doubled since 1981 and due to other external factors related to the neighboring and subsequent migration depletion of resources not renewable. The article analyzes the main vulnerabilities that the archipelago is currently facing and how natural resources have been preserved. The article follows an interdisciplinary approach between different areas of knowledge especially in projects involving both different academic fields (biology, ecology, geography, anthropology and history), for the non-scientific practices that include actors and institutions.

Keywords: Natural Resources; Sustainability; Potentials; Vulnerabilities.

ARQUIPÉLAGO DOS BIJAGÓS:
Impactos e desafios para a sustentabilidade ambiental

RESUMO

O Arquipélago dos Bijagós na Guiné-Bissau é actualmente sujeito a numerosos impactos externos que afetam o seu equilíbrio secular. As ilhas nunca foram contempladas pelo desenvolvimento colonial, com a exceção de dois portos modestos em Bubaque e Bolama. Este último lugar foi capital do país entre 1913 a 1941. O arquipélago tem despertado cada vez mais interesse por parte de agentes económicos, na maioria dos quais incompatíveis com a garantia de um desenvolvimento sustentável. Tem-se assistido a um empobrecimento geral no que respeita à preservação dos recursos marinhos, particularmente no que diz respeito à pressão demográfica interna de uma população que duplicou desde 1981 e devido a outros fatores externos relacionados com as migrações vizinhas e consequente esgotamento de recursos não renováveis. O artigo pretende analisar as principais vulnerabilidades que o arquipélago atualmente enfrenta e o modo como os recursos naturais têm vindo a ser preservados. O artigo segue uma metodologia interdisciplinar entre diversas áreas do saber e do conhecimento sobretudo em projetos que envolvam tanto as diferentes áreas acadêmicas (biologia, ecologia, geografia, antropologia e história), quanto às práticas não-científicas que incluem atores e instituições diversas.

Keywords: Recursos Naturais; Sustentabilidade; Potencialidades; Vulnerabilidades.

ARCHIPEL DES BIJAGOS:
Impacts et défis pour la durabilité de l'environnement

RÉSUMÉ

L'Archipel des Bijagos en Guinée-Bissau est actuellement soumis à de nombreux chocs externes affectant leur équilibre séculaire. Les îles ont jamais été envisagées par le développement colonial, à l'exception de deux ports modestes Bubaque et Bolama. Le dernier endroit était la capitale du pays de 1913 à 1941. L'archipel a attiré l'intérêt croissant de la part des agents économiques, dont la plupart ne sont pas compatibles avec la garantie d'un développement durable. Il y a eu un appauvrissement général en ce qui concerne la préservation des ressources marines, en particulier en ce qui concerne la pression démographique interne à partir d'une population qui a doublé depuis 1981 et en raison d'autres facteurs externes liés à l'épuisement des voisins et la migration ultérieure des ressources non renouvelable. Cet article analyse les principales vulnérabilités que l'archipel est actuellement confrontée et comment les ressources naturelles ont été préservés. L'article suit une approche interdisciplinaire entre les différents domaines de la connaissance et de la connaissance en particulier dans les projets impliquant à la fois différents domaines académiques (biologie, écologie, géographie, anthropologie et d'histoire), pour les pratiques non-scientifiques qui comprennent des acteurs et des institutions.

Mots clés: Ressources Naturelles; Développement Durable; Potentiel; Vulnérabilités.

INTRODUCTION

This research is essentially a matter of study and, for this purpose, we used a particular method of field research in order to understand, explore or describe events and complex contexts in which are simultaneously involved several factors including biological, environmental and humans. The study follows an interdisciplinary approach in which it crosses a set of disciplines that studies natural phenomena (biology and ecology) and human (geography, anthropology and sociology) and on central concepts around the recurring priority problems of development in Africa.

The methodology to be followed in this article will be of critical analysis, combining certain techniques with emphasis on literature review, document analysis and participant observation technique through fourteen months of field experience in the archipelago as a technical development by AMI Foundation. We left several concepts, including: natural resource, environmental sustainability, and potential vulnerabilities in order to explain the complexity of the environmental phenomena that occur in the archipelago of Bijagos. The vulnerability concept relates to something that is fragile, delicate or a characteristic which indicates a state of weakness and generally refers to a specific situation or object of study.

Moreover, the idea of capability arises in consideration of the possibility of its realization, i.e., the possibility that someone or something has to change this reality.

The central objective of this article is to know how the bijago population comes to the management of natural resources and how it handles its relationship with the territory in order to understand what the main vulnerabilities that the archipelago is currently facing. Each theme is concerned to put in relief the relationship between man and the environment, showing, in particular, as bijago culture influences the state of nature and vice versa, and traditional knowledge on the management and use of natural resources.

The preservation of these resources is key to the archipelago's development. Despite the abundance of fisheries resources and the incitement to fishing, the main activity of the insulate people is the agriculture. It fosters rice crops and secondary crops such as cowpea and groundnut. The most ordinary form of rice crop is rainfed rice crop over clean burned fields. Land management is collective and articulated around the villages. This system allows each family to possess very sparse lands, sometimes located in several islands, leading to periodical and temporary family or village migrations. Global cereal production is insufficient most of the time, for the islanders have decided to intensify cashew plantations in order to be able to exchange its fruit, the main export product in Guinea-Bissau, by the necessary rice. Incentives to monoculture have led to an even sharper deforestation and to a dramatic reduction in rice crop areas. The race to ea-sy revenues replaces the cultivation of fertile grounds by an inadequate agricultural function such as cashew monoculture. Bolama, the country´s capital from 1900 to 1939, has a tradition in fruit growing and horticulture, whose development is practiced by the city´s multiethnic community, comprising the bijagos, mancanha and papel ethnic groups. All are excellent horticulturists. The sacred statute that shapes up current protected areas has largely contributed to preserve some locations (sea branches, capes and islands) used by the bijagos in ceremonies and initiations. The islands or parts of it are governed by several religious, food and sexual taboos, which causes total or partial interdictions and restricts the access only to periods of rituals and ceremonies.

USE AND CONSERVATION OF NATURAL RESOURCES

In the Bolama-Bijagos region, livestock farming complements agriculture and represents a substantial food resource for families; it also plays an important role in traditional ceremonies in Guinea-Bissau. Not so long ago, animals were abandoned in

deserted islands and survived with no human intervention at all. Hunting was the only way to recover them. Currently, during the dry season, animals are left unattended in the islands devoted to farming and during the rainy season are gathered and confined so that the crops are not affected. Palm tree exploitation also plays a key role in the life of the archipelago. Palm oil, fruits and oil produced from palm trees are the most common trade method to obtain rice.

Palm trees are also useful in preparing medicinal substances and food for ceremonies. The limits that are imposed to palm tree farming depend on the islands´ economic condition, on the number of inhabitants in each region and on the localization and size of palm tree forests. It is the young adults (*kamabi*) who that issue authorizations. They represent the last age group initiated at the time of the *fanado* and, after the ceremony, spend several years in the woods managing it. The forest management is an activity in which the higher authorities from the *tabancas* and land owners take part in also. As far as rice crops are concerned, the authorities and the *kamabi* form some islands can temporarily prevent access to some areas before important ceremonies, so as to maximize palm oil production, the main ceremonial beverage.

Every person with authorization to exploit a palm tree forest has temporary exclusivity for that activity. One should focus on the religious and ceremonial aspects that play a determining influence among the bijagos, in space occupation and resource exploitation. These restrictions may materialize above all through sacred places that have (temporary or permanent) use restrictions, and sanctions in case of transgressing (ANILDO, 2000). The highly regarded religious or ceremonial places are namely those of the *fanado* (main initial masculine/feminine ceremony), the payment to the elder (*pagamento da grandeza*) and the place of the deceased (*defunto*), as well as places for the transit of souls and the home of the *Iram*. The place for the *fanado* is the widest and also the most strictly controlled and subject to the severest sanctions.

The bijagos territory has been articulated according to cultural commandments connected to traditional agriculture, fishing, livestock and foranging (WALDMAN, 2002). The islands of João Vieira, Meio, Cavalos, Bane and Engumbane are places for initiation (*fanado*). In Rubane and Anaguru, one is forbidden to bury the dead or builds permanent graves. Many islands have specific restriction, some partial. Even in the case of deserted tabancas, the traditional, churches (*balobas*) carry on being respected and sanctified by all of the bijago population

There are also other places where sacred aspects are construed and administrated by the *kamabi* or seldom by the elder. Outside ceremonial periods, however, the *cambuas* (vegetable or stone dams built to catch fish during the low tide) can be used without any special authorization from the person in charge of fishing. The use of *cambuas* presumes a good knowledge of the environment and tends to disappear with the reduction in fish stocks.

POTENTIALITIES OF THE BIJAGOS ARCHIPELAGO

The Bijagos Archipelago is a set of islands located off the West-Africa coast of Guinea-Bissau and has received the Ecological Biosphere Reserve classification by UNESCO in 1996, with a World Heritage classification on the way. Its impressive biodiversity has caught environmentalist´s attention in the last few years. These small islands are also praised by geneticists, for they encompass lakes with species that possess unique genes, useful for evolution research purposes.

Guinea-Bissau´s littoral is composed of depositional sediments dating back to the Tertiary Period. These ancestral formations rarely emerge at the surface and are covered by more recent quaternaries sediments. With the rise of the sea level and the flooding of the former delta of the Geba River, valleys turn into canals, separating the groups of islands and sketching the present physiognomy of the archipelago. Insular entourages form very complex ecosystems and are extremely vulnerable to human intervention. The shore and the island´s surface play a key role in the characterization of the natural environment and biological diversity. The aquatic barrier settles the specific ambience for each island, fathering a particular interest in what regards preservation and scientific research.

The Bijagos Archipelago occupies a total surface of 10.000 km^2 of which 1.600 km^2 are barred areas (sand banks or swamps). Only ten percent are considered *emerging lands* and are inhabited by about 25,000 people. This archipelago comprises around 80 islands, 42 of which with a significant area. A total of 21 islands are occupied permanently and some other 21 are cultivated seasonally. Guinea-Bissau´s climatic traces can be explained by its geographical location (between the equator and the Tropic of Cancer), as well as by its direct contact with the ocean. Moreover the country suffers the influence of air masses coming from the South Atlantic Ocean and the Sahara Continental Bloc.

Regarding its hydrological dynamics, the archipelago is situated in a conjugation of numerous confluences: continental estuaries where fresh water mingles with sea water.

During the rainy season, coastal streams coming from the continent, one from south and the other from the north, meet in Guinea and testify sedimentary littoral formations. One of the reasons why the islands are so well preserved is the people´s animist faith, which forbids economic activity in many areas regarded as sacred. Thus, many places have never been inhabited, nor its resources used. Some sacred locations are managed by family clans who bear a close relationship with the divinities that protect such places. These clans issue behavioral orientation guidelines that are to be adopted. There are also places destined for initiation rituals, which restrict access to those that work in the several ceremonial duties and also others that are only attended whether by men or women.

The archipelago lies, in the centre of a complex set, which explains its vulnerability to external influences, at the moment however extremely limited. Marine pollution is a challenge that the islands face annually. The many streams lead fresh water, organic material and plankton into the archipelago, elements that contribute to a marked biological productivity. That explains the abundance of fish, shellfish and mollusk in the region.

High densities of larval forms measured by countless oceanographic expeditions testify on its fundamental role, both in the reproduction zone and in dealing with many commercially interesting species. Life is richer in the aquatic environment of the islands. Such areas are covered with mango-trees, which occupy a third of the territory and show original adaptation of amphibian life. They have a dense root system that fixes sediments and thus limits coastal erosion and offers an ideal shelter for microorganisms. Aerial roots that are regularly submerged by tides serve as support for colonies of wild oysters.

Biological richness and the difficulty to penetrate in these coastal areas can explain the presence of unique community of aquatic animals on the west coast of Africa. Hippopotamuses, that usually inhabit fresh water, have for millennia adapted to the islands sea delta, from where they head to land in search of nourishment at the end of the day. One can occasionally notice the big dauphin near the mango-trees plantations. The archipelago is also a perfect place for migrant aquatic birds to leave the European winter and come to these *Important Bids Areas* (IBA).

The reptile community contains two species of crocodiles and five species of sea turtles which elect the archipelago as a favorite spot for spawning, namely the beaches at the small island of Poilão where around 2,000 turtles come to lay eggs every year. On a planetary scale, all sea turtles are under threat in many aspects. Sandy areas are occupied by various mollusks and are regularly prospected by the locals. In the mires, thousands of birds feed during low tide. Some birds reproduce in smaller islands away from predators. A

rich phytoplankton concentration is the basis for a very complex marine food chain. Main species are present are: the Allis shad, the Atlantic goliath grouper, the corvine, the shrimp, the ray and the shark. The survival of aquatic species depends essentially on its habitants, in this case the wetlands, since environmental change and the loss of wetlands substantially disturbs the biological diversity of aquatic and terrestrial ecosystems.

Mango-trees form an ecosystem that renews halieutic resources, a real natural laboratory and a source for nutrients. Mangrove plays a key role in the renewal of marine resources and has a primordial importance in sea fauna reproduction, representing a considerable economic interest for tropical countries. The most common vegetable formation in the region is the palm tree groves. Traditional farming uses up to ten percent of the palm oil potential. Selective logging of palm trees in areas that are destined to "*m pam pam"* rice crops probably explains the huge expansion of natural palm trees that adapt to long periods of drought and whose seeds are ever more used for newer varieties of trees.

The region shelters other kinds of vegetation generations where semi-dry forests prevail. There is a secondary vegetation level: lianas, small palm trees, shrubberies, savannas and rice fields, together playing a crucial part in the stabilization of sandy areas. The International Union for Conservation of Nature (IUCN) enlists some prohibitions in sacred places: corpses are not to be buried there and permanent settlement is forbidden. Access is barred to non-initiates and it is only admitted to initiate members of the clan to whom the sacred place pertains. Sexual intercourse and spill of human or animal blood are also prohibited. The Bijagos depend on the cashew, on the farming of cereals and fishing. In 2007 the Government tried to raise the price of cashew in a period of unstable economic activity, which resulted in an almost-boycott against the product by the international market. The Government is aware of the value of its maritime resources. Other natural resources correspond to industries that have steadily grown but may eventually boom and aggravate environmental depletion (MADEIRA, 2009).

VULNERABILITIES IN THE BIJAGOS ARCHIPELAGO

The Bijagos have been living almost without any help from outside. Local production has been maintained through an extensive and diversified use of resources, such as the aforementioned rice, palm oil and wine, cashew, fish, seafood, etc. rice is the staple food, whereas palm trees supply fruits, oil and wine, as well as a vast range of other products used in cooking. Its wood is also used in housing and handicraft.

The sacred status that foreshadows preserved areas greatly contributes to preserve certain areas, such as sea branch capes and islands used in ceremonies and initiations. However, the archipelago has been coveted by human pressure forces for several years now, threatening the centenary balance of the islands and contributing to a more fragile ecosystem. Although the Biosphere Reserve Classification from UNESCO has been determined back in 1996, the rules of longstanding management linger.

The problem with "pointers" (small modern farmers), especially since 1986, has become severe. At one time the current territorial legislation did not offer any operational lawful frame to traditional territorial rights and didn´t allow for the transition of traditional dependencies to the system of territorial property. The law does not acknowledge collective appropriation of land but only by a physical, recognized individual. This system excludes rural communities. The two thirds of allotments awarded between 1985 and 1990 range from 50 to 500 hectares. The average surface per allotment has increased from 24 hectares in 1975 to 245 in 1986 and 419 in 1990, which corroborates the occurring rapid development, frequently with speculative goals (CHÉNEAU-LOQUAY, 1998).

Some of the problem the archipelago generally faces are: insularity; difficulties in transportation and communication between islands; precarious health care; great shortage at the educational level; large migrant flux and high mortality rate; potable water shortage: insufficient food production; great vulnerability of the ecosystems; very low technological level in techniques and production equipment; insufficient and inadequate trade; frailty in the management structures and lack of specialized professionals; lack of investment resources; detachment between projects and socioeconomic and cultural realities (religious calendars and social structure).

Poverty is an important component in the archipelago´s daily life. Traditional use of resources enables a minimum standard of survival. On the other hand, shortages in health care, education, transportation and communications are a serious barrier for a longstanding development. The feeling of isolation is more bitterly expressed by younger people and one of the most frequent complaints is the lack of efficient transportation to the continent. The only safe connection to Bissau runs once or twice a week and takes several hours to reach its destination.

School, despite running in severe shortage of equipment and staff, still stands for a mean of social promotion in the urban context. Attending school means entering the world of progress, not so much because of the concepts apprehended, but more as a label that distinguishes a student from the rest of the rural population. In that sense, school enables

the acquisition of the notion of modernity and of a wider world vision. Contrary to the younger´s opinion that school brings social and cultural valuation, older people have the pessimist certainty that school is not a necessity, for the knowledge transmission system assures the fulfillment of basic daily needs. This depicts the modern world *versus* traditional world dichotomy.

Emigration is a luxury only few can afford. In many cases, such desire is frustrating and young people struggle between the village (*tabancas*) and the the dream of living in a city in Europe. In other cases, even moving to Bissau may pose enormous difficulties, for many have no relatives in the capital that may finance their education, while finding a job reveals itself harder. Adolescents from the archipelago have less opportunities to leave the country that those in Bissau (BORDONARO & PUSSETTI, 2006). According to what I've witnessed, those who managed to do so are regarded with admiration and aggrandized to a near-hero status. These young people are well informed about the outside worlds and recent technologies, as well as about how their lives could change drastically if they leave. Nevertheless, this perception and its imaginative traces causes frustration and isolation feelings, for they feel held back in their own country. Emigration becomes an obsession but opportunities are so scare, this desire gives place to a whole set of urban legends.

The Formosa islands complex is subject to the greatest pressure by fact that it is situated close to the continent. The Government has conceded it with the "Protected Communal Area" status and corresponding obedience to traditional uses. Such regulative protection aims at the sacralization of some spaces (sea branches, capes and islands). However, the centuries old balance of the archipelago is still under threat by the illegal intrusion of industrial fishing from Europe and Asia, not concerned with local customs. They prey on sharks in search of is fins and use non-degradable nets, as well as endure fishing in sea opening, where the manatee fish wanders. Also the attempts to build touristic complexes, the progressive introduction of currency in the Bijago economy and the threat of offshore oil ring and docks for dismantled ships poses great pollution dangers and promote social misery.

The Bijagos archipelago covers 2,500 sq km of ocean are facing a strong pressure upon natural forest conformations due to the great economic dependence the population feels toward those resources. Rain water washes sand and vegetable and rock remains into the wet areas, which causes considerable aggradations of tide flats, lagoons and rivers, and sedimentation of the inter-tidal areas of the archipelago (CÓ, 2003, p. 12). Former perfectly

navigable estuaries are examples of how human activity can cause severe damage to natural habitats, especially in estuaries and coastal wetlands.

Traditional fishing has always held an important role in West Arica coast. In less than twenty years, the growing use of engines in fishing boats and the comfort of refrigerated storage have given fishermen a better time organization. Furthermore, globalization has created demand for new products, which influenced fishing behavior and, consequently, preservation of some species of fish, turtles and marine mammals. Development policies focusing on traditional fishing do not adequately reflect the importance of these charges. There is a tendency to use inappropriate reference scales, be it in terms of spaces (national borders precede ecosystems) or time (long-term consequences of such plans are rarely taken into account).

The archipelago's still abundant natural resources attract European an Asian industrial fishing that throw their nets during the night in the canals that separate the islands. Artisanal pirogues come from different countries to fish, mainly sharks, whose fins are quite valued in Asian markets. Unlike survival fishing, commercial artisanal fishing covers its whole legal area. Most vessels prospect around estuaries and rivers, causing an increase in the capture o sedentary species and its dramatic reduction.

In spite of the efforts made by the Fishing Administration, commercial artisanal fishing is still impaired by insufficient icing, which forces fishermen to direct production to transformative processes: smoking, drying and brine salting. Smoking is not only a defaulting process, but also destroys the vegetable cover, especially mangroves. Authorized vessels are located mainly in the extreme south of the country, although some can be up north according to the closest country of origin. Fishermen settle in permanent, as well as temporary fishing camps, mostly in the archipelago. There are also unauthorized vessels, frequently with overpowered engines that allow them to go abroad, but precarious nonetheless. Their illegal activities are reported by other ships that sail ashore and by artisanal fishing surveillance agents. Most of these boats perform specialized fishing on the stony bottoms and aim at capturing noble species from the *sparidae* community (big red carp and big gilthead sea bream), as well as the *chondrichthyes* (sharks and rays), due to the lucrative trade of fins (DIAPOL, 2007). Most expeditions happen at the end day. The peak in fishing occurs during dry season (October to May). During rainy season, a special fishing of barracudas takes place, a species that makes its reproduction migration along the Big Buda River.

Advanced artisanal fishing is carried out by vessels with powerful engines. These are big Senegalese pirogues that are equipped with refrigerated containers and some with positioning detection devices. This kind of advanced fishing is done beyond the archipelago. Some vessels are open boats, most of which build with fiberglass. There isn't a national fleet in Guinea-Bissau, but many companies that only buy fish and sell fish products, other still devoted to conservation. Given that no ships are available, some companies charter foreign vessels. The most captured species by these vessels are the *sardinela aurita*, abundant from December to April, and the *trachurus trachuras*, *trachurus trecae* and the *scombreomorus tritor*. Promoting such fishing envisages, on one hand, the prospection of areas further away the coast and, on the other hand, to increase discharges, without increasing fishing pressure along the coast (NJOCK & WESTLUND, 2010; BARROS, 1998; SAID & FERRAZ, 1996).

This is not least due to the fact that the last ten years have seen a growing concern towards drug trafficking in Africa. Efforts in the fight against this tendency need to be intensified, so as to respond to security concerns from many countries. Guinea-Bissau is being used as a sort of hub and destination for drug deposit and consumption. It only takes a two-day trip eastward along the 10th parallel north until the Gulf of Guinea-Bissau. Drug dealers in Latin America began using insolated islands at the archipelagos as a place for illegal smuggling of drugs into Europe. Not only does the "uncrowded waters" of the area constitute a "paradise" in what comes to store large amounts o drugs and boats, but also the government lacks the capacity to properly patrol the coast and intercept dealers.

The population's socioeconomic condition and the absence of institutional and operational capacities to fight international illicit traffic are probable causes for attracting organized crime networks. The Guinean Establishment faces a collapse situation due to its inability to assure sovereignty over its territory and the government has requested international financial support to deal with this plague

SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL CHALLENGES

For the past few years numerous external powers have been interfering with the balance of bijago society. The archipelago's harmonious and wild the environment or the traditional society. The market globalization has encouraged a gradual commoditization of the economy, which is being steered towards commercial crops, such as cashew and palm derivates. With the development of trade, transportation and information, local adolescents

are becoming increasingly fascinated by emigration, something that endangers social organization and traditional culture.

Cooperation between international preservation agencies such as UNESCO and IUCN and others through marine and regional coast preservation programmes and international investments may result in the development of a sustainable fishing industry. Such development could allow the bijago people to carry on its traditional way of living and at the same time benefit from economic growth.

The EU has been supporting investment projects necessary to assure refrigeration of the fish heading for European markets. However, more financial assistance is required to improve dock infrastructures thus helping promote foreign investment. In the last years, the IUCN gathered researchers, Guinean government officials, fishermen and island residents to discuss the threat such industry may pose to the environment, both maritime and terrestrial, as well as the best way to strategically regulate it in a sustainable manner.

The main problem is the fact that the government of Guinea-Bissau lacks the necessary resources to strengthen regulations at its disposal. Shortage of fuel-limits the number of trips required for patrolling the territory's waters. The navy has an extremely small fleet that suffers from defective technical, logistic and transmission means. This hinders the apprehension of vessels involved in illicit activities (BOUBACAR-SID, 2007). If it were possible to avoid illegal fishing, this maritime area, regarded as one of the richest in Africa, could be the main resources of the country.

In 1980, Guinea-Bissau entered an agreement with the then-called European Community, allowing European vessels to fish in Guinean waters, in exchange for assistance. The agreement also includes assistance with maritime patrol so as to control piracy and illegal fishing. It is a European Union priority to assure access to fish resources in West Africa, since latest years have seen a reduction in fish quotas on the EU's waters. It should be noted there is an agreement dated back from 1993 between the Guinean and Senegalese governments, consisting on the conjoint administration of both countries' maritime areas. Fish resources are divided according to joint administration resolutions.

Socioeconomic development is the key for the reconstruction of countries like Guinea-Bissau, but assistance in such development must come to the envisaged beneficiaries. A complete transparency and strict responsibility are the requisites for implementing development assistance. Sustainable economic development is Guinea´s present challenge. The country needs therefore to receive the necessary attention from international institutions and the European Union in order to be able to protect its people

and its environment. Low financial value projects enable daily concerns to be addressed without inducing changes in traditional structures, its functioning and production. Development must not and shall not be fulfilled otherwise than in conformity with the respect for local values and the people´s participation, making it qualitative and not so quantitative.

Bearing this in mind, national and international institutions have mobilized themselves in order to promote population settlement, preservation of protected areas and establish regulations on fish quotas. The Institute for Biodiversity and Protected Areas in Guinea Bissau (IBAP) together with international NGOs has been supporting the insular community in strengthening the enforcement of local traditional laws. From now on, goals in ecosystem preservation and economic efficiency will become wider within longstanding development logic, hopefully resulting in the improvement of living standards (MADEIRA, 2015).

The Bijagos Archipelago captivates significant biodiversity and production of natural goods in relation to the rest of the country. It represents a huge potential in tourism, especially ecotourism, although this sector has suffered a negative impact with political instability. A frail natural environment is not compatible with mass tourism. Given the number of requested hotel construction projects, strict criteria and rules should apply. Thus, a longstanding use of resources, preservation of species and biological divercity can be secured, as well the durability of such touristic activities.

Some hotels have been fulfilling norms and environmental requirements help in the Environment Management plans. In the case of the Orango Park Hotel, which was owned by Luc Hoffman (Head of Roche Multinational and President of MAVA) revenues revert to local communities, namely for health, education, horticulture, handicraft and transportation. The hotel is located in Ponta Anabaca, on the island of Great Orango within the Orango National Park. A place to experience lives the values of conservation and sustainability. Where to meet biodiversity and cultural tradition united in the same privileged space. The hotel is managed by the *Associação Guiné-Bissau Orango*, non-profit entity that participates in a project of development of ecotourism in the National Parks of the country. Its main partners are the CBD-Habitat Foundation, a nonprofit foundation dedicated to the development of projects related to biodiversity conservation and habitat, while facilitating relations between man and his natural environment.

CONCLUSIONS

Traditional norms in bijagos villages have suffered deep transformation in recent years. Numerous cultural contacts and successive changes in the political and economic situation ever since the post-independence period have affected the communities. The archipelago has been punished by its current condition, mainly in what comes to the excessive exploitation of fishing and tourism resources. The islands economic potential depends on the preservation of its primate ecosystems. The archipelago is under threat. A quarter of the islands are inhabited. Risks increase due to excessive fishing activities in reproduction areas and, more recently, due to anarchic tourist projects.

Regarding space management and environmental protection, the archipelago has formed a Biosphere Reserve in 1996. This emerged from the need to preserve the fauna and the flora in its widest diversity. Having that in mind, the State of Guinea-Bissau created national parks in two groups of islands: the Southern Group in Orango (Orango National Park (PNO), a Centre for salt water hippopotamuses, and the Eastern Group in João Vieira Poilão (João Vieira Polão National Park (PNMJVP), a Centre for sea turtles. The Marine Community Protected Area within the islands of Formosa, Nago and Chediã (Urok) was also created. The government is concerned with planning and protecting animal and plant resources in order to preserve rare species, such as the baby turtle, and ensure the necessary genetic resources for future generations.

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