



## I) General Description

# Banc d'Arguin National Park (PNBA)





The Banc d'Arguin National Park (abbreviated to PNBA in French), located in the Islamic Republic of Mauritania, was created in 1976. Thanks to its size (12,000 km2) and remarkable biodiversity, it is the most important Marine Protected Area in western Africa.

The PNBA ecosystem is exceptionally rich in nutrients owing to a vast expanse of marshland covered with seagrass beds, a significant volume of windblown sediment from the continent, and the results of permanent **upwelling**<sup>1</sup> around the Cap Blanc. This wealth ensures that the local marine and coastal environment remains sufficiently rich and diverse to support important communities of fish, birds and marine mammals.

The Banc d'Arguin is one of the most important zones in the world for nesting birds and Palearctic migratory waders. Stretching along the Atlantic coast, this Park is formed of sand dunes, coastal swamps, small islands and shallow coastal waters. The austerity of the desert and the biodiversity of the marine area results in a land-and seascape of exceptional contrasts and natural value.

The region's mild climate and an absence of human interference make the park one of the most important sites in the world for observing the particular species that live here. However, the PNBA is confronted by serious threats:

- the newly constructed Trans-Sahara road, which runs close to the park
- the discovery of petrol near the park boundaries (new oil platforms)
- over-fishing (despite strict regulations governing fishing within park boundaries, and the fact that only traditional fishing techniques, without motors, may be used)
- global warming (the area is particularly at risk from any increase in sea level).

Thanks to its international renown, the PNBA has always benefited from substantial – if irregular – international support from bilateral and multilateral donors and international NGOs. Together with the Park managers, all donors agreed that a sustainable financial mechanism had to be put in place. In the early 2000s, they concluded that an En-

Upwelling is an oceanographic phenomenon that describes the wind-driven motion of dense, cooler, and usually nutrient-rich water towards the ocean surface, replacing the warmer, usually nutrient-depleted surface water. The nutrient-rich upwelled water stimulates the growth and reproduction of primary producers such as phytoplankton. Upwelling results in high levels of primary productivity and thus fishery production. Approximately 25 per cent of total global marine fish catches come from five upwellings that occupy only 5 per cent of the total ocean area. Upwellings that are driven by coastal currents or diverging open ocean have the greatest impact on nutrient-enriched waters and global fishery yields.

vironmental Fund would be the most appropriate tool to secure the long-term financing of the PNBA and, possibly, other PAs in Mauritania. Contributors were convinced that an EF represented an interesting exit strategy: a way in which international cooperation might gradually withdraw while ensuring the PNBA had sufficient funds in hand to ensure the sustainability of institutional support and conservation activities for years to come.

#### **Establishing the BaCoMaB**

The Banc d'Arguin and Coastal and Marine Biodiversity Trust Fund (BaCoMaB) was formally established on January 2009, almost 10 years after the drafting of the first feasibility study for the initiative. One of the reasons for this long timeframe, besides the usual institutional issues around EF establishment, was that donors wished to see the Mauritanian government contribute to the capitalization of the Fund. Like many trust funds for conservation in Francophone Africa, the BaCoMaB is a Foundation registered in London under English law. The offshore location, chosen by the Fund's Steering Committee, has many advantages, including tax exemptions for European and American donors.

The BACoMaB is supported by Mauritanian technical and political authorities at the highest level. It was officially recognized by the Council of Ministers in December 2010, which gave the EF the authority to receive donations and bequests, and manage public funds. This was a powerful act, through which the Mauritanian government demonstrated its commitment to the conservation of coastal and marine biodiversity and legitimized the activities of the Foundation for that purpose.

The objectives of the BACoMaB are:

- to promote the conservation, protection and improvement of the physical and natural environment of PNBA and other coastal and marine PAs in Mauritania
- 2. to promote, in the public interest, the sustainable development of 'beneficiary sites' by:
  - conserving, protecting and improving the environment and the sustainable use of natural resources
  - reducing poverty and improving living conditions for the resident populations
  - c. promoting sustainable means of economic growth and regeneration
- 3. to promote public education on biodiversity, conservation and sustainable management of beneficiary sites.

The BACoMaB's endowment fund now stands at EUR 17.3 million and, interestingly, the Mauritanian authorities are one of the largest contributors:

Donor	State	Amount (EUR)
Mauritanian Government / EU	Ongoing	2.8 million
MAVA (Foundation)	Ongoing	6 million
BMZ (German Cooperation)	Ongoing	5 million
AFD	Accepted	2.5 million
FFEM	Likely	l million
Extractive industries	Likely	n/a
GEF	Likey	n/a
Spanish Cooperation	Quite likely	n/a
Total (2014)		17.3 million

The average gross return of the fund has been 4.08 per cent per annum, which is lower than the international average of EFs. With the annualized inflation of the Euro at 1.94 per cent, the historical net return of the fund equates to 2.14 per cent.

### II) Analysis

### Governmental participation key to ensure the capitalization of the BaCoMaB by donors

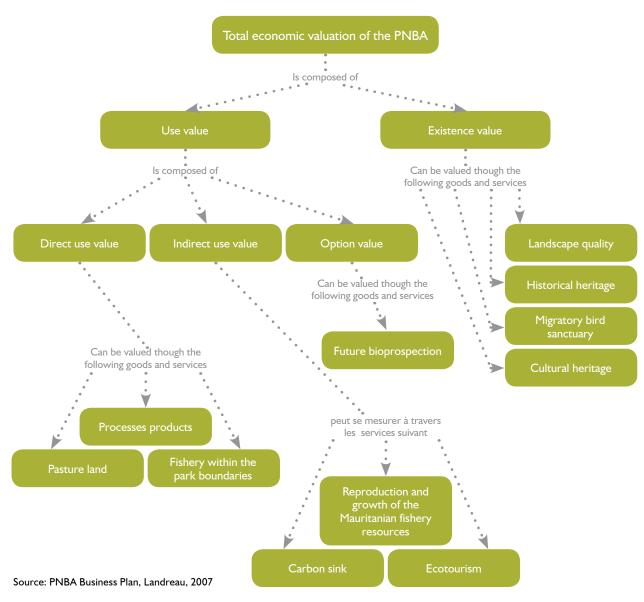
To ensure the security of the mechanism, it was felt that national commitment was key; this would underpin the success of the EF's creation and continued operation. Indeed, a commitment from the Mauritanian government served as a catalyst for action and helped build stakeholders' confidence. The main options available to the Mauritanian government to fund the EF were analyzed in detail:

- Introducing new financial instruments, such as airport tax, which would supply the fund (revolving).
- Using some of the revenue from oil exploitation (offshore exploitation having recently started in Mauritania).
- Using the Fisheries Agreement between the EU and Mauritania to support the PNBA.

### Economic valuation, key to determining and justifying a resource mobilization strategy

The PNBA came up with its first business plan in 2007. This has been a key document that has helped the PNBA define its financial needs over the long term, determine the scale of funding gap it faced, and come up with a list of solutions to fill this gap.

### Mapping of PNBA's environmental services



The mapping of environmental services provided by the park was supplemented by a quantitative economic valuation of the park and a first attempt at monetary evaluation. It emerged clearly that the most valuable service provided by the PNBA was its role in securing the reproduction of fish stocks. The PNBA is a nursery and breeding area for several key fish species of interest to international industrial fleets. Although it is difficult to guarantee the accuracy of the calculation of indirect use value, there is evidence that the reproduction of fish that takes place within the park boundaries, where many fish reach maturity, accounts for a substantial proportion of Mauritanian fish stocks. The most likely hypothesis is that 60 per cent of the total fish stocks in Mauritania's Exclusive Economic Zones (EEZ) benefit directly from the existence of the PNBA.

At the national level, revenue from fisheries represents about 30 per cent of the national budget. Fisheries account for half of foreign exchange earnings in Mauritania and generate more than one-third of the country's jobs (being the top employer). An initial monetary evaluation of the PNBA's ecological functions indicated that they generate between EUR 300 and 350 million per year (Fernandez, 2009). This is likely to be an underestimate, because it does not take into account the value of biodiversity, landscapes and heritage of archaeological and historical character.<sup>2</sup> In any case, the evaluation put into perspective the huge economic importance of the PNBA as a breeding and nursery area for several fish species regarded as key by the international industrial fleet. Mauritanian authorities and the local EU Delegation took this on board and agreed to give additional support to the PNBA.

#### National capitalization of the BaCoMab through fishing agreements

The first fishing agreement concluded between the EU and Mauritania dates back to 1987.<sup>3</sup> The EU has a special interest in maintaining access to Mauritanian resources because the country offers particularly rich and diverse fishing grounds in close proximity to Europe. Furthermore, Mauritania's fishing fleet does not allow its grounds to be fished to their full potential (the fishing limits are a frequent subject of international debate).

The fisheries agreement between the EU and Mauritania that came into force on I August 2006, for a period of six years, covered a total of EUR 305 million for the period 2008–2012. Of these funds, EUR 65 million were allocated to the definition and implementation of a sectoral fisheries policy. Of this EUR 65 million, the PNBA receives EUR I million per year, of which 50 per cent is allocated to the BACoMaB as payment for ecosystem services rendered. As explained above, this agreement was the result of a strategy to secure the long-term financing of the PNBA and other MPAs. The Mauritanian Government and the BaCoMab formally agreed the following arrangements, under a signed Convention:

- Article 1: The contributor grants a stake of up to EUR 2.8 million for the capitalization of the endowment of the beneficiary under long-term financing in the form of a gift in perpetuity for the sustainable management of coastal and marine protected areas in Mauritania.
- Article 3: The beneficiary undertakes to set up an executive unit in Mauritania and to develop
  management tools, transparent procurement rules and a system of monitoring and evaluation
  to ensure traceability and measurement of impact of activities relating to the objectives of the
  recipient.
- Article 5: The beneficiary undertakes to provide to the contributor (i) an annual report of activity on March 31 of each year for the activities of the previous year, (ii) quarterly reports on asset management, (iii) an audit of the financial statements of the Foundation report.

<sup>&</sup>lt;sup>2</sup> It is worth noting that the recent discovery of oil in Mauritanian EEZ could make this monetary evaluation counterproductive.

<sup>&</sup>lt;sup>3</sup> For a full legal history of fishing agreements between the EU and Mauritania: http://ec.europa.eu/fisheries/cfp/international/agreements/mauritania/index\_en.htm [accessed 03.09.2013]

#### Schedule of payments to the BaCoMaB

<b>P</b> ayments	Amount (EUR)	Date
I	505,915.00	26/08/2010
2	546,797.90	26/01/2011
3	391,003.01	14/12/2011
4	455,927.05	25/04/2013
5	450,178.52	31/08/2013
6	450,178.52	31/03/2014
Total	2,800,000	

### III) Lessons Learned

Importance of the governmental participation to the capitalization of the BaCoMaB (through Fishing Agreements) to secure the establishment of the fund and the full involvement of donor agencies.

The valuation of the PNBA provided a better understanding of services rendered by the Park, which in turn encouraged the EU to finance the Park, and initiated a debate on how to secure such resources over the long term.

The economic valuation of the PNBA was considered to be very useful and the FFEM is considering making a contribution to the BACoMaB's capital by funding a scientific assessment of the Banc d'Arguin's economic worth. The results of this study should strengthen the BACoMaB's case for adopting an ambitious funding diversification policy (to include e.g. PES, 'blue carbon').

Economic valuation can be a powerful tool (in this case fishery resources were key), even if there is a risk of concluding that uses other than conservation (such as oil or mineral extraction) might return greater profits in the short term.

The BaCoMaB has now set new objectives: the EF wishes to have at least EUR 35 million by 2017, and EUR 55 million in 2020; this will be invested in perpetuity in 'ethical or socially responsible' offshore financial markets, according to an investment policy to be established by the EF's Board.

The BaCoMaB funding strategy takes into account ongoing governmental support through EU fishing agreements, as well as additional donations from existing and new donors, and EUR I5 million from extractive industries (offshore petroleum sites near the park boundaries).

To a certain extent, the strategy adopted by the PNBA could be replicated in other MPAs where local fishery production is high.

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