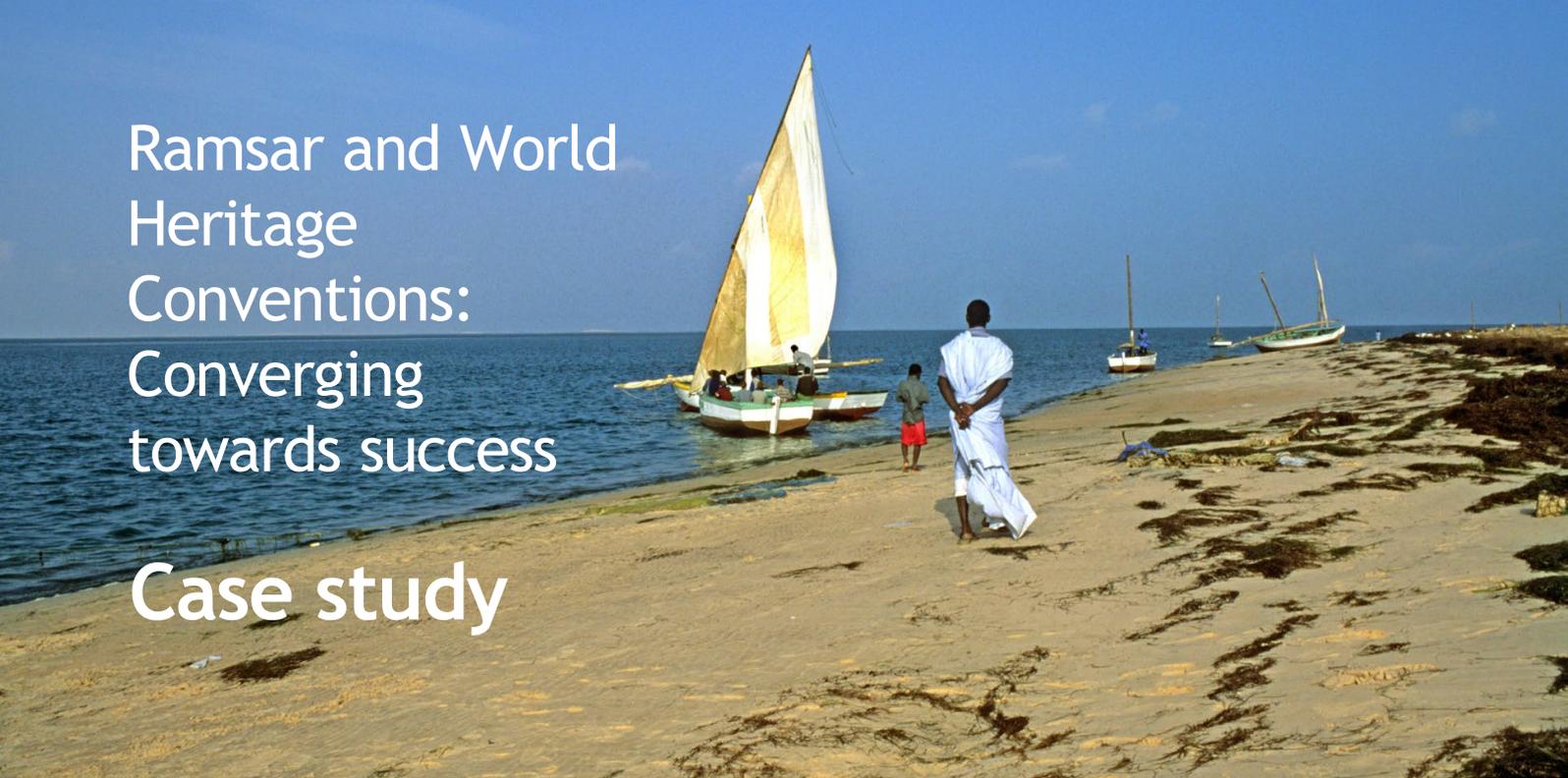


Ramsar and World Heritage Conventions: Converging towards success

Case study



Fishermen and their traditional boats, Banc d'Arguin, Mauritania (Credit: Hermes Images, AGF Srl / Alamy Stock Photo)

Banc d'Arguin National Park, Mauritania

Summary

Fringing some 30% of the Atlantic coast of Mauritania, the park comprises a mosaic of sand-dunes, coastal swamps, small islands, mangroves, sea grass beds and shallow coastal waters. Stretching for some 150km from Cap Blanc in the north to Cap Timiris in the south, the Park is the largest coastal park in Africa with a surface area of 12,000 km². The site is a stunning example of the juxtaposition of the harsh desert environment and the vibrancy of the marine zone. The boundaries of the Ramsar Site and the World Heritage property overlap and follow the National Park boundary.

Permanent upwelling, nutrient rich seawater stimulates high rates of plankton production which drives a highly productive coastal ecosystem. Much of the marine waters of the Park remain less than 5m deep up to 40km from the coast. Over 400km² of tidal mudflats support upwards of 2 million shorebirds, the largest and most important concentration of Palaearctic birds in the world. For instance, over two thirds of the world population of bar-tailed godwits and almost half of the global population of red knots visit the site. In addition to the diversity and number of waterbirds, the endangered green sea turtle and leatherback turtle, bottlenose dolphin and Atlantic hump-backed dolphin are all present in the marine waters. The local people, the Imraguen, live in scattered villages within the park and use traditional fishing methods, which are increasingly under threat from immigrant and industrial fishing activities.



Site Description

Lying on the coastline of Mauritania, the Park represents a transition zone between the Sahara desert to the east and the Atlantic Ocean to the west. The coastal waters in this part of West Africa are influenced by the cold Canary Island ocean current and a permanent upwelling of nutrients and minerals which generate high levels of plankton production, as well as by the warmer South Equatorial current which follows the intertropical convergence front as far as Cap Blanc. The highly productive waters, combined with the shallow (typically less than 5m deep) submarine tidal bank which extends 80km from the shoreline, generate an ecosystem teeming with life.

The coastline is a mosaic of windblown sand dunes, marshes, mangroves, tidal mudflats, channels and creeks, sandbanks and small islands. Over 190 plant species have been recorded within the park and the extensive wetland habitats provide the biggest fish feeding and spawning area in West Africa. The extensive shallows are a result of the wind blown transport of sand from the desert being progressively deposited on top of sediments deposited in relict estuaries. The supply of wind-blown sediment combined with upwelling waters nourishes the wetland and underpins the diverse food webs of the area.

World Heritage and Ramsar designations

The Ramsar site was designated in 1982 and covers 1,200,000 ha. The scale and diversity of the wetland habitats qualifies the site under Criterion 1. The site qualifies for designation under several criteria but specifically is globally significant for numbers of waterbirds (Criterion 5), with more than 20 different species exceeding the 1% threshold value (Criterion 6). The presence of the endangered green sea turtle and species of cetaceans, seals, rays and sharks further qualifies the area under Criteria 2 and 8.

The resident people, the Imraguen, and their traditional fishing practices, along with many Neolithic archaeological sites are formally recognised as part of the overall ecological character of the Ramsar Site. The Mauritanian Institute for Oceanographic and Fisheries Research (IMROP) has been working with the National Park of Banc d'Arguin (PNBA) to better understand the capture fisheries. Specific management measures have been established to encourage these traditional fishing practices and to ensure the sustainability of fish stocks.

The global importance of the Banc d'Arguin for nesting and migratory wading birds and its productive mosaic of diverse habitats qualified the site for inscription as a World Heritage property in 1989. The boundaries of the World Heritage property match those of the Ramsar Site. The rich and diverse marshes covered with seagrass beds, and the maintenance of a marine and coastal environment sufficiently rich and diverse to support important communities of fish, birds and marine mammals qualifies the site as being of Outstanding Universal Value under Criterion ix.

The diversity and magnitude of the wetlands provide shelter to more than two million migratory birds from northern Europe,

Siberia and Greenland. The nesting bird population number and diversity ranges between 25,000 and 40,000 pairs belonging to 15 bird species. The shallows and islands support 45 fish species, 11 species of shellfish and numerous mollusc and crustacean species. The site also contains several species of marine turtles, notably the endangered green sea turtle, and the bottlenose dolphin and the Atlantic hump-backed dolphin are frequently observed (Criterion x).

The role of cultural values, practices and traditions in wetland conservation

Neolithic archaeological sites and vestiges of the Almoravid civilisation (from around the year 1000 CE) found on some of the scattered islands in the park are testament to the longevity of the human-environmental interactions in this part of West Africa. The local Imraguen people relate many of their customs to the natural environment. Until the 1990's these nomadic people moved their small villages of makeshift huts to follow the movements of large shoals of fish, especially mullet, along the coast, maintaining an age-old life style, based almost exclusively on harvesting migratory fish and utilising traditional sail boats and techniques unchanged since they were recorded in the 15th century by Portuguese explorers. Further afield in the desert areas, some nomadic camel and goat herding is practiced but this has declined in recent years as a result of desertification.

Some 1,000 Imraguen live in seven villages within the park, many at Cap Timiris. Because of a complete absence of freshwater they are dependent on supplies collected outside the park or from those provided, expensively, by the navy. Traditionally the men deal with the fishing whilst the women are involved in producing roe, tishar (small pieces of dried and crumbled mullet) and mullet oil, with techniques and knowledge passing from mother to daughter. However, traditional fishing without using boats and the sustainable non-polluting method using canoes is threatened by the pressure of illegal industrial fishing boats and from fishermen, mainly from Senegal, in motorised canoes and using gill nets to catch sharks and rays for the lucrative Far East market. The World Heritage Committee (UNESCO 2016) through its adopted decisions encouraged the State Party to continue involving the local communities in the surveillance and management of the property and requested that a permit system and a ban on motorized boats be put in place to reduce overfishing by immigrant non-resident communities.

Competition, and the high prices available for shark and ray fins, attracted some Imraguen to abandon their traditional practices and to take up motorised shark hunting. However, under pressure from the Government and NGOs in the early 2000s, the fishermen of the Imraguen agreed voluntarily to hand over their nets in return for cash, one euro per metre of net returned, to preserve the shark and ray species in the Banc d'Arguin National Park. Whilst this return to traditional fishing activities has generated positive conservation outcomes and the environmental benefits are recognised by the Imraguen, concerns have been raised by the local community. A 71 year old fisherman, Soueilim Ould Bilal, summed up the situation:



Portrait of an Imraguen fisherman drinking tea, Banc d'Arguin, Mauritania (Credit: SuperStock / Alamy Stock Photo)

“In just one day, I used to capture 400 rays with my nets which are going to be banned from now on. What I will receive (as compensation) I will get only once. I used to get money every day from this fishing.”

However, the Imraguen recognise the need to defend and protect this precious environment, and pride in their traditional ways lies at the heart of the Imraguen thinking. As a tribal elder stated:

“If an Amrig (member of Imraguen tribe) gives you his word he will stick to it.”

Through training and knowledge exchange, efforts are also being made by European-based NGOs to improve the quality of the traditional fish products produced by the Imraguen, and especially the salt-cured roe or *bottarga*. As the quality of the products improves opportunities are being pursued to find alternative markets, both nationally and internationally, and to directly manage the sale of transformed products in order to maintain traditional practices and improve the prosperity of the local communities. In March 2016, the World Heritage Centre organised a regional workshop in the park on the role of local communities in the sustainable management and conservation of World Heritage properties. The valuable contributions of the Imraguen to this workshop enabled a better understanding of the importance of consulting and involving local communities in order to improve the state of conservation of World Heritage properties.

Future outlook

The Park remains threatened with unsustainable over-fishing by international industrial-scale exploitation of the waters beyond the seaward boundary and by pirate fishing fleets from neighbouring countries within the Park. The traditional, sustainable fishing methods practiced by the Imraguen are permitted within Park limits under a law

passed in 2000. Effective surveillance and monitoring remains a challenge across such a vast area and management capacity and resources are lacking. However, the continued efforts to engage with the Imraguen people, and for them to actively participate in surveillance and the management of the fish stocks, bodes well for the future of the site.

Lessons learned

Even in areas with a very low human population density, as is the case in the Banc d'Arguin National Park, problems can arise and wetland wildlife can be degraded. This case study has demonstrated that these problems may not be a result of actions of the local community but may arise due to external pressures and forces. Therefore it is important to capture some key lessons learned.

- It is considered essential to combine the local and indigenous knowledge of the Imraguen community with wider science to ensure that the traditional fishing techniques remain sustainable and guarantee the conservation of the area.
- The local communities are crucial in the surveillance of non-traditional fishing techniques, the implementation of a permit system and in the management and conservation of the area.
- The decisions adopted by the World Heritage Committee as part of the reporting on the state of conservation of properties inscribed on the World Heritage List are assisting site managers with defining and prioritising conservation actions on the ground. By encouraging the State Party to involve local communities in the management of the Banc d'Arguin National Park the World Heritage Committee decisions are contributing to the ongoing conservation of the area.
- By developing opportunities to generate improved prosperity, supported by information exchange and knowledge sharing, it is possible to protect cultural traditions, improve human well-being and protect the biodiversity of the area.