

High tech to secure fish stocks

Mauritania's coastal waters are among the world's richest fishing grounds. However, just as in many other countries around the globe, the sustainable use of this resource is under threat from illegal fishing and overfishing. KfW contributes to protecting the valuable fishing grounds with the aid of modern surveillance systems and rigorous conservation and species protection measures.



In Mauritania, some 60,000 people directly or indirectly earn their living from fishing.

Photo: KfW Bankengruppe/M. Ruffert

Few people would associate Mauritania with great abundance. Situated on the western edge of the Sahara, desert sands constitute roughly eighty percent of this African country. Water shortage and drought are prevalent. Nonetheless, this desert nation also has a lavish, abundant side to it where land meets ocean: Mauritania's 700 kilometre long coastline, which stretches from the Western Sahara in the north to Senegal in the south, is among the world's most plentiful ocean fishing grounds. Meagres, gilt-head seabreams, squid, as well as tuna, seabass, spiny lobsters, mackerels and

many other species can be found here. These waters owe their great diversity to two ocean currents of different temperatures which meet off the African seaboard and provide ideal conditions for numerous fish species.

For many years, mostly foreign fishers, if anyone at all, exploited these rich fishing grounds "outside" the country. The Mauritians themselves are nomads by tradition, herding livestock, which they drive with their families across the country. They had not much of an interest in fishing as they rarely consumed fish. As a result, fishing villages were few and far between. However, in the 1970s the situation began to change. Driven by government initiative the fishing sector has become a pillar of the Mauritanian economy and meanwhile has even developed into the backbone of the national budget. Almost a quarter of government revenue is generated

from the sale of fishing licenses and other income generated by the sector. Moreover, some 60,000 people directly or indirectly earn their living from fishing. The incomes generated in the sector feed more than 360,000 people or ten percent of the population. The fact that the processing industry and trade depend on the fishing production chain makes the sector that much more important for this structurally weak country. Women in particular find employment and prospects in the sector.

■ Controls to halt overfishing

Illegal fishing and overfishing, however, threaten fish stocks and thus the livelihoods of several hundred thousand Mauritians. One of KfW's objectives is, in consultation with the Mauritanian government and as commissioned by the German Federal

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Ministry for Economic Cooperation and Development (BMZ), to take action to remedy the situation. KfW has been committed for 25 years now to enabling effective monitoring of the 200-mile zone off the Mauritanian coast for illegal fishing and the catching of prohibited species. In 1990, KfW started by funding a first patrol vessel. Since that time, KfW has supported the installation of state-of-the-art technology, i.e. a satellite system combined with a variety of surveillance and radar stations that are lined up along the coast at regular intervals from north to south, like pearls on a string. A total of 40 million euros has been made available for fisheries surveillance to date. All vessels travelling through Mauritanian waters must now transmit exact location data and must comply with established fishing zones and times as a precondition for receiving licences for transit passage or fishing. Satellite communication is used to receive these data in modern monitoring stations where they are gathered and assessed. This system is complemented by radar stations along the entire coast which gather information on ships without satellite links or whose equipment is not active. Radar allows the coastguard to locate such vessels. Funding is also provided for surveillance vessels and patrol vessels, in addition to the satellite system and the radar array. As soon as the surveillance centre notifies the presence of an intruder, the boats move out to apprehend the offender. Thanks to modern technology this is no longer a major challenge.

All these measures aim at protecting the country's rich fish stocks, so

KfW engagement in Mauritania

KfW, in addition to the French Development Agency AFD, the private conservation foundation MAVA, and the European Union, is among the main donors contributing to securing fish stocks and maintaining biodiversity in Mauritania. The KfW project on "Fisheries surveillance for sustainable resource management" has now entered its fifth phase. The next planned steps include a dedicated berth at the coastguard's headquarter and an additional radar station to further increase monitoring density. Moreover, KfW is funding a new patrol boat for Mauritania's southern coastal region.

as to also allow the next generation of Mauritians to earn a living from fishing and safeguard the state's future revenue from the sector. In its activities, KfW works in close cooperation with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) which for many years had seconded an advisor to the Mauritanian Fisheries Ministry.

■ Protecting juvenile fish and spawning grounds in the national park

The delivery of sustainable fisheries in Mauritania must however start at an earlier point, which is why KfW also fosters nature conservation and resource protection measures in the unique coastal Banc d'Arguin National Park, a 12,000 square kilometre nature reserve. More than 2.5 million migratory birds overwinter here every year. UNESCO even declared the area a World Heritage Site. The national park's waters are spawning and nurs-

ery areas for millions of juvenile fish. They are a prerequisite to the regeneration of Mauritania's fish stocks and thus essential to the country's abundant fish resources.

In order to protect and maintain these stocks, motorised vessels are completely banned from passing through or fishing in inshore areas; only a limited number of the indigenous fishers' traditional pirogues are permitted. The surveillance systems co-financed by KfW as part of its financial cooperation also help to protect and maintain these fishing grounds.

Given that sustainable fisheries management requires the coming together of a number of different components – orderly licensing, control of the 200-mile zone, maintenance of spawning grounds – KfW also supports the national park in the development of its infrastructure. It currently finances to the sum of 10 million euros, for example, the construction of new national park administration offices on the reserve's margin and of monitoring stations and access tracks. A further 10 million euros have so far been placed in an endowment fund entitled "BACoMaB" (Banc d'Arguin and Coastal and Marine Biodiversity Fund Limited). The yields of the fund provide long-term financing for coastal protection – a further contribution to sustainability.

■ A suitable model for other coastal states

The measures adopted to monitor and protect the waters are proving effective: in Mauritania's coastal waters, illegal fishing, formerly rampant, is now largely halted. This safeguards the regeneration of fish populations, thus contributing vitally to the country's future. The situation in other regions of the world is, however, less reassuring.

According to the Food and Agriculture Organization of the United Nations (FAO), overfishing of the oceans has been increasing continuously in recent years and has reached worry-

Important "low-tech" elements of monitoring: a nautical chart and a device to measure meshes.

Photo: B.Schoen



ing proportions: Almost 30 per cent of global stocks are already overfished, while fish constitutes a key component and vital protein source in the diet of three billion people, or almost half of humankind. Moreover, more than 500 million people are economically dependent of fishing, either directly or indirectly. The significance of the fisheries sector simply cannot be overestimated. Therefore it is all the more important to have in place good mechanisms for monitoring fishing activities in conjunction with the long-term maintenance of fish stocks. Mauritania has understood that the sustainable use of fisheries resources is in the country's long-term interest. But this was a long process; it took a lot of convincing and with the help of successive infrastructure development it had to be shown that set objectives can indeed be met.

Mauritania is the only country at present where KfW is engaged in this field. But many other countries are faced with the challenge of implementing efficient fisheries surveillance. The experiences gained could easily be transferred to other regions, starting with the West African coastal countries to Mauritania's south (the resources of which are largely not in similarly good condition). However, while undoubtedly there is a need for similar projects to strengthen often existing but weak structures, there is only a limited degree of interest among governments and donors. The introduction of an effective fisheries surveillance requires a strong political will as well as transparent decision-making – good governance in short. It has to be kept in mind that such protection policies curtail short-term economic interests of some powerful players.

The project in Mauritania was successful, in particular due to the fact that it enabled the Mauritanian coast-guard to use modern technologies to curb illegal fishing and simultaneously protect the spawning grounds. This is crucial for the regeneration of fish populations and thus safeguards not only species protection but also the livelihoods of many thousands of people.

Eyes on the sea – Towards a more transparent fisheries sector

The Mauritians as a former nomadic people traditionally looked inland towards the desert; for a long time most Mauritians had no relationship with the ocean. They rarely ate or processed fish and for a long time failed to notice the potential of sustainable resource management on this front. This has changed over the past twenty years. Not only does fish feature ever more strongly in the diets of Mauritanian households (with a current annual per capita consumption of 6 kg), but public and private sector engagement has also very much increased in this area. The fisheries sector currently contributes approximately 15 per cent of direct government revenue and is thus, together with iron ore, the Mauritanian government's main source of revenue. In contrast to the mineral resources it also creates a large number of jobs.

Since 2005, Mauritania has participated in the Extractive Industries Transparency Initiative (EITI) process. EITI was founded in 2003 with the objective to increase transparency over state revenues from extractives companies with a view to fighting corruption in countries rich in raw materials worldwide. Since 2012, Mauritania has been counted amongst the 31 EITI "compliant countries" – a major success for this nation.

A separate standard for fish resources

Lately the Mauritanian EITI Committee has also considered inclusion of fisheries, following the lead of other countries which have integrated renewable resources, and forestry in particular, into the EITI process. At the same time the discussion on sustainable and economic management of fish resources gained traction in the country and led to a paradigm change as well as reform efforts in Mauritania's official fisheries policy. At the initiative of the EITI Secretariat, the year 2012 saw the first meeting of more than sixty private sector and civil society stakeholders as well as representatives of relevant ministries who discussed increased transparency in the fisheries sector. In January 2015 the Mauritanian

President Abdel Aziz, the then Chairman of the African Union, expressed his ambition to establish such a transparency initiative for his country.

In response, the Mauritanian government, together with the Humboldt-Viadrina Governance Platform, a non-profit organisation based in Berlin/Germany, established a separate Fisheries Transparency Initiative (FiTI). In terms of its working process the FiTI takes its orientation from the EITI initiative. It is planned that from 2016 onwards national multi-stakeholder groups will begin FiTI implementation, starting with initial pilot countries including Mauritania.

The World Bank has simultaneously been working on an international fisheries transparency initiative. In Mauritania this initiative supports transparency in the fisheries sector under its "West Africa Regional Fisheries Program" which was adopted in March 2015. The initiative includes components addressing good governance and sustainable management of fisheries. Moreover, the European Union supports steps towards greater transparency as part of their fisheries agreement with Mauritania. Potential synergies between the various efforts towards transparency are currently being explored.

The difficult path towards implementation

The measures show that the Mauritians are no longer solely focussing on their terrestrial resources but are turning the spotlight on activities in the fisheries sector. However, the declarations and initiatives of recent months must now be translated into concrete action. Judging from experience, in the fisheries sector this is bound to be a long and arduous process.

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