

Sustainable governance of the oceans

Crucial link to gender equality and food security.

Policy advice.

Case study Madagascar.

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Introduction

Life on Earth began in the oceans and life will always depend on them. They cover two thirds of the planet's surface and they contain 99 percent of the living space on the planet. Every second breath we take comes from oxygen produced by the oceans.

Human activities on the oceans' life support systems have reached unsustainable levels. Today the oceans face threats of overexploitation, pollution, declining biodiversity, climate change and acidification. These threats affect not only the ocean's themselves but also mankind and the entire planet.

Approx 3 billion people rely on fish as their main source of protein and millions of people depend on the oceans for livelihood. Small-scale fisheries provide work to 90 percent of the people employed in capture fisheries. Fish continues to be one of the most-traded food commodities worldwide. More than half of fish exports by value originate from developing countries.

Women are essential contributors to the seafood industry, representing over half of the workforce. They are often key actors in processing, local sale and different support roles in fisheries. Their work is essential for the local economy, employment and food security. Yet, these jobs are less recognised and less paid – in some cases even unpaid. An Food and Agricultural Organization study from 2015 shows that women are severely underrepresented in decision-making levels of seafood industries and have very little access to credit and financial resources allowing developing their industry.

The state of the world's marine fish stocks has not improved. More than 31percent of fish stocks are fished at biologically unsustainable levels. Continued overfishing is a serious threat to entire marine ecosystems but also to jobs and income.

Marine resources are a public good. Yet more and more fishing opportunities are being transformed into private transferable fishing-rights that are bought by industrial fishing companies or non-fish-related businesses. Local coastal communities get squeezed out and many fishermen lose their livelihood, just look at the latest development in a country like Ghana where a special form of corporate fishing vessels are fishing the resource and then selling it back to the local population for the double price.

In short, we particularly need to highlight the challenges facing the world's poorest and most vulnerable countries, regions and populations. This applies especially to the least developed countries and small island developing states.

The impacts of climate change

Climate change is a fundamental threat to global food security, sustainable development and poverty eradication. Ocean acidification caused by increasing levels of carbon dioxide has huge negative impacts on many marine organisms. It reduces the ability of shellfish to produce their shells and corals to form skeletons. Many of these organisms are the basis of the whole food chain.

The warming of the oceans will create new fish migration patterns, making today's winners tomorrow's losers and vice versa. Extreme and unpredictable weather with heavy storms and rainfall can damage coastal ecosystems. Rising sea levels will cover wetlands and other low-lying habitats where fish reproduce, and destroy mangroves, the nurseries for many commercially important fish species.

At the same time humans are affected by climate change. Most vulnerable are people in developing countries. When arable land is decreasing and droughts hit the inlands, many seek new livelihoods as fishermen in coastal areas and increase the pressure on marine resources.

A Blue Economy must be sustainable

A rapidly growing world population and dwindling resources on land has turned many eyes towards the oceans as saviour in the absence of a planet "B". Blue economy has become the new concept to meet increasing needs. But oceans only have the potential

to fulfil this wish if they are restored and maintained to healthy and productive state. Blue economy must become blue sustainable economy.

Poor countries must protect their natural resources. The most important policy decision is to and over-fishing. There are a number of important policy steps in order to govern fisheries in a more sustainable way. One way to protect important spawning grounds for fish is to increase the proportion of protected marine areas. Destructive fishing methods such as explosives or dynamite should be banned. Bottom trawling should be carefully regulated and banned in sensitive habitats.

The world's oceans are our common heritage that we have a responsibility to conserve and hand over to the next generation. We actually have the knowledge, the technology and the resources to save our oceans.

One way of factoring in climate change in fishing is to reduce the ocean stressors when determining fishing yield (Maximum sustainable yield- MSY). There is a lot of uncertainty in scientific assessments, especially in poorer coastal states' waters. Global warming, acidification, micro-plastics and invasive species are only some of the new challenges that can change the base of the food web, the health and migration patterns for different fish stocks which will have huge implications for fisheries. Ocean acidification impacts shell fish, new diseases and parasites can be the result of global warming and invasive species that destroy others. Many things can influence the harvesting possibilities and could therefore be factored in when determining MSY. This would be a way of ensuring a larger precautionary approach when setting total allowable catch and quotas. As for today, we're having the discussions on climate change and how it affects fish-stocks' health, migration patterns, behaviour and so on. But this is an area which needs further development. It's often "forgotten" or down-played in the discussions. But this will be the major challenge to tackle for the future. Already today fish stocks are changing their migration patterns, but the knowledge why fish behave like this is very low, at least in political discussions, although we could guess what the reasons are, we need much more reliable research .

A tax on fish catches sets the incentives to reduce fishing effort to more efficient levels to sustain the productivity of fish populations. Properly applied they can increase the private costs of actions that harm the marine environment – such as over-exploitation of marine resources and marine pollution.

Consumer preferences are very much the result in the wealthy world of heavy marketing campaigns and what is actually on the shelves in the shops. Demand has grown a lot for ecological food in the last years, and the public is more and more aware about how the food they eat have been produced and if it's sustainably sourced. I am convinced that many people would be inclined to change their habits if only they were aware about the future challenges to feed a growing world population.

Certification of fish according to how sustainable the stocks are could be a way for fisheries in the global south to increase their sustainability, as long as the standard is based on legitimate criteria that can be verified by a third party. Certification standards can play an important role, particularly in rewarding sustainable fishing practices.

The Marine Stewardship Council is one of the more sophisticated and trustworthy certification schemes, with various criteria's, that contributes to better transparency, whereas for example the label *Dolphin Safe* is not as encompassing, and only focus on aspects of tuna fishing related to dolphins. However, *MSC* has also undergone criticism for not strengthening it's criteria enough over time.

It is important that any sustainable fishing for tuna takes on a holistic approach, where impacts on all part of the ecosystems as well as management of fishing capacity is taken into account.

Increased traceability of the origins of fish products is getting increasingly important, to conquer food fraud, overfishing and enhance decent work in the fisheries sector.

Non-toxic and plastic-free fish. One truck-load of plastic enters our Ocean every single minute. Microplastics, plastic packaging and single use plastic all end up in our Oceans and we should vigorously mobilise and legislate against this.

The Madagascar fishing deal, a case study.

A "blue economy" deal was allegedly signed in Beijing in 2018 which would have seen investment of US\$2.7 billion into the fishing sector in Madagascar. Madagascar is one of the world's poorest nations, with 75% of the population living on less than US\$1.90 a day. Madagascar's GDP in 2017 was only US\$11.5 billion, making a US\$2.7 billion investment hugely important.

According to a 2011 academic paper, 4.7 million tonnes of fish was caught in Madagascar's waters between 1950 and 2008 – twice as much as reported in government figures. The scale of illegal, unreported and unregulated fishing causes huge economic damage. At the same time, more people were moving from the highlands of central Madagascar to the coasts in order to make a living, swelling the ranks of the fishermen. When fish started to become scarce in the south, they moved to the north.

Madagascar's fishing sector is vulnerable: oversight is weak, infrastructure is lacking and fisheries are used unsustainably. Huge overseas investments were just another cause for concern about future sustainability. In 2017, six Chinese fishing vessels were granted permits to catch fish and crab off the south of the island, causing panic among local fishermen who claimed the Chinese boats used inappropriate fishing gear. Those permits ran out at the end of 2018, and in early 2019 the fisheries ministry announced the boats would no longer be permitted to work, and their fishing gear was confiscated.

The US\$2.7 billion fishing deal was a major topic of conversation in Madagascar the summer of 2019. A letter opposing the deal posted online soon gathered 20,000 signatures. Even taxi drivers in the capital Antananarivo would complain about the hundreds of Chinese fishing boats that would be arriving.

Joelison Razakarivony remembers thinking that “this Chinese company can't know much about Madagascar.”

“If they'd sent someone to Madagascar, or read our constitution, they'd have known the president there at the signing was due to resign two days later, meaning huge political risk for the deal. And if they'd sent someone to check out the AMDP [Madagascan Agency for Economic Development and Business Promotion] they'd have realised it isn't a government body, and a deal it signed wouldn't necessarily have government support.” And it's true, before that signing ceremony few had heard of the AMDP. And if you try and figure out its origins, things get interesting.

The AMDP, despite the “agency” in its title, is nothing to do with the government. In 2016, the Forum Francophone des Affaires (FFA), which encourages cooperation between French-speaking nations, held a summit in Madagascar. The AMDP was a

private association set up in partnership with the FFA, registered under the FFA's Paris address. The AMDP had close links to Rajaonarimampianina, the president at the time the fishing deal was signed. AMDP head Hugues Ratsiferana was a special advisor to the president, and the president's nephew had a seat on the AMDP's board.

According to a source of the Madagascan Investigative Journalist's Alliance, the original AMDP had disbanded in August 2017, and the AMDP which signed the deal in Beijing only officially registered in Madagascar on 19 September 2018 – two weeks after the signing.

By which point, the president was no longer the president: he resigned on 7 September, the same day news of the deal broke, in order to contest the presidential elections due that November.

Seeing the controversy over the deal, the former president soon realised his association with it would do him no favours. A month later, on 4 October, he decided to forget what had happened in Beijing, saying in an interview with Radio France Internationale: "I have no knowledge of the deal."