

In March 2021, the streaming service Netflix released the documentary film "Seaspiracy" about the ecological impact of global fisheries. The considerable demand, the social media buzz and support among celebrities soon catapulted the documentary into the Top 10 in several countries. All of a sudden, a topic generally given little attention was in the limelight of an international audience. At the same time, the documentary film attracted strong criticism by fisheries and food

experts who were particularly sceptical of its Western bias. Notwithstanding the justified criticism of overexploitation of the oceans, local fishing communities had not been given a voice, while the role of the oceans in maintaining livelihoods, particularly in developing and middle-income countries, received too little focus.

The documentary film and the public response it generated points to a field of ten-

sions which have intensified over the past decades. These include tensions between industrial and small-scale fisheries, between high- and middle-income countries operating fishing fleets, and between developing countries with traditionally rich but increasingly overfished stocks and societies that depend on seafood. These represent transregional power relations and are neglected in development policy and international cooperation.

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Resource depletion and competition

Fisheries and aquaculture production are the main source of income of ten to twelve per cent of the world population. In 2018, almost 3.3 billion people, most of them living in Africa and Asia, relied on fish for around 20 per cent of their average per capita intake of animal protein (also see article on pages 10–11). Competition between small-scale, coastal and industrial fisheries, which has been growing

for decades, is resulting in substantial processes of impoverishment in labour-intensive smallscale fisheries, in overfishing and in ecological overexploitation by industrial fishing fleets.

The lack of technical and financial resources needed to build up modern fishing fleets and thus benefit from what used to be rich fish stocks has, for example, caused many West African governments to enter into fisheries partnerships both with European Union countries, as well as with Asian fishing nations such as Japan, South Korea and, to an increasing extent, China. In this setting, European and Asian fishing fleets are vying for the declining fisheries resources of West Africa (also see article on pages 28–30). Government subsidies, which account for up to 20-40 per cent of the catch value, represent further incentives to expand these distant water fleets.

Too highly set catch quota, a lack of government capacities, or the unwillingness of local governments to assess the viability of the fish stocks in their exclusive economic zone (EEZ) and control their sustainable use all contribute to considerable overfishing. As a result, in parts of Africa, regional production and supply chains are being continuously weakened, if not collapsing.

Similar trends can be observed in parts of Latin America and South (East) Asia. Last year, lockdown measures in response to the Covid-19 pandemic contributed to worsening this situation, as we observe in a study prepared with colleagues of Germany's Leibniz Centre for Tropical Marine Research. Restricted market access accompanied by price hikes for petrol and fish processing inputs further reduced the gains from production.

The social impacts of impoverishment processes in small-scale and coastal fishing, including local fish processing industries and regional supply chains, vary according to gender, age groups and ethnicity. Owing to a lack of formal education, those affected are rarely able to find alternative employment on the labour market. The fish processing industry and fish marketing in particularly provide income opportunities for women in many parts of West Africa and Asia. These women are increasingly under threat from the impoverishment processes in the sector. The impacts of the Covid-19 pandemic are also further exacerbating these tendencies.

As a coping strategy, fishers stay out at sea for longer periods, adapt their catching methods to the availability of resources, or resort to il-

legal catching practices. Others diversify their strategies to secure income for their families (including seasonal migration) or leave the sector altogether and move to the services sector, which frequently has only a limited uptake capacity, to work as taxi drivers, kiosk vendors and the like. Thus, illegal, unreported and unregulated (IUU) fishing activities, clearly also including small-scale fisheries, continue to represent a growing major problem, despite international efforts to contain these.

A huge Saiko trade sector

In the West African context, alongside IUU fishing, transfer of fish at sea (referred to as Saiko trade) represents a key challenge. Saiko trade further undermines the local labour markets and efforts to curb overfishing. Over the last ten years, along Ghana's central coast and emanating in particular from the fishing port of Elmina, a thriving offshore trade has developed e.g. between Chinese-owned yet Ghanaian-flagged trawler crews and the local population, centring on the commercially non-lucrative by-catch of small and young fish. Instead of throwing the by-catch overboard, it is frozen in blocks and sold to small-scale fishers at night.

The frozen fish is then sold on, sometimes far inland, and causes a corresponding drop in prices for the legally fished, unfrozen catch. Estimates of the Environmental Justice Foundation put the amount of by-catch landed in this manner at approx. 80,000 tons per year, which is several times higher than the official catch of the Chinese fishing fleet in Ghanaian waters.

At the same time, aquaculture production has been growing rapidly for years. The UN Food and Agriculture Organization (FAO) reports a 528 per cent increase from 1990 to 2018. One much-used input for aquaculture is fishmeal, which is made from fresh fish including by-catch. In addition to being a key input for aquaculture, fishmeal plays a role in poultry production and, alongside regionally varying and changing patterns of consumption, is partly responsible for the widening of the range of species fished (also see article on pages 31–34).

However, a look at factories producing fishmeal e.g. in Mauritania (field research Hornidge 2018) quickly explains the limited impact of carefully negotiated catch quota relating to volume and species as a steering instrument. Rather, government implementation bodies and local political willingness

determine to what extent juvenile fish, for example, are protected via checks and sanctions, or whether industrial trawlers are using opaque plastic pipes to pump all kinds of fish and seafood directly into the fishmeal factories (also see article on pages 16–17).

Transregionally defined legal spheres

Recognising the world's oceans and their resources as a global commons represents a longheld desire of humankind. In the aftermath of the Second World War, the international community laid the foundations for the United Nations Convention on the Law of the Sea (UNCLOS), adopted in 1982, and the principle of the 'common heritage of humankind' as enshrined in International Law. However, in the negotiation rounds which had already started in 1967, its advocates, Maltese Ambassador to the UN Arvid Pardo and Elisabeth Mann-Borgese, only managed to anchor this principle for the seabed and its mineral resources beyond national borders ("the Area").

Up to this day, it has not been extended to biological resources in the water column. Instead, fisheries management in coastal waters (up to twelve nautical miles off the coast) and within the exclusive economic zone of a coastal state (EEZ; 200 nm, extendable to up to 350 nm off the coast) remains subject to national legislation. In the high seas, beyond the EEZ, the principle of 'the freedom of the seas' applies to shipping, fisheries and research. In fisheries, its precise provisions are determined by Regional Fisheries Management Organisa-

tions (RFMOs) focusing on certain regional fishing grounds and migratory fish species.

De facto, implementing and realising a sustainable management depends on available shipping infrastructure, institutional capacities and political determination, the results of which are reflected in transregional negotiations and agreements. For example, in Goal 14 ("Life below water"), Agenda 2030 stresses the need to combat illegal, unreported and unregulated fishing and establish protected zones. Important steps in this effort comprise the FAO Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (since 2014) or the UN Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (since 2016). The FAO nevertheless estimates that illegal catches continue to represent around 20 per cent of global fisheries. One concrete example of the urgency to combine fisheries policy with development cooperation objectives in the interest of transformative sustainable structural policy is the cooperation between the EU and Germany with Mauritania (see Box).

What development cooperation needs to address

The oceans are a global common which acts as a global climate regulator, a biodiversity hub and a key source of protein for human nourishment. They bind carbon in large amounts and produce around half the total amount of atmospheric oxygen. At the same time, they are increasingly suffering from wastewater being fed into the sea from land. Eutrophication and acidification are going hand in hand with global warming. Growing competition between industrial fishing fleets coming almost exclusively from industrialised and middle-income countries and small-scale and coastal fisheries of numerous developing countries are leading to further overexploitation of fish stocks already under pressure from global warming in the tropics and subtropics.

Collapsing labour markets in small-scale and coastal fisheries, in processing industries and in regional trade networks which have traditionally provided employment for men and women with low levels of formal education prospects have increased incentives to engage in IUU, illegal fishing practices, poverty-driven piracy and trade outside legal sailing routes. Their illegality contributes to further eroding already weak institutional capacities whilst encouraging corruption and exacerbating inequality.

These are all challenges affecting sustainable development. However, they continue to fall between the areas of responsibility and interests of different policy areas, predominantly environment, food and agriculture, industry and commerce, development, security and defence, and between levels of governance e.g. from Germany and the EU up to the multilateral level of the FAO and the RFMOs, or the responsibilities for coastal and high seas.

International cooperation and development policy ought to explicitly address the challenges in the fisheries sector. Owing to its natural



dependence on a cross-border body of water, this economic sector is predestined for combining environmental protection with job creation, poverty alleviation, the development of institutional capacities and good governance structures as well as ambitious regional cooperation.

We regard the following fields of action and concrete steps as crucial for better positioning fisheries in development cooperation and international cooperation to address today's challenges:

- 1. Eliminate subsidies for industrial fisheries. The Organisation for Economic Co-operation and Development (OECD) puts the share of Official Development Assistance (ODA) provided for the sustainable development of the Blue Economy from 2013 to 2018 at an average of 2.9 billion US dollars per year (1.6 per cent of total ODA). This contrasts with the 35.4 billion USD globally spent in 2018 on fishery subsidies, with the predictable failure to combat overfishing.
- 2. A ban on all high-sea fishing activities. In the future, fishing ought to be restricted to coastal seas within the exclusive economic zones. In addition to protecting the ecosystems of the high seas, this would boost the position of small-scale fisheries vis-à-vis industrial fisheries in competition for fish stocks in developing countries.
- Institutional strengthening and capacity development of regional fish-

The EU's fisheries agreement with Mauritania

The fish stocks in the upwelling area off the coast of Mauritania are this country's most important natural resource. The European Union's Fisheries Partnership Agreement of 2015 (valid up to the 15th November 2021 based on two extensions) is the EU's most extensive fisheries agreement in financial terms, amounting to an annual total of 61.625 million euros. Out of this sum, 57.5 million euros is to be spent on access to Mauritania's waters, boosting the government budget of this country with 4.2 million inhabitants. Only the remaining 4.125 million euros has been explicitly earmarked for programmes supporting the field of small-scale fisheries, such as strengthening fisheries cooperatives, processing industries and training programmes. While the money spent since 2015 has strengthened an autocratic system continuing to be characterised by slavery (NGOs put the share of the population in slavery at 2.4 per cent), the government formed under President Mohamed Ould Ghazouani in August 2019 gives rise to cautious optimism regarding a step-by-step strengthening of the rule of law.

eries management. Targeted support should be provided to regional collaborative schemes and agreements on sustainable fisheries management in combination with good governance and rule of law principles via the Regional Fisheries Management Organisations.

- 4. **Special support for small-scale and coastal fisheries** in developing and middle-income countries with access to traditionally rich fishing grounds and in alignment with the FAO Small-scale Fisheries Guidelines.
- 5. Targeted development of local fish-processing industries and (trans-) regional marketing, including gender-sensitive job creation measures, social and environmental standards, capacity development and training.
- Promoting cross-sector cooperation and coordination in ocean-based branches of the economy. Securing sustainability standards (ecological, so-

cial, economic, cultural) in the further development of the 'Blue Economy' with targeted support for integrated approaches (such as the African Union's Integrated Maritime Strategy).

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