



ISSUE PAPER

The Covid-19 Pandemic and the Fisheries Sector in Africa (March to May 2020)

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Acronyms

MPA	Marine Protected Area
CITES	The Convention on International Trade in Endangered Species of Wild Fauna and Flora
FAO	Food and Agriculture Organization of the United Nations
FITI	Fisheries Transparency Initiative
IUU	Illegal, Unreported and Unregulated Fishing
SME	Small- and medium-sized enterprises
EU	European Union
EEZ	Exclusive Economic Zone



Context and Approach

The COVID-19 pandemic is undoubtedly the most significant public health episode to have affected human beings, societies and minds throughout the world and Africa. All governments have adopted public health measures, in particular lockdown and other exceptional measures in the context of the state of health emergency, to contain the spread of the virus. The sudden drop in human activity has impacted the environment, as well as the use and exploitation of natural resources, in particular, fisheries.



This note focuses on the situation observed in four countries (Morocco, Mauritania, Senegal and Seychelles) which are highly dependent on the fisheries sector in one form or another, although information on other countries may also be taken into consideration by way of comparison.

Fishing in Senegal is mainly artisanal and generates a large number of direct and indirect jobs, chiefly in

the informal sector (over 5 percent of the labour force), while greatly contributing to the whole population's food security. In Seychelles, fishing is entirely export and tourism market-oriented, generating a large number of jobs (over 5 percent of the labour force) and contributing over 25 percent of the GDP. In Morocco, fishing generates many jobs and is one of the main export sectors. In Mauritania, fishing is primarily a source of revenue by the volume of its exports and by revenue from fisheries agreements and fishing quotas.

Of note is the fact that in the three countries selected in the North, (Morocco) and West, (Mauritania and Senegal) of Africa, almost 3.3 million tonnes are caught annually, i.e. 30 percent of all marine fisheries catches in the African continent.

The aim of this note is to analyse the direct and indirect impacts of the COVID-19 pandemic on the entire fisheries sector, from fish catching operations to the value and marketing chains, with special focus on governance issues and problems relating to gender and informal sector actors.

On the basis of this diagnosis, whose span and scope are inevitably limited in time and space, this note aims to identify a number of good practices. Finally, recommendations are made in a twofold perspective of a similar crisis and post-crisis restructuring. Where necessary, these recommendations will consider simplified scenarios to ensure their medium and long-term operationalisation.

Constraints on Fisheries Production and Capacity

Industrial Fisheries

Industrial fisheries were the first to be impacted by the announcement of the pandemic, because of on-board working conditions and, in certain cases, the international composition of crews.

In Morocco, the pandemic began in March 2020, coinciding with the end of the octopus-fishing season by the offshore fleet. This type of fishing involves about 200 vessels each carrying crews of 35 sailors spending 45 to 60 days at sea. The safe return of these estimated 6,000 sailors necessarily uninfected after two months at sea raised fears of their possible contagion of the virus. Therefore, the health and maritime authorities arranged to stagger the return of these vessels to cater care for each crew with the greatest precaution. Buses were chartered by ship-owners to take every sailor home throughout the country. The decision was taken to limit crews to 15 people and only authorise fishing by partial fleets in the ensuing months.

In Seychelles, most tuna landings comprise of European Union (EU) fleets of purse seiners whose crews are in part composed of sailors from Côte d'Ivoire and Madagascar. The Seychelles authorities decided to open Victoria airport to charter flights and were able to make a first round-trip for almost 300 sailors aboard Spanish vessels. Plans for an air link

with Abidjan to repatriate Ivorian sailors working on French ships were also made. These arrangements are considered to be complex and were not without risks at a time when the Seychelles no longer had any new cases of COVID-19 infection as of the date of this report. In addition, it is contrary to international labour law to maintain crew members on-board for uninterrupted periods of over several months.

In Mauritania starting from 18 March, the government prohibited all ships operating in the country's waters from docking. This ban applied to cargo and fishing vessels. This measure was followed by a slowdown in trade for a few weeks and resulted in the departure of some foreign fishing vessels (EU and Russia) from the Mauritanian Exclusive Economic Zone (EEZ), resulting in a significant drop in landings, especially of small pelagic fish in Nouadhibou. However, this drop was rapidly offset by an increase in the activities of other fleets, in particular Chinese and Turkish fleets. In early May, a Russian crew change was carried out with great precaution to prevent the departure of the other ships from this fleet.

Small-scale Fisheries

In Mauritania, the biological recovery period for octopus fishing which normally starts on 1 May, was postponed until 15 May. This postponement followed a request by economic operators, since the majority of fishermen (over 40,000 artisanal fishermen concerned) were citizens of towns in the country's



interior and could only return home if they landed in Nouadhibou. However, because of the entry of pirogues (traditional fishing boats) from Senegal into Mauritanian territorial waters without authorisation to fish under the bilateral agreement signed in early March 2020 (400 boats) or a charter contract, the Mauritanian authorities established a system to control all boats operating in their waters. This extremely restrictive measure was criticised by organisations of professionals which began a strike on 7 May seeking to obtain the relaxation of the measure. In the following days, fish shortages began to be reported at several landing sites in the South of the country and in Nouakchott.

In Seychelles, the small-scale fisheries

sector employs around 1,500 people. Apart from supplying local markets, fisheries production is mainly focused on the tourism market. Hence, it was initially severely impacted by the closure of hotels and restaurants, and especially by the suspension of all flights.

In Senegal, the imposition of nationwide social distancing measures had severe consequences for artisanal fisheries. For instance, restrictions on the wharf operating hours (a few hours a day, and sometimes only every other day) led to the concentration of activities during the hottest hours of the day that are not usually suitable for landing catches and first-sale. Furthermore, the number of crew members on board large seiner

boats (up to 40 people) could not be reduced. This led to the desertions by some crews and a general downturn in economic activity. Another aggravating factor resulted from the closure of maritime borders, which especially concerns fishermen in the south of Senegal who usually fish in Guinea and Guinea-Bissau. This measure forced them to remain in these countries without any possibility of docking in Senegal. Consequently, catch landings have sharply dropped since the end of March 2020, whereas overall demand in Dakar and the main towns remains identical to the pre-crisis level.

In Morocco, social distancing measures also affected the crews of artisanal and coastal fleets, with consequences (from March) on the volume of sardines caught especially at Agadir Port which reported a 90 percent reduction in quantities landed.

Processing and Supply Chain Challenges

Landing and Transportation Restrictions

In addition to measures limiting the number of vessels leaving port, some countries had restricted access to wharfs and artisanal fishing beaches. Thus, in Senegal, a prefectural decision closing the wharfs in Mbour (the country's second port with over 4,000 boats) every other day to carry out disinfection operations was

issued. This measure resulted in a significant loss of earnings for many fishermen and women fish processors. Following a few weeks of negotiation, the measure was not renewed.

In Morocco, social distancing measures also affected the crews of artisanal and coastal fleets.

However, in general, restrictions on movements between regions and the major towns in the countries did not affect goods. Similarly, land and sea borders were swiftly re-opened to goods, especially food products. Subsequently, following Mauritania's decision on 15 March 2020 to close its borders which led to a drop in artisanal fishing activities, things rapidly returned to normal especially in Nouakchott Port - the main departure point for supply routes towards the country's interior, Mali and Senegal. This controlled opening of borders helped to prevent a significant decrease in the availability of small pelagic fish nationally and in neighbouring countries that are highly dependent on imported products to ensure their food security.

In Morocco, starting early March, the Ministry of Fisheries encouraged the regular supply of consumer markets with fresh fish, including the activities of small itinerant fish vendors. However, auctions were closed

and sales made directly between fishermen and wholesale fishmongers in compliance with social distancing measures. Excluding Casablanca, the wholesale markets were also closed to stem the risks of spreading the disease.

Since the market for fresh fish in Seychelles is small, tourism offers the main outlet for artisanal fisheries. The suspension of flights and the closure of hotels and restaurants wiped out this highly lucrative outlet for the country's 1,500 artisanal fishermen. The Seychelles authorities rapidly established a programme to allow artisanal fishermen to fish and sell their products at prices that will guarantee them a decent income. Among other measures, this programme includes subsidies on inputs (fuel, ice, bait) and the negotiated purchase of catches by small and medium-sized enterprises (SME) specialised in processing and storage. For both fishermen and processors, the main condition for benefiting from these measures is to be an official member of the Seychelles Fishing Authority. This allows the Government not to have to pay a subsistence allowance to informal sector fishermen.

In Morocco, restaurant closures and the interruption of tourism also had a significant impact on demand for high quality fresh products, blocking an essential outlet for several tens of thousands of small coastal fishermen, particularly in tourism-oriented regions with few alternative activities.

Supplies for Traditional Processing Sub-sectors

In Senegal, a high proportion of artisanal fisheries production is intended for traditional processing sub-sectors, particularly drying and smoking. The reduction in the number



of fishing trips has affected women fish vendors and processors who are encountering difficulties in buying sufficient quantities of products. For most women fish wholesalers (sales averaging 200,000 tonnes of fresh products per year, of which 40 percent is in Dakar), the restrictions imposed on transportation between the country's regions have also had negative impacts since it is no longer possible to travel at night

or reach urban markets during the curfew periods. The same problem has affected women processors who export dried products (about 42,000 tonnes per year) to Burkina Faso and Mali. Fish hauliers are often unable to cross borders and are at times blocked without being able to return to Senegal

to pay the women the proceeds from the sale of their products. Many women have run out of funds that would allow them to resume normal activities following the crisis. Moreover, women who have agreed to store their processed products could suffer significant losses if the crisis extends beyond three months, since storage conditions are unsuitable for such long periods.

Supply of Industrial Processing Sub-sectors

The production of canned sardines and anchovies in Morocco mainly depends on supply contracts with EU importers. These contracts, with support from the authorities, have helped operators to maintain normal production levels especially by relying on artisanal fisheries, which are less affected by restrictions than industrial fishing.

In Seychelles, the main cannery is the Indian Ocean Tuna (IOT) company, one of the world's largest, which is partly owned by Thai Union Europe. Indian Ocean Tuna processes about 80,000 tonnes of tuna and produces 300 million cans a year. Supply is mainly dependent on European tuna seiners operating in the Seychelles EEZ and other countries of the Indian Ocean Tuna Commission. Catch landings continued throughout the closed border period, since product handling is fully automated and does not require any interaction between crews and operators at Victoria Port. In Seychelles, canning by-products are mainly re-used for high quality fish oil production for the pharmaceutical industry.

In Mauritania, small pelagic fish catches are landed by industrial (European, Russian and Turkish) and artisanal Mauritanian and Senegalese fleets. Products are re-exported to Europe and Africa or processed into fishmeal. Foreign vessels experienced difficulties in landing catches, with

the exception of Turkish trawlers which have no on-board conservation facilities and all their catches are usually processed into fishmeal. Consequently, fishmeal production dropped slightly by 10 percent compared to the same period in 2019, while exports to China increased by almost 50 percent, which partly explains Mauritania's projected economic recovery, including an upswing in the poultry and fish-farming sub-sectors.

Regional and International Export Sub-Sectors

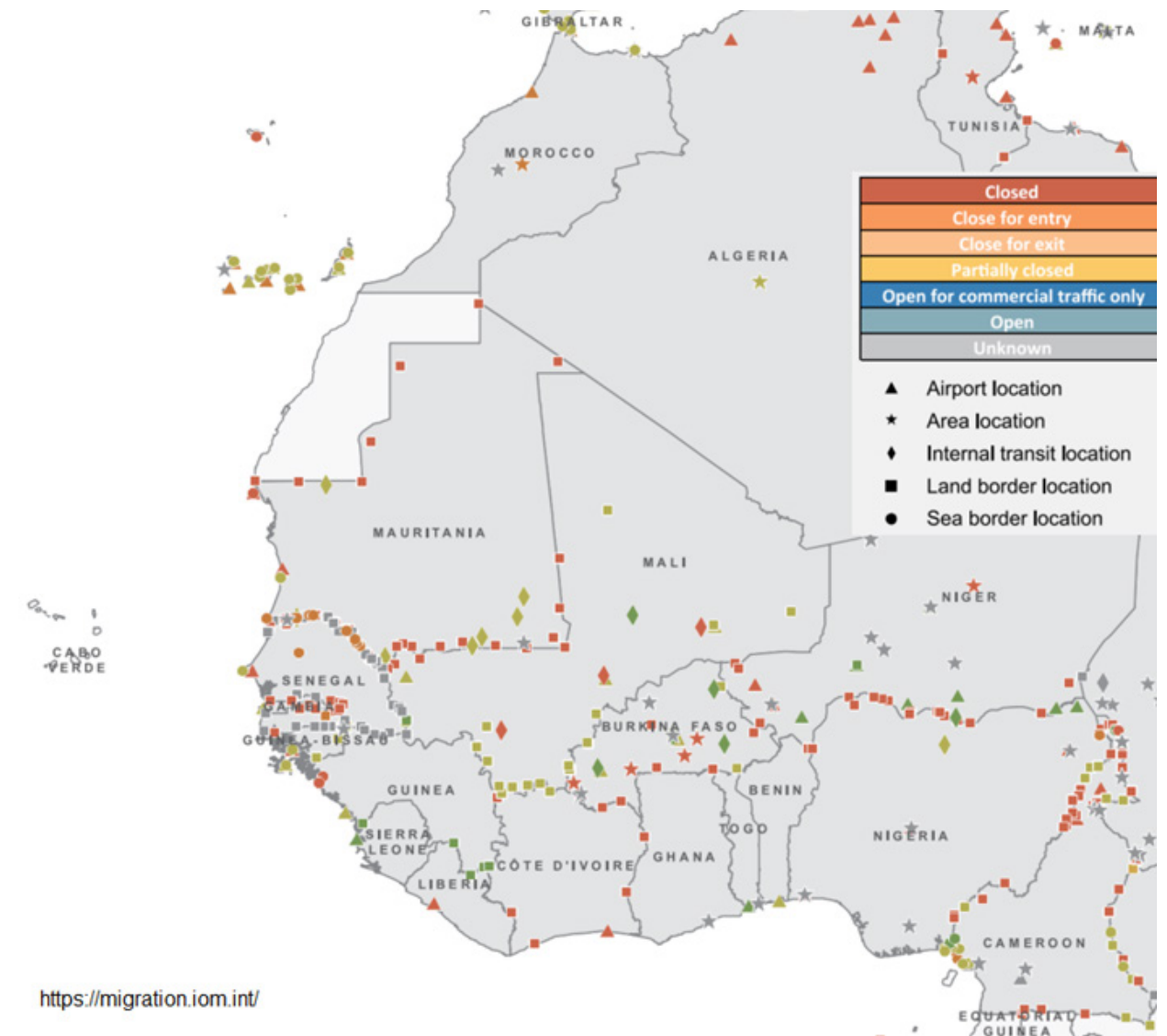
The export sector is undoubtedly the hardest hit by the crisis, particularly with regard to high value products intended for markets outside Africa. In the case of canned products (small pelagic fish in Morocco and tuna in Seychelles) the shortfall was minimal since demand remained sufficiently strong for these products (with no risks to health), and because storage costs would wipe out the fairly low margins in these industries.

In contrast, all high value frozen and fresh products (particularly octopus and white fish) for export to EU and Asia were left with no outlets for several weeks, either because of the suspension of imports to buyer countries, or because of the slowdown in maritime traffic (or the suspension of flights for high value fresh products). The loss of earnings will be rapidly offset if exports resume normally within one to two months. However, should restrictions continue in importing countries, storage capacity will be quickly saturated,

compelling producer countries to limit catches and seek other outlets.

The same applies to fishmeal, especially low quality fishmeal produced in Mauritania for export to China. The suspension of imports from China for only a few weeks shows that the storage capacity for this type of product could be insufficient in the short-term. It is difficult to sell such a poorly competitive product (compared to the meal produced in Morocco and Peru) in other markets and the costs incurred by storage are not justifiable in the long term.

Lastly, it is worth noting the large quantities of small pelagic fish (frozen but also traditionally processed by drying and smoking) traded between West African countries. These flows play a key role in food security not only in Senegal and Mauritania but also in landlocked Sahelian countries (Burkina Faso, Mali, Niger) and countries with fishery product deficits (Côte d'Ivoire and Nigeria). Some exports appear to have been delayed because of the slowdown in maritime traffic, but road transport has also been affected by the closing of borders and the increased number of health controls. While impossible to quantify during this time span, this downturn in trade has also resulted in the loss of products (cold chain interruptions, inadequate conservation facilities for processed products). Map 1 clearly indicates the situation regarding border posts between West African countries as of 19 April 2020 according to the International Organization for Migration, even though it particularly reflects restrictions on the movement



Map 1. Status of entry and exit points by country/territory/zone because of travel restrictions (19 April 2020).

Source: Committee for the Coordination of Statistical Activities.

of people and not that of goods.

The Issue of Fishery Product Stocks

Against a backdrop of weak supply and demand, Mauritania has initiated an interesting approach to address possible food shortages. The Government has called upon the

private sector, including cold storage companies, to build up a stock of 10,000 tonnes of fish for marketing or distribution by public agencies in the event of a serious food shortage.

Such stocks of frozen products should be encouraged but require adequate facilities. The availability of cold rooms and freezers may be insufficient in

certain ports. In early April 2020, the Government of Côte d'Ivoire announced that it had sufficient food stocks for six-months, including 91,000 tonnes of frozen fish (entirely frozen tuna on-board EU tuna seiners. Frozen tuna is not directly consumable and must undergo a canning process as per Codex Alimentarius). A solution would be to rapidly can this tunas and store fish freshly caught by artisanal fishermen in the vacated cold rooms.

Some exports appear to have been delayed because of the slowdown in maritime traffic, but road transport has also been affected by the closing of borders and the increased number of health controls.

An even better measure in countries without such facilities would be to build up stocks of fish processed traditionally, preferably by drying and salting. Small pelagic fish processed in this manner have a storage life of several months without losing any of its nutritional value, and storage of such products does not require any source of energy: simply shaded and ventilated shed-type facilities suffice. Building up such reserves would provide work for many women. Lastly, the benefits appear greater in landlocked countries (Burkina Faso, Mali, and Niger) which tend to prefer this type of product to frozen fish.

Impacts on Businesses, Employment and Income

The Formal Sector

The industrial fisheries sector comprises a few dozen fishing companies, including foreign fleets (China, Russia, EU) employing few African sailors, if any. The voluntary suspension of the activities of certain segments of the fleet, especially in Morocco and Mauritania, has had a limited impact. Moreover, measures are envisaged to compensate for furlough periods when they do not coincide with resource recovery periods.

There are thousands of jobs in the processing industries, almost exclusively for women. The formal nature of these jobs does not prevent some uncertainty, especially when supply is seasonal and not offset by the import of raw materials. The activities of industrial units in Morocco were initially maintained under normal conditions. However, the health authorities quickly noted that large industrial units generated 90 percent of new cases of COVID-19 infections (especially within the anchovy cannery in Larache, which was considered a key pandemic cluster site in April) . As a result, in partnership with the health authorities, economic operators took radical measures to reduce the number of women working at the same time in these plants, to allow distancing in compliance with applicable regulations. This measure is extremely

difficult to enforce since the facilities and workstations were not designed to accommodate such an adaptation. Studies have been initiated to allow modifications to workspaces should the crisis last, or in the event of any future health crisis.

Very Small Enterprises and the Informal Sector

Unlike industrial fisheries, small-scale artisanal and coastal fisheries comprise a complex tapestry of formal enterprises (companies with dozens to hundreds of pirogues) and thousands of informal individual or family businesses. The informal sector predominates, particularly in Senegal where the downturn in activity is quite significant, with crew members forced to remain onshore. This has resulted in the loss of thousands of jobs. Another feature of the sector is the high mobility of fishermen living far from the fishing or landing sites or operating regularly in neighbouring countries, which makes it difficult to estimate the short-term impacts on employment and income. For fishing boat owners, the downturn also creates risks concerning the amortisation and maintenance of production tools (fishing boats and gear). However, these enterprises are often organised into associations or cooperatives, which can act as interlocutors with government services to obtain and distribute public aid to informal sector operators, where they exist and are available.

The small-scale product processing and marketing sector is even more informal. In Senegal, the income

of thousands of women has fallen sharply because of lack of landed fish, marketing and product storage challenges. In the absence of concrete measures targeting their sector of activity, some women have been compelled to turn to the solidarity funds of their associations to meet the basic needs of their families.

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Support Measures for Businesses and Employment

So far, countries have adopted very different measures to support businesses in the fishing sector. In Mauritania, the government will have all taxes applied to household heads working in the artisanal fisheries sector cover until the end of the year. The Government has also sought voluntary contributions from public institutions and fishing vessel owners to the National Social Solidarity Fund to raise resources to combat the coronavirus pandemic. The private sector will contribute in kind, stocking up 100,000 tonnes of frozen fish and making an additional 10,000 tonnes available to be distributed by Société Nationale de Distribution du Poisson (National Fish Distribution Company)



to households in difficulty nationwide. In Morocco, the government has undertaken to provide financial support to fishing vessel owners, artisanal fishermen, processing companies as well as informal sector actors.

In Senegal, measures concerning the sector have not yet been applied, but should help to offset the loss of income for families that are dependent on fishery activities through the payment of allowances or provision of food parcels as is the case in Côte d'Ivoire. In Seychelles, measure concerning the purchase of fish and input subsidies aim to allow fishermen and SMEs to continue production despite falling demand. The Government only envisages direct financial assistance for some particularly fragile actors.

The Macroeconomic Dimension

The Contribution of the Sector to GDP

The share of fisheries in the

calculation of GDP raises many methodological problems. The calculation method differs greatly depending on country and institution, and whether all the value chain segments are considered, or all forms of value added are integrated or not. Notwithstanding, based on several recent sources, especially European Commission reports, the contribution of fisheries to GDP ranges from 2 percent (Morocco and Senegal) and 4.5 percent (Mauritania). The figures for Seychelles (27 percent) is disproportionate.

Despite some downturn in certain segments of fishing activities, it is estimated that the sector will not contribute strongly to GDP contraction in the countries studied. However, the impact on export revenue will be far more severe.

Export Revenue

In Senegal where the share of fisheries products represents 16 percent of total exports in value terms, the loss of earnings could exceed EUR 100 million, even if exports were to revive by the beginning of the third quarter.

In Mauritania, Société Mauritanienne de Commercialisation du Poisson (the Mauritanian Fish Marketing Company - SMCP), which manages exports, recorded lost earnings equivalent to USD 17 million for March and April, mainly due to the suspension of octopus and white fish exports. Paradoxically, as a result of strong Chinese demand, exports of fish meal



(non-food product) would help to maintain a high revenue level.

In Seychelles, the loss of earnings will be significant for artisanal fisheries actors. However, at the national level, the share of exports of canned tuna will maintain the trade balance at its pre-crisis level.

In Morocco, the situation has not been quantitatively established although there has been a slight drop in the export of canned products. The downturn has been more pronounced for frozen and fresh product exports to the EU.

Impact on Consumer Prices

The crisis has disrupted the statistical indicator monitoring systems in many

countries, especially consumer price collection systems that often require a physical presence on the markets and direct consumption sites. Generally, the closure of restaurants and the suspension of tourism activities have led to a drop in demand and prices. Disparities exist depending on the products and other indirect impacts.

In Morocco, the fall in prices remains extremely low for everyday consumer products dominated by sardines. Demand also rose at the start of the month of Ramadan in mid-April, against a backdrop of controlled inflation for all food products.

In Mauritania, fish consumption remains secondary in the diet (barely 3 percent of proteins come from fish). However, the fact that products

usually intended for export are found in sufficient quantities on the local market has forced prices slightly downward.

In Seychelles, falling tourism demand has prompted the Government to take measures to lower the production cost borne by artisanal fishermen and maintain prices at a decent level, albeit below the pre-crisis level.

In Dakar, Senegal, the price of sardinella (the basic food for many households) reached over CFAF 300 per unit on some days, i.e. double the pre-crisis price. Therefore, this indicator reveals a drop in production and supply difficulties, and a worrying source of inflation since fish accounts for 10 percent of protein intake on average.

In other major fish importing countries, the situation varies considerably. In Cameroon, the suspension of tilapia imports from China created a shortage of fish and a sharp increase in prices. In Kenya, the same measure caused a shift in demand to local products and a significant improvement in the income of artisanal fishermen.

Impacts on Fishery Resources and their Environment

Limitations of Short-term Impacts

Between 1 January and 28 April 2020, Global Fishing Watch reported an

overall drop (compared to the same period in 2019) in the activities of ships equipped with the automatic identification system, i.e. vessels over 24 metres long: 50 percent in Southern Europe and 20 percent in China. However, the NGO points out that the suspension of fishing for the New Year is a tradition in China, and that resumption of fishing was very rapid after the lockdown period as was also the case in EU countries.

The COVID-19 pandemic has had a significant impact on employment, income and trade but what of the impact on fishery resources? The slowdown of fishing activities for several months is similar to a biological recovery period as has long existed, especially in West Africa. Generally, the aim of such recovery periods is to protect resources during a critical period of their life cycle, generally the reproduction period, to increase the recruitment of young fish. In some cases, there may be an economic reason for temporary closure of fishing where it is necessary to limit supply to certain value chains to maintain high prices. In any event, these periods are determined in consultation with economic operators to win their acceptance and ensure compliance with the measures.

Concerning this crisis, it is worth noting that the main phases of the biological recovery for demersal fishing (and especially octopus) traditionally start on 15 April in Morocco and on 1 May in Mauritania. This relative coincidence of dates suggests that the impacts will

be limited compared to a normal year, without any benefits for the resources other than a slight decline in fishing mortality during that period. However, it is well known that such impacts are offset by more intensive fishing upon resumption.

The positive impacts also differ significant depending on the resource characteristics: species with low resilience to fishing (because of their long life span, late maturity or low fertility) only benefit marginally from a short biological recovery period.

The positive impacts also differ significant depending on the resource characteristics: species with low resilience to fishing (because of their long life span, late maturity or low fertility) only benefit marginally from a short biological recovery period. For the more resilient species (because of their short life span or high fertility), the impact is extremely difficult to assess in advance because the recruitment processes primarily depend on interactions between environmental conditions and the resource situation (the case of small pelagic fish, cephalopods or shrimps) on the whole. A reduction in fishing pressure over a pre-determined period may benefit a fraction of the resources without any sustainable impact on post-crisis and medium-term fishing yields.

HISTORICAL IMPACTS OF CRISES – THE FIRST AND SECOND WORLD WARS

What happens when fishing is interrupted for a long period? The two world wars resulted in a significant reduction in fishing for several years in vast areas of the Atlantic and Pacific due to many factors (assignment of ships to combat and escort duties, blocking of ports, laying of naval mines, etc.). Such events lasted for a fairly long time to allow the true replenishment of fish stocks (overfishing at the time concerned cod, herring and sardines). However, the beneficial effects of the two global crises were rapidly offset by technological developments that were transposed to fishing vessels and made them extremely efficient (diesel engine propulsion, sonar, radar, etc.).

Impacts on the Ecosystem

Like fish resources, marine ecosystems show varying degrees of resilience to fishing. The most severely impacted ecosystems are mainly trawled substrates (it takes several years to offset the impacts of trawling). Other habitats could benefit directly from a reduction in fishing activities (e.g. coral reefs in the Seychelles), or indirectly in the case of the mangrove swamps in Senegal (limiting their use for fish smoking following the drop in fish production). Lastly, noise pollution is an impact increasingly considered in ecosystem health. Acoustic communication in many species has certainly improved due

to the slowdown in navigation, in general, and shipping activities, in particular.

One unexpected consequence of the COVID-19 pandemic concerns the Marine Protected Areas (MPA). Although the MPAs are often the source of conservation instruments, they are increasingly being incorporated in fishery management measures such as the Banc d'Arguin National Park in Mauritania, and the MPAs established in Senegal and Morocco in 2004 and in 2015, respectively. MPA surveillance, shared between the environmental and fisheries services, may include community participation (Senegal). As with fisheries surveillance in general, less effort has been channelled to MPA surveillance in terms of human and financial resources. The case of the Seychelles is particularly interesting: the operation of the MPAs is largely financed by tourism revenue. As with the natural reserves on land, the loss of earnings following the suspension of tourism activities could have a serious impact on MPA management. Despite this, Seychelles decided to create new marine areas in April, thus increasing the protected surface area to 30 percent of their EEZ.

In Mauritania, on 30 March 2020, the Government announced an additional EUR 1.2 million contribution to the Banc d'Arguin and the Coastal and Marine Biodiversity Trust Fund, raising its capital to EUR 32.6 million, EUR 3.1 million of which was from the sector support of EU's Fisheries Partnership Agreement.

The cost of protecting marine diversity

is particularly high in some countries, since MPAs require more control and surveillance resources. The scarcity of these resources could lead to an increase in illegal unreported and unregulated (IUU) fishing in the MPAs, with dramatic consequences for the efforts to replenish fishery resources and conserve biodiversity. An increase in fishing targeting protected species such as rays and sharks listed in the annexes to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is to be feared, as demonstrated by the seizure of 26 tonnes of fins of protected shark species in Taiwan in early May 2020, proof that this illegal market is not impacted by the COVID-19 pandemic.

The monitoring, control and surveillance arrangements include all sea and land activities aimed at ensuring the application of technical measures on fisheries management.

Implications for Sector Policy Implementation

Implementation of Fisheries Development Plans

Most African countries (with the exception of a few least advanced

countries or those without any sector strategy) currently have management plans for the main types of fisheries. These plans are prepared on the basis of scientific data and in accordance with mechanisms involving government departments and the private sector. In normal times, these mechanisms lack resources to hold regular and timely scientific data validation meetings, and consultation meetings on management measures. On two fronts, the COVID-19 crisis has come to penalise efforts by countries that had made the most progress in terms of good fisheries management: first, it has prevented most meetings from being held (private institutions and civil society have few resources to participate in virtual meetings), and second, it has deprived governments of the financial resources essential to implementing such mechanisms.

Scientific Bases of Management

The implementation of monitoring systems, usually carried out by research institutions, has been seriously curtailed by social distancing measures and cutbacks in national budgets. In a crisis, the data collection systems are often considered low priority, whereas, in the fisheries sector in particular, assessment of resources and fisheries pressure (information on catches, data on fishing effort) is essential for routine management (updating of quotas and permit allocations, application of regulatory measures, etc.).

Oceanographic missions used to directly assess fishery resources in relation to marine environment

parameters are an area where inter-state cooperation is highly advanced, particularly among West African regional fisheries management organisations that have a tradition of pooling research resources (dedicated ships) and scientific personnel. At the peak of the pandemic, most of these cruises were postponed or more often cancelled (for instance the international cruises of R/V Nansen, under the aegis of the United Nations Food and Agriculture Organization, which take on board scientific teams from each country concerned on the continent's Atlantic coast). Discussions with scientific teams usually made in several West African ports have become impossible during the crisis. It is worth noting that these cruises are scheduled at fixed periods and their postponement makes it impossible to obtain consistent data. Lastly, the gaps in the resource and environment time series data have had a negative impact on all these countries, which for years have sought to establish fisheries policies based on scientific rigour.

Fisheries Monitoring, Control and Surveillance Measures

The monitoring, control and surveillance arrangements include all sea and land activities aimed at ensuring the application of technical measures on fisheries management: control of fishery closure periods and areas, compliance with catch limits where quota management exists, compliance with specifications of fishing gear (mesh, length) and catch sizes, recording of discards and indirect catches, etc. They comprise



health control measures, including handling conditions for fisheries products on-board, during offloading and in processing and selling areas. All these activities are carried out by specialist agents, including scientific observers on industrial fishing vessels, crews and controllers on-board surveillance vessels, as well as inspectors on land in the different landing sites. Implementation of these measures requires considerable interaction between these agents, crews and land-based operators.

The constraints imposed by social distancing measures have seriously impeded these activities and increased

the risk of violating the regulations. In Mauritania and Seychelles, no observer has boarded industrial fisheries vessels since the onset of the crisis. Regarding ship and catch inspections, only Mauritania very rapidly (early March) established a series of appropriate procedures for protecting controllers' health (strict compliance with social distancing, mask wearing and cleaning of control equipment). In Morocco and Seychelles, procedures were also established to limit interaction between surveillance officers and crew members.

To address these difficulties, remote monitoring systems through on-

board cameras and drones are already operational in some countries. It would be worth taking advantage of the crisis to test their applicability in Africa.

Several NGOs (including CAPE-CFFA) have expressed concerns regarding attempts by some countries to relax their control and surveillance efforts to facilitate the work of economic operators in the fisheries sector. Similar to the World Trade Organisation's guidelines on international trade restrictions, it is necessary for countries to make trade-offs in strict compliance with the common interest by ensuring the security of current activities, without jeopardising the availability of natural resources in the post-crisis period.

Participatory management initiatives and fisheries development processes have been destabilised and consultations between actors are particularly limited since many of them lack the resources to participate in virtual meetings

Impacts on Fisheries Good Governance

There is a serious risk that, as a result of the shock created by the Covid-19 pandemic, the attention of many political leaders and

administrative officials as well as community organisations and civil society in general, will be diverted from other major policy, social, economic and environmental issues, especially natural resource and fisheries governance. This crisis could seriously disrupt the operation of institutions at all levels (for instance whenever management committees and fishermen's associations focus on the immediate objectives of mutual aid and assistance to their members or become the main intermediaries in information campaigns on the disease and the distribution of protective equipment). Such situations discourage or contribute to the abandonment of participation in resource management. Moreover, some reforms have been suspended, while many decisions are taken hurriedly without consultation and compliance with the principles of accountability, transparency and ethics, thereby increasing the risk of corruption.

Lastly, the involvement of civil society as a watchdog for natural resource governance is paramount in this crisis period when citizens are less vigilant and consumed by information from the media and social networks. Since the onset of the health crisis, most formal meetings have been cancelled or replaced by virtual meetings. Field trips and statistical data collection have been suspended. Participatory management initiatives and fisheries development processes have been destabilised and consultations between actors are particularly limited since many of them lack the resources to participate in virtual meetings.

Again, the situation varies considerably from one country to another, and to-date, it has been impossible to draw a final conclusion on governance issues.

Fishing Agreements and Licensing

In Senegal, a Commission for the Allocation of Industrial Fisheries Licenses was established in 2016 to yearly determine the number of vessels in each category that will be authorised to fish. This Commission comprises the Fisheries Department and



professional organisations within the sector. The formal meeting scheduled for early April 2020 was replaced by exchange of correspondence and electronic documents. According to some actors, the different stages of the process was not followed and the allotted timeframe prevented a comprehensive review of the license application dossiers. This situation

produced a series of extremely angry reactions between the different actors, sometimes echoed by the press. Although this case illustrates the difficulty of replacing a natural *modus operandi* by a virtual one, it also demonstrates the ability of civil society organisations to oversee the governance and natural resource management process.

In Mauritania, when the Fisheries Partnership Agreement lapsed in November 2019, negotiations continued during the first quarter of 2020. This Agreement is the world's most important in financial terms, with an annual EUR 60 million payment by 58 European vessels for access to Mauritanian resources. Mauritanian artisanal fisheries organisations have been particularly active in tabling their claims before the negotiators, which concern almost all aspects of the agreement (fishing zones, distribution of quotas, training and sector support). Given the merits of these claims and the need to comprehensively review the content of the future agreement, the parties have agreed to extend the previous agreement by one year (European Parliament, 15 May 2020). Concomitantly, the crisis has not prevented the initiation of the investigation by the General State Inspectorate of Mauritania into the granting of octopus fishing quotas following allegations of complicity in favour of joint Sino-Mauritanian companies. This investigation could enable Mauritania to meet the requirements of the Fisheries Transparency Initiative (FiTI) (see "Transparency Initiatives in the

Fisheries Sector" below) in terms of beneficial ownership of vessels and fishing licenses.

In Seychelles, the renewal of the Fisheries agreement with the EU which expired in January was also subjected to pressure from artisanal fishermen concerning tuna fishing management. This resulted in the temporary suspension (in March 2020) of European vessels from fishing in Seychelles waters even though such vessels continue to land tuna caught in other areas of the Indian Ocean.

Transparency Initiatives in the Fisheries Sector

With specific regard to the current crisis, efforts must be made to ensure greater transparency in the fisheries sector since sound fishery resource management will enable the sector to contribute to a speedier recovery following the end of the COVID-19 pandemic in terms of food security, jobs and income for fragile segments of the population. However, difficulty in accessing information remains the main challenge for transparency in the fisheries sector.

This is the challenge that FiTI - a mechanism that addresses the requirements of transparency and participation in the fisheries sector - is attempting to take up. FiTI is presented as a code of good conduct that enables a country to comply with a series of standards affecting every component of the fisheries sector by involving central government, fisheries sector operators and civil society, as well as

development partners as observers. It is based on the publication of all national legislation, all fishing licenses and all available statistical data. So far, Mauritania (since December 2018) and Seychelles (since 3 April 2020) are the only countries to have completed all the stages prior to becoming FiTI candidate countries.



Remarkably, Mauritania and Seychelles both launched bidding in May 2020 for the recruitment of firms to compile their first national report. This is a milestone that will enable them to become the first FiTI compliant countries since the standard's adoption in 2017. However, the difficulties experienced by actors during this crisis period could hinder this work,

specifically because of the difficulties in organising meetings between actors and validating information.

Regional Cooperation to Combat Illegal, Unreported and Unregulated Fishing (IUU)

The reduction of controls and easing of surveillance measures combined with a lack of information from operators at sea, could contribute to the intensification of IUU fishing. Several analyses have shown that IUU fishing increased considerably during crises (Ebola, civil wars) experienced by countries such as Guinea, Guinea-Bissau, Liberia and Sierra Leone.

IUU fishing is not only carried out by foreign vessels, although an increasing number of IUU fishing vessels are based in areas with reduced regulation such as the Guinea-Bissau/Senegal joint management area, the borders of the Guinea, Guinea-Bissau and Sierra Leone EEZ or waters of States not internationally recognised such as Somaliland. IUU fishing is also carried out by ships flying the flags of coastal countries that engage in illegal practices in neighbouring territories or that tranship unreported catches at sea to other fleets. Such practices are extremely difficult to detect and prevent by countries with limited technical, human and financial resources (as recently observed in Ghana). Moreover, surveillance is mainly carried out in territorial waters (12 nm) and rarely at EEZ level.

For these reasons, efforts to combat IUU fishing are coordinated regionally under the Lomé Protocol (2016), with

bases in West and Central Africa and the Indian Ocean. This regional coordination remains confined to the limited sharing of information and periodic joint operations (air, sea and land resources) involving fishery surveillance services and the naval and air forces of member countries.

Since the onset of the COVID-19 crisis, a single regional fisheries cooperation organisation (the Fisheries Committee for the West Central Gulf of Guinea (FCWC-FISH) has mobilised to provide member countries with resources to combat IUU fishing.

Remarkably, Mauritania and Seychelles both launched bidding in May 2020 for the recruitment of firms to compile their first national report on Fisheries Transparency Initiative.

However, beyond IUU fishing, the whole issue of maritime security and safety is at stake. Dryad Global, the British maritime security intelligence company, estimated on 2 March 2020 that the fight against Covid-19 could seriously weaken maritime defence systems in sub-Saharan Africa if the pandemic were to become a top priority in some countries, and efforts made to reduce maritime crime in West Africa would most likely be neglected. It is clear that piracy attacks have considerably increased since the start of the crisis. As of 30 April 2020, 53 kidnappings of sailors

had already been recorded in the Gulf of Guinea, i.e. in four months, half of the number of cases recorded for the entire 2019 (111 out of 360 cases globally). Also, for the first time in the region, fishing vessels have been the victims of piracy (kidnapping of six sailors on trawlers in Gabon in early May), whereas oil tankers and cargo ships are usually the targets of such attacks.

Gender Implications

Although the pandemic affects everyone, women suffer disproportionately because of their relatively disadvantaged situation, specific social obligations and responsibilities. Women also play a key first responder role, ensuring the well-being of their families and their communities. Artisanal fisheries represent over half of fish catches in developing countries. It employs 90 percent of fishermen and fishery workers in the world, almost half of whom are women. The consequences of Covid-19 differ according to gender, principally due to the special contribution of women in the fisheries sector and their frontline interactions with communities. The gender-based division of labour is pronounced in the sector and women mainly carry out all post-catch activities, particularly artisanal processing and micro-wholesale fish trading, as well as a major part of the wholesale and retailing marketing of products, including at regional level.

As in the artisanal environment,

working conditions in industrial units are likely to harm workers' health (injuries caused by cleaning and gutting operations, prolonged exposure to intense heat and inhalation at smoking sites and awkward working postures). While these activities secure jobs and income for tens of thousands of women, their remuneration is directly dependent on individual output. Thus, the decline in fishery activities has resulted in the partial or total unemployment of most of these women, creating severe economic hardship and social insecurity.

Lockdown and restrictions on movements have particularly affected women, whose daily income depends on the sale of fresh and processed fish. This income is mainly used for household needs, particularly food, health and children's education. This crisis could heighten the vulnerability of households, especially women heads of household.

The Covid-19 pandemic has reminded us of the critical importance of hygiene and of the urgent need for long-term improvements in the hygiene and working conditions of men and women in all segments of artisanal fisheries.

Furthermore, preventive measures such as hand washing, the regular cleaning and disinfecting of work sites and instruments are essential to keep the pandemic at bay. However, these measures require access to

water, adequate health facilities and the availability of prevention kits. This applies to all segments of the value chain (fish cleaning, disinfection of equipment and work sites, product icing, packaging for transportation, etc.). This represents a real challenge in many artisanal fishery communities, especially for women who are usually responsible for fetching water.

The Covid-19 pandemic has reminded us of the critical importance of hygiene and of the urgent need for long-term improvements in the hygiene and working conditions of men and women in all segments of artisanal fisheries.

Conclusion

This non-exhaustive note merely confirms that the restrictions on the movement of people and goods, the suspension of air traffic, the closing of land borders and ports, markets and public catering sites are considerably harming the fisheries sector, which depends on the extremely high mobility of economic actors and operators at the national, regional and international level. This damage which is immediate on the economic and social fronts, may also impact food and nutrition security in the short term and, in the longer term, contribute to the negative shock to economic growth from the pandemic. Although the impacts on the resource are negligible, the fisheries sector remains subject to the indirect impacts of the pandemic throughout the value chain.

However, not all countries are affected in the same manner. An analysis of the first three months of the pandemic (from early March to mid-May 2020) in a sample of countries heavily dependent on the fisheries sector shows that adequate responses may be provided by all actors - from political decision-makers to socio-professional organisations. Initially, these responses seem to be contingent not on the pace of the Covid-19 spread but the general level of good governance and relative wealth of the countries considered.

Thus, on 21 March 2020, Morocco - one of the four African countries hardest hit by Covid-19 - established an official list of key sectors of activity that should not experience any interruptions, including fisheries and health care services. Seychelles did the same: official statements underscore the vital nature of fisheries for the national economy and the public health commissioner stated on 7 May 2020 that the fisheries sector remained the only intact pillar of the economy able to generate revenue, two months into the pandemic. In Mauritania, action was taken quickly, but this mainly concerned the adaptation of general measures (social distancing, hygiene) to some segments or categories of fisheries actors. Therefore, on 24 March 2020, the Nouadhibou Free Zone Authority (not the government) launched an awareness raising campaign on the fight against the Covid-19 pandemic in the ports. It was only in May 2020 that Mauritania indicated in its COVID-19 Multisector Response Plan that the fisheries sector was part of

the priority economic activities. In the case of Senegal, the Government promised 'special measures' that 'will benefit the worst affected sectors', without specifically mentioning the fisheries sector.

The fisheries sector, already under significant anthropogenic pressure (overcapacity, environmental deterioration, IUU fishing), could be jeopardised by the many challenges

of political, security and economic governance to which African countries will be increasingly exposed during and after the crisis. Governments must strive to put in place the necessary resources to assist the sector. The actors (central government, private sector and civil society) must rise up to the challenge within a governance framework that in time will contribute to the achievement of better results.



Summary of Best Practices



Drastic measures were taken in the countries to stem the spread of Covid-19. A summary of these measures is presented in Table 1. Relatively few of these measures specifically concerned the fisheries sector. However, where such measures exist, they may be seen as best practices that have enabled the sector to operate normally, at least temporarily.

Adjustment of barrier measures to stem the spread of the pandemic on production sites

- i. Restriction of contacts between crew members and persons ashore, involving complex operations for crew changeover (Seychelles, Mauritania) and specific interventions to prevent the contamination of healthy crews (Morocco) and the premature return of crew members to their homes (Mauritania).
- ii. Social distancing measures on-board fishing vessels implemented fairly rapidly with an indirect impact on the number of crew members and a downturn in activities.
- iii. Attempts to reduce overcrowding on artisanal fishery landing sites with much difficulty, given the nature of operations, the large number of actors (portage, cleaning and scaling, etc.) and the lack of suitable infrastructure (non-existence of mechanised operations, impossibility of wearing masks in many situations, lack of access to fresh water).
- iv. Currently, no outbreak of infection has been reported at the traditional processing sites despite overcrowding and critical lack of access to water for women on the drying and smoking areas. Precautions must be taken and lessons learned concerning hygiene and control measures on industrial sites following at least two major incidents in canneries (Morocco, Ghana) which turned out to be sources of contagion.

Mitigation of the impacts of movement restriction measures on trade and food security

- Many reported cases of difficulties linked to the curfew, border closures and the isolation of regions and the main towns and cities (Senegal, Mauritania,

Guinea), resulting in the loss of products. A few countries (Morocco, Mauritania) facilitated border crossings for goods, especially food products including fish.

- Creation of fish stocks in Mauritania to provide food aid to the most fragile households, and the distribution of fish stocks to over one hundred sites nationwide.

Producer support measures

- Mauritania: coverage by central government of all taxes applied to heads of household working in the artisanal fisheries sector for the rest of the year.
- Morocco: financial support to fishing vessel owners, artisanal fishermen, processing companies and informal sector operators.
- Seychelles: fish purchase and input subsidies.

Fisheries management measures

- i. In Morocco, the application of health measures without modification of resource conservation measures (biological recovery period).
- ii. Concerns about the postponement of the biological recovery periods in Mauritania for artisanal fisheries. The measure aimed at delaying or possibly staggering the return of sailors to their homes has resulted in at least a two-week postponement of the biological recovery period. The impact on the resource and fishing yields will have to be assessed.
- iii. Establishment of new MPAs in Seychelles.

Public and private-sector cooperation initiatives, involvement of civil society and socio-professional organisations in implementing measures to combat Covid-19

- i. Contribution by fishing vessel owners to build fish stocks in Mauritania.
- ii. Fisheries Management Committees transformed themselves into Awareness-Raising Committees (San Pedro Fishing Port in Côte d'Ivoire).

Fisheries Governance

- i. Continuation of transparency initiatives in Mauritania.
- ii. Continuation of the open debate in Mauritania and Senegal on fishing license and quota allocation, provision of adequate means of communication to the different stakeholders, including professional organisations, community groups and the media.

Table 1. Measures taken in the countries studied related to the Covid-19 pandemic

Measures	Senegal	Morocco	Mauritania	Seychelles
Social distancing				
Gathering prohibition	14/03/2020		13/03/2020	Yes
Closing of schools and universities	14/03/2020		13/03/2020	16/03/2020
Mandatory lockdown		20/03/2020		
Mandatory face mask wearing in public places	19/04/2020	07/04/2020		
Border closures	20/03/2020	20/03/2020	13/03/2020	Yes
Quarantine			13/03/2020	
State of Health Emergency	23/03/2020			
Curfew	23/03/2020	Ramadan	13/03/2020	
Market closures	23/03/2020			
Isolation of capital cities/inter-urban transport restrictions			29/03/2020	
Intensification of sensitisation campaign				
Local production of masks and hydro alcoholic gel, etc.		Yes		
Food stocks (fish)			20 000 t	
Food distribution		Ramadan	Yes	
Covid-19 Fund		3% GDP	60 M USD	
Informal sector support		Yes	Yes	Yes

Recommendations for a Strategic Response to the Covid-19 Pandemic and Post-crisis Recovery in the Fisheries Sector

Since the onset of the Covid-19 pandemic and to address economic shocks on the horizon, several international organisations and development partners have made recommendations aimed at preventing the crisis from worsening in terms of food and health security, especially for the most disadvantaged communities. This note draws on some of these recommendations by focusing on the fisheries sector and attempting to adapt them to the specific context of African countries while taking into account the uncertainties surrounding the post-crisis period.

Promote Value Chains and Support all Fisheries Sector Actors

Since fishery product value chains are complex and highly diversified (Figure 1), it is necessary to clearly identify all the stages and actors to ensure consistent and effective support.

- i. Sector support should concern fishery product landing conditions at the point of first sale. Measures to stem the spread of the disease should be adapted to local conditions and their implementation facilitated by enhancing facilities and services at landing sites (the top

priority being access to clean water).

- ii. Although the destination of fishery products is determined by the market, it also depends on opportunities offered to wholesalers who are mostly women. Facilities must be offered to them that will encourage short marketing circuits, to enable them to supply local or national markets with fresh products for direct consumption.
- iii. If need be, the authorities should intervene to purchase part of these products for distribution to the poorest households or by supporting low prices, including cases where demand is falling due to lower consumer purchasing power.
- iv. Governments should also consider creating stocks of fresh products, depending on the availability and capacity of conservation facilities (freezing).
- v. In the absence of sufficient local demand or cold storage capacity, priority should be given to supplying the traditional processing sub-sectors (drying, salting and smoking) and storing these products in adequate conditions.
- vi. Among the modern processing sub-sectors, priority should be given to those that permit long conservation without refrigeration (canneries).
- vii. Access to export markets should be reserved for products that are not essential to the preservation of national/regional food security, or justified by

- viii. significant revenue earnings.
- viii. The supply of fishmeal and fish oil plants should be strictly limited to by-products and waste from the processing chain and prohibited to products that are directly edible or that can enter another value chain.
- ix. The need to improve gender equality throughout the fisheries value chain.
- x. In addition to the population's immediate needs, countries should prioritise regional trade in line with the principles of the African Continental Free Trade Agreement (AfCFTA) which emphasizes "continental preference".
- xi. All measures should be taken to facilitate the transportation of fresh and processed fishery products from the production areas, to areas or countries with food deficit, to limit fish imports from other regions of the world that require payment in foreign exchange.
- xii. As a priority, fishery products should be guaranteed free movement and exempted from all taxes within a regional economic community, especially from a self-sufficient country to another that is not.
- xiii. Such freedom of movement should not be synonymous with the non-existence of health controls. Clear procedures should be systematically applied to all forms of fishery products to ensure their effective contribution to the food and health of consumers. Traceability standards should be gradually

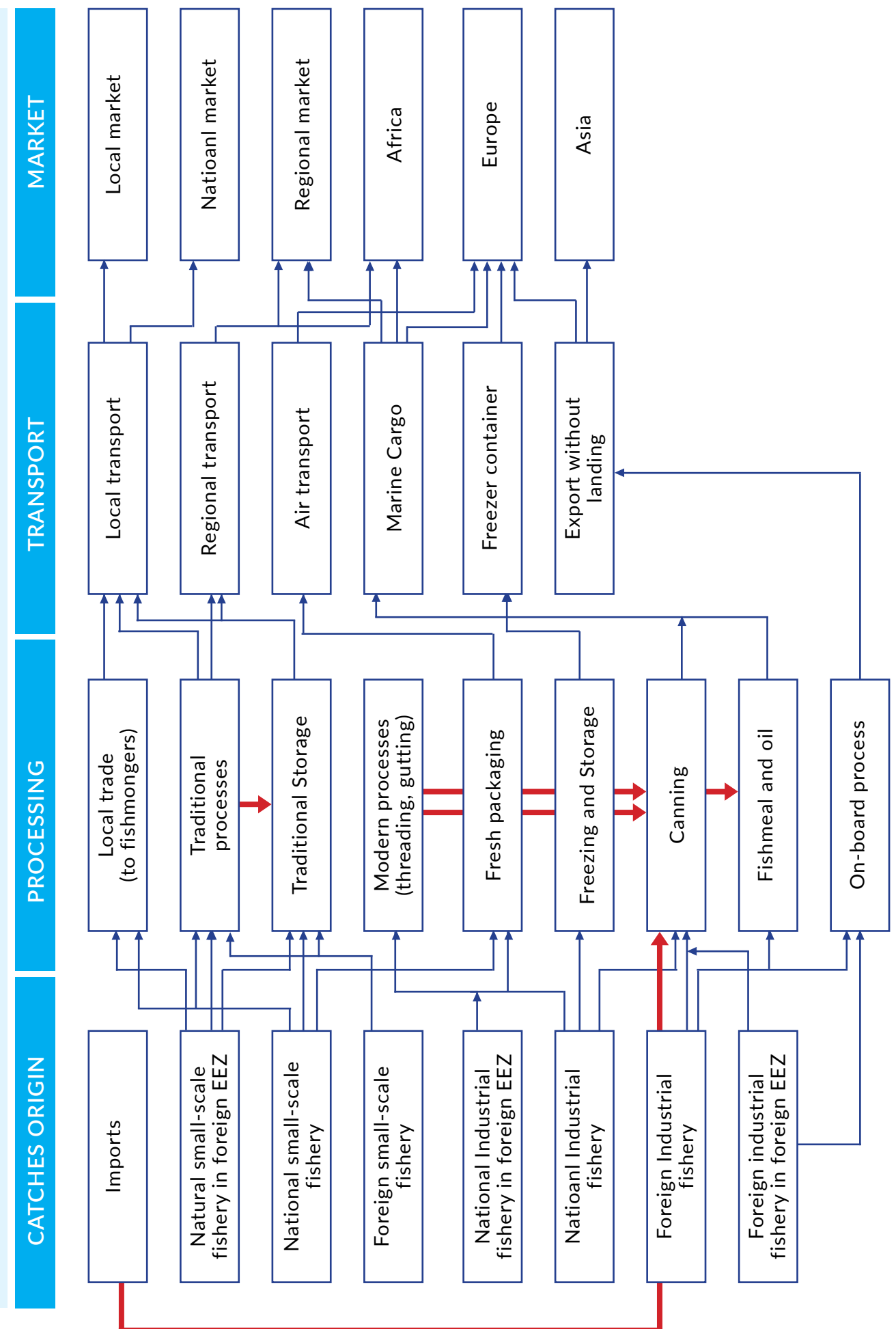
- introduced into fisheries sub-sectors to strengthen the African market.
- xiv. Governments should urgently implement measures to reduce producer costs by cancelling the payment of business taxes and by guaranteeing loans contracted by fishing vessel owners, fishermen, women wholesale fish sellers and processors.
- xv. Credit facilities should also be made available to ensure the rapid resumption of activities, in particular to finance the operation of the sub-sectors (and not investments) as well as fishing inputs (fuel, fishing gear and ice) and access to products for women wholesalers and processors.
- xvi. Women's specific needs in the sector should be taken into consideration accordingly and accurately to enable them to participate effectively in the economic recovery while meeting the needs of their families.

Promote Sustainable Fisheries Management

The crisis has caused malfunctions in the management of many sectors, including the fisheries sector. It is vital to prevent the situation from deteriorating by encouraging public departments to comply with sector policies or to revise them as soon as possible to make them more efficient.

- i. Governments should duly exercise their sovereign functions especially by strengthening surveillance (on-board inspection, vessel monitoring system) and

Figure 1. Illustration of diversity of marine fisheries sub-sectors



- control (inspections) systems at sea (IUU fishing, transshipments) and on land (State Port Measures on vessel and cargo tracking).
- ii. Maintenance of statistical data collection, resource assessment and environmental monitoring systems is essential for enlightened decision-making on fishing capacities and the issuance of fishing quotas and licenses.
- iii. To maintain the operational status of consultative frameworks between actors, States should invest in information and communication technologies to ensure the participation of all stakeholders in formal meetings on fisheries management (validation of scientific data, Fishing Authorisation Allocation Committees, negotiation of fishing agreements with third countries, etc.).
- ii. Depending on the country, priority should be given to the small-scale fisheries sector by objectively determining the proportion of fishery resources that can be transferred to other segments under fair fisheries agreements (in particular, the case of deep-sea fisheries).
- iii. Trading in fishery products should be assessed to give preference to local and regional markets. Trading with other world regions should be the subject of in-depth economic, social and environmental studies and renegotiated under fair trade agreements that do not penalise national producers.
- iv. Fishery policies should include resource and marine ecosystem conservation and restoration measures linked to marine and coastal ecosystem protection objectives.
- v. More generally, the fisheries sector should be mainstreamed in all State policies, be they social (protection of women's and family rights, protection of informal workers), trade or environmental.
- vi. States should align fishery policies with other sector policies.

Prepare and Implement Sustainable Sector Policies

Regardless of the length of the crisis, its impacts will be serious enough to justify the overall revision of public policies in many sectors. Natural resource management policies should be objectively assessed immediately, to effectively contribute to sustainable and inclusive development goals in African States.

- i. States should prioritise fisheries sector objectives more effectively and retain only one or two (employment, food security, fiscal revenue). They cannot all be achieved simultaneously.
- i. Recognise communities or associations of fishermen, wholesalers and processors as key economic operators

Strengthen Fisheries Good Governance

It is necessary to:



- (professionalization of the sector) in their capacity as producers of nutrient-rich foods.
- ii. Build the capacity of actors through training that will allow them to exercise their rights and discharge their obligations and provide them with the necessary tools.
- iii. Maintain governance frameworks operational, especially the decision-making mechanisms based on scientific and technical data, particularly within the context of fisheries development plans.
- iv. Empower (control, monitoring and evaluation) key sector actors (management committees, civil society and non-governmental organisations) operating within public bodies.
- v. Ensure consistency and synergy between the different sub-sector actors.

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